Cairo: The Divided City

Policy versus reality and the journey to sustainability

Mostafa ELBESHBESHY

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Declaration of Authorship

I, Mostafa ELBESHBESHY, hereby declare that this thesis and the work presented in it is entirely my own. Where I have consulted the work of others, this is always clearly stated.

Printed name: Mostafa ELBESHBESHY

Signed:

Date: 15 / 11 /2017

Abstract

Officially, over 43% of the Egyptian population lives in urban areas, posing a real challenge to meet people's needs in this predominantly arid environment, especially considering that only around 6% of Egypt's land is populated (CAPMAS, 2016; MHUUC, 2012). The official data underestimate the actual urban population because they do not include other urban forms such as urban villages (Bayat and Denis, 2000). Inadequate policies have rarely managed to keep pace with the always-changing socio-economic and political transformations. The research aims to understand Cairo's housing ownership mechanisms in relation to the official housing policies and their implementation by exploring the government's perspective and residents' lived experience of place in informal settlements, gated communities and in new satellite cities in Cairo.

The methodology is of a qualitative nature and reviews how housing policies regulate housing ownership mechanisms in Cairo, investigates why most Cairenes reside in informal areas, evaluates how the New Cities perform in relation to the housing issue in Cairo, and offers prospective recommendations to narrow the gap between policy and reality. This analysis evaluates housing stakeholders' divergent realities in terms of housing policies and its implementation in Cairo, and reveals the state's inability to mitigate the housing issue. The findings show that housing policies attempt to regulate housing ownership mechanisms in Cairo through an ineffective institutional structure; that affordability, flexibility, and suitable socio-economic environment play a decisive factor why most Cairenes reside in informal areas; and that the failure of social housing to provide adequate shelter for poor- and middle-income Cairenes has triggered the alteration of the initial aim of the New Cities, which are now targeted towards higher-income classes. The research concludes with a number of recommendations. The study contributes to the limited empirical evidence and helps to develop a holistic picture of the housing issues in Cairo, paving the road for future endeavour in the journey to greater sustainability as outlined in the New Urban Agenda and SDG 11.

Table of Contents

List of Figures

List of Tables

List of Plates

List of abbreviations

AFLPA	Armed Forces Land Projects Apparatus
AUC	American University in Cairo
BCE	Before the Common Era
BH	Beverly Hills
CAPMAS	Central Agency for Public Mobilisation and Statistics
CBE	Central Bank of Egypt
CBR	Central Bureau for Reconstruction
CEDEJ	Centre d'Études et de Documentation Économiques, Juridiques et Sociales [Centre for Economic, Legal and Social Studies and Documentation]
COA	Council of Arabs
EAF	Egyptian Armed Forces
EFSA	Egyptian Financial Supervisory Authority
ER	Elrehab
FGF	Future Generation Foundation
FHP	Future Housing Programme
GOPP	General Organization for Physical Planning
GECs	Governorate Executive Councils
GPCs	Governorate Popular Councils
GSF	Guarantee and Subsidy Fund
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit [The German government's international co-operation agency]
HDB	Housing and Development Bank
IAURIF	Institut d'aménagement et d'urbanisme de la région île de France [The Institute of Planning and Development of the French Region]
IMF	International Monetary Fund
ISDF	Informal Settlement Development Fund/ Ministry of Urban Renewal and Informal Settlements (MURIS)
LPCs	Local Popular Councils
MDGs	Millennium Development Goals
MHUUC	Ministry of Housing, Utilities and Urban Communities
MLD	Ministry of Local Development
MN	Manshiat Naser
MOP	Ministry of Planning, Follow-up and Administrative Reform
MT	Maspero Triangle
MYP	Mubarak Youth Programme
NHP	National Housing Programme
NSHP	National Social Housing Programme

NAC	New Administrative Capital
NTP	New Towns Programme
NUCA	New Urban Communities Authority
NGO	Non-Governmental Organisations
Own fieldwork	It refers to my fieldwork, non-participant observation, informal discussions with local residents and my interpretation of specific situations
RCC	Revolutionary Command Council
SAP	Structural Adjustment Programme
SCLA	The Supreme Council of the Local Administration
SDG	Sustainable Development Goals
SHF	Social Housing Fund
UNCHS	United Nations Centre for Human Settlements
USAID	United States Agency for International Development

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Chapter 1: Introduction

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The population of Egypt exceeds 92 million, over 43% of whom live in urban areas (CAPMAS, 2016). However, this number is questionable due to the administrative definition of 'urban' (Bayat and Denis, 2000). For such a substantial population, it has become increasingly challenging to meet people's basic needs in this predominantly arid environment. This means people struggle to have enough food to eat and potable water to drink, an adequate home and good levels of education and employment. Once the basic needs are not being met, peace is threatened. To some extent, this is one of the reasons for the last five years of political unrest and public demonstrations in Egypt, predominantly in Cairo.

As soon as security is put at risk, people fail to aim to realise their potential (DFID, 2006). Hence, Maslow's hierarchy of needs is drastically affected. Maslow (1943) argued that his five-tier motivational theory in psychology reflects how people are motivated to achieve specific needs – 'physiological', 'safety', 'belonging/love', 'esteem', and 'self-actualization'. The first four layers represent the 'deficiency needs' and when these are not met the person will feel tense and anxious. Indeed, the revolutions that have overwhelmed Egypt since 2011 have had at their core (among other things) the motivation to meet the basic need for safety through shelter. They were attempts to fight against political and administrative corruption by calling, amongst other things, for public involvement in the planning process of government decision making at all levels. This is what development should be about – ensuring that every individual, regardless of birth circumstances, lives in 'freedom' (Sen, 1999; Benn, 2006).

Development should not be regarded only as caring for the poorest communities but rising beyond the expectation of addressing poverty and enhanced governance. In 'Development as freedom', Sen (1999) argues that millions of people live constrained by financial poverty,

political oppression, violence and sickness. Moreover, Sen develops the idea that freedom refers to provision of shelter, food, water, education, job, healthcare and other basic needs. Even with improvement over the past decades, development is still uneven across the world (ibid; DFID, 2006). Therefore, in the search for sustainability, urban development should be accessible, green and fair that involves efforts in cities and in societies (Simon, 2016a). "*The battle for sustainable development will be won or lost in cities*" (Eliasson, 2015 cited in UN, 2015a, p1). That was stressed in global concern for the challenges we face and the desire and need for a better quality of life and better tomorrow through the formulation and implementation of many international papers and conferences (e.g. UN conferences in 1976 and 1996, Agenda 21, Millennium Development Goals, Agenda 2030 for Sustainable Development, and the New Urban Agenda).

Throughout history, Egypt has endured long decades of dictatorship, loss of resources, class conflict, neglected communities, where their basic needs had become both inadequate and scarce. Inappropriate policies have rarely managed to keep pace with the always-changing socio-economic and political transformations. Therefore, it is safe to say that Cairo is a complex city, a blend of old and new, East and West. It contains the contrasting lifestyles of a peasant village, a pre-industrial city, and a modern metropolis. Greater Cairo, with its different forms of housing, is in the grip of a housing crisis that has been causing misery for millions, and the crisis looks set to intensify with the currency floating in November 2016, political crisis and harsh economic conditions that intensified with the recent economic reforms (e.g. increased custom tax up to 60%, increased prices of products). Although hundreds of thousands of housing units are built every year in the capital by different stakeholders (e.g. state, private sector, individuals), the housing crisis still prevails. Nevertheless, what has triggered this housing crisis?

Greater Cairo, Egypt's capital, is one of the largest urban agglomerations worldwide; it ranked the ninth largest in 2016 (UN-DESA, 2016). It represents one of Egypt's 27 governorates and one of the seven Egyptian planning provinces that are based on economic criteria. Around 20% of the Egyptian population (51.5% of urban population) live in Greater Cairo (GC) (CAPMAS, 2016; UN-DESA, 2016). Although great efforts and investments in terms of the number of units built and capital expenditure were assigned to this megacity (see Tables 5.4, 5.5 and 8.2), Cairo still faces many challenging issues that affect the quality of life in this divided city. These include socio-economic inequality, radical change in socio-cultural norms, rapid growth of informal settlements, traffic congestion, pollution, overcrowding, and environmental change. This research aims to investigate how and why Cairo has inherited its housing problems alongside its path to development in order to deepen our understanding of Cairo's housing ownership dynamics by developing a holistic framework of recommendations in relation to housing policy.

As an architectural and urban planning student at Cairo University from 1998 to 2003, a significant amount of my coursework involved researching the informal areas within Greater Cairo. Working in teams, students sketched and proposed design guidelines to develop and find solutions to various problems within districts. Throughout the undergraduate course, I witnessed serious urban issues that Cairo struggles with and decided to further my studies in the impact of planning upon urban development. Upon relocation to the United Kingdom, I obtained my MSc in International Planning and Sustainable Development with the University of Westminster. As a result of the greater awareness of the urban problems facing megacities in poor countries and a rising sense of responsibility towards deprived people, I have now undertaken an in-depth analysis of Cairo's urban problems – mainly focusing on housing ownership in regard to urban policies – for this doctoral thesis.

This study incorporates innovative approaches in conjunction with a field survey to produce guidelines and recommendations regarding planning and decision-making processes. The rationale behind this objective is to understand the deficiencies of the urban policies that have often failed to improve and manage the basic need for acquiring shelter. The key strategy employed to meet this objective is to provide recommendations in which the residents will be at the heart of policy-making processes when considering land and housing ownership system, housing policy, governance and sustainable development.

It is a continuation of the master's degree in international planning and sustainable development and aims, amongst other things, to raise awareness about urban sustainability in the residents of Cairo. The intrinsic motivation to undertake such a challenging task comes from the desire to make a difference for those around me. In order to be in a position that allows me to create and implement housing policies, I needed to acquire the appropriate knowledge and understanding, critical analysis, status and diplomacy. A PhD seemed to promise all these, beside the wish to put in my writing and my neighbours' experiences of living in Cairo. Ultimately, "*you don't write because you want to say something, you write because you have got something to say*" (Fitzgerald and Bruccoli, 1978, p52).

1.1. Background and theoretical framework

1.1.1. The rapid rate of urbanisation and its impact

Since the end of World War II, urbanisation in countries of the global South has accelerated, albeit in geographically and temporally differentiated ways, with a growing proportion of the urban populations of many countries clustering in large urban agglomerations (Kuroda, 1987; Abiodun, 1997). Egypt has been one of these countries. Nowadays it has become a cliché to say that the planet's future depends on urban developments, and poor countries contain the

fastest-growing urban settlements in the world (UN, 2014b). At present, 54.5% of the global population of more than seven billion people reside in urban areas (UN-DESA, 2016), in comparison to only a fifth a century ago and the prediction is that by 2030, 60% of the global population will live in cities (ibid). According to O'Connor (1983), when one refers to the term 'urbanisation' one ought to reflect upon its two meanings - urbanisation seen as a change in the pattern of settlement and urbanisation perceived as a social process. Therefore, the largest cities will "*serve simultaneously as national and regional engines of economic growth, centres of technological and cultural creativity, homes of the poor and deprived, and the sites and sources of environmental pollution*" (Fuchs, 1994, p2).

The capacity of numerous megacities around the world to accommodate their growing populations is way behind the pace of urbanisation. One of the most alarming issues regarding rapid urbanisation in the world's poorest cities is that the process thrives in the face of falling wages and increasing prices (Davis, 2007). The rapid growth of deteriorating towns and informal settlements that have formed around many of the world's metropolises stands as visible confirmation of what some scholars termed 'over-urbanisation' (Gugler, 1997; Rakodi, 1997a; Myers and Murray, 2006), which is to be seen as a disputed term (Gugler, 1982; Bayat and Denis, 2000). Such an example is represented by African trends of urbanisation, where expanding cities are sometimes seen as being in a 'shock of over-urbanisation' (Knox and Marston, 2003). Like many other African cities, Cairo faces urban crises that involve shortages of housing and jobs, prevalent poverty, critical environmental issues, inadequate public services and ineffective local government structures (Stren and White, 1989; Simon, 1992; Rakodi, 1997a; Tostensen *et al*., 2001; Myers and Murray, 2006).

Cairo is becoming more of an informal megacity in many respects, and informality should be assumed as a key feature of the contemporary city that actively generates a distinctive kind of housing dynamism (see

Chapter 7). Moreover, taking into consideration the key reasons for the urban crisis in Cairo, and African cities at large – corruption, mismanagement, inappropriate urban policies and inefficient governance (Abu-Lughod, 1971; Simon, 1992; Elshakhs, 1997; Tostensen *et al*., 2001; Singerman and Amar, 2009; Singerman, 2011a; Sims, 2012) – there is hardly any practical advice on how the crisis situation can be reversed. The existing governance system not only maintains the divided city of Cairo but also deepens the urban crisis (see Chapters 5 and 6). In short, our current understanding of cities' dynamics as well as the ways to manage them effectively is limited (Rakodi, 1997a).

1.1.2. Urbanisation and housing issues

As one of the basic human rights, shelter is a main concern in all African cities (Tostensen *et al*., 2001) due to the challenges dwellers face, including extreme competition for resources, while their governments fail to provide housing. A high proportion of African cities' population has experienced enormous income cuts, heightened redundancy and public services depravation as a result of structural adjustment policies (Simon, 1992). Throughout Egypt's history, conflicts over land ownership have been seen as a demonstration of power and wealth (Yousry and Aboulatta, 1997). In 2012, only 6% of the Egyptian land area was populated (MHUUC, 2012). Moreover, migration and natural population growth caused a greater demand for housing (Harris, 1992; Arandel and Elbatran, 1997). Urban authorities in Cairo, along with private developers, are struggling to meet the increasing demand for shelter (Sims, 2012). In order to cope with such increased population rates, urbanites in Cairo are responding to this challenge by allowing informal settlements to develop.

In African contexts, taking into consideration the status of capitalism on the continent, the issue of structure versus agency is prominent (Simon, 1992). Most African countries depend upon imports to meet their needs as the forces of production are less developed than in other

developing regions as opposed to predominant sphere of circulation across the continent (Meillassoux, 1981; Simon, 1992). As a result, people react actively to life conditions and often generate new prospects, regardless how confined they might be (Simon, 1992; Bayat, 1997a; b). One dramatic such example is Cairo where poor residents have found a way to fulfil their need for shelter 60-80% of Cairo's population by sprawling informal settlements (Bayat and Denis, 2000; Sims, 2012).

With the increased levels of urban growth and size of the city, effective management of urban development policies concerning housing is vital. Some of Cairo's districts have developed without formal planning, resulting in a critical lack of services, commonly referred to as 'the urban crisis' in Africa (Stren and White, 1989), while Cairo's formal districts (e.g. gated communities, governmental housing programmes) have been developed in an unsustainable manner. Contemporary urban housing production processes, in conjunction with management patterns, have amplified the urban chaos of Cairo. In the fight for land, the poor turn out to be marginalised due to the absence of sufficient income, laborious bureaucratic policy-making processes and allocation procedures based on favouritism and campaigned clientelism. Consequently, most Cairenes in striving to acquire shelter, form their own judgement that does not fit in with official governance concepts for the city. This calls for a comprehensive review of housing ownership dynamics (as part of housing and land mechanisms) in Cairo with the aim of providing recommendations for appropriate housing policy towards a sustainable city.

1.1.3. Housing between policy and informality

Local authorities are struggling to respond effectively and efficiently to the intensifying urban crises. Inadequate, rushed policies devised by African central governments have at times aggravated the situation. They have been unable to formulate new governing frameworks to aid urban residents in enhancing their livelihoods, shelter and services.

Meanwhile, frustrated urban residents have grouped into voluntary associations to provide services that state institutions do not do on time (Simon, 1992; Tripp, 1992; 1997; Stren and Halfani, 2001; Tostensen *et al*., 2001; Simone, 2004; 2005). The socio-economic endurance of the poor is subject to self-exploitation and urban degradation, generating only insignificant returns, despite the massive spending of time and effort (Davis, 2007; Lorenço-Lindell, 2002; Myers and Murray, 2006). As a result, organisations such as private voluntary associations, community-based organisations and people's self-help activities have emerged, though they face difficulties in maintaining their autonomy and administering their own capital (Singerman, 1997; Myllyla, 2001).

In order to achieve political stability that would support sustainable urban development, all stakeholders should be taken on board the policy-making process. When public participation is limited and the authorities fail to meet the public demands, intense social movements rise in the city. These violent outbreaks could be inferred as symptoms of the urban crisis (Kharoufi, 1994), as the case in Cairo riots and uprisings in 1977, 1984, 2008 and many since 2011. The allegation that Cairo cannot be governed effectively has much to do with the dominant and longstanding preoccupation of the government with maintaining its indivisible power, which constrains mobilisation of people fearing security outbursts (Sullivan, 1983). What we ought to ask ourselves is how Cairo can function effectively in terms of housing?

The challenge set by this research is to assess critically how Cairenes shelter themselves in terms of ownership. At a brief look, vitality seems to be the term describing those urban residents who seek property ownership while relying on their own inventiveness to meet their basic need for housing. Yet, looking per ensemble, we notice the degeneration and stagnation of the city despite the resourcefulness and determination of the numerous millions of Cairenes to create their homes in this urban chasm (Simone, 2004; 2005a; b; Abdoul, 2005).

These ideas have been perpetuated by the influence of inappropriate European and North American opinions on what a 'good city' should look like and how it should operate (Swilling, 1997; Said, 2003).

Cairo is in great need of effective governance (e.g. transparency, accountability) and management, renovated infrastructure, increased public participation in decision-making processes, sustainable incomes, and improved opportunities for socio-economic progression. Westernised developments (e.g. master plans, globalised architecture, planning standards) are failing to encompass (middle) eastern perceptions such as dominant-gender activities that limit female activities in public and semi-private spatial settings during evening time (Abdelmonem, 2012) (see Figure 2.6), or at least to adapt to the arid climate (Aljayoussi, 2012). Therefore, there is a need to keep revising housing policy and its decision-making processes for better achievement: as Tipple (2010) argues, housing and development standards must be continually reviewed to ensure affordability while not compromising key health and safety concerns, nor compromising environmental conditions. Accordingly, my research aims to narrow the gap between existing urban policies and their practical application regarding housing ownership, considering the wider context of the built environment, while linking descriptive with critical urban studies (Simon, 1992). Thus, I have endeavoured to voice the perspectives of all housing stakeholders - officials, residents and other relevant groups (Said, 1993), in order to understand housing ownership mechanisms, especially the informal housing. As Simon (1992) affirms, the quintessence of a capital city cannot be appreciated without taking into account its components.

1.2. Research objectives

The aim of the research is to narrow the gap in the Egyptian urban literature by incorporating my descriptive assessment within a critical analysis of housing ownership issues in Cairo by exploring perceptions of all housing stakeholders (e.g. officials, private, academics, users).

The theoretical gap has occurred as a result of a lack in qualitative and socio-culturally responsive user-governing mechanism, and a surplus of quantitative and normative regulations. In practice, the gap is exacerbated by the persistent top-down housing processes, particularly in relation to the Egyptian low-income housing policy, which demonstrates little or no consideration for user involvement. The situation is aggravated by the sheer number of low-income people in desperate need of housing and the government's future plans to deal with this problem through building millions of housing units in walk-up blocks. Besides, the poor's informal housing activities are being opposed by the government. Under these circumstances, it seems that low-income people who seek housing ownership in Cairo have been left with no choice but to aspire to public housing units, which are difficult to acquire, and are not likely to fulfil their socio-cultural needs.

Due to the fact that urban planners and city leaders have a rather superficial understanding of the city as a 'living organism', they prefer to adopt western master plans, failing to develop and maintain the unique heritage and characteristics of the city. Segregation is an implicit part of this research, thus the westernised lifestyle of the rich which has created a decline in the traditional way of living and the poor slum-dwellers, as identified in the BBC documentary (1993) 'Cairo, the mother of megacities' are to be illustrated in this study. The city's segregation is not only a theoretical or conceptual matter – it is reality for the residents. Like many sub-Saharan African cities, Cairo is spatially and socially segregated between the urban rich living in luxurious housing gated communities and the urban poor dwelling in informal areas (Silva, 2015). The urban poor having limited access to affordable housing and land, they counter these conditions actively by building informal settlements, engaging in land and property trades, and offering housing units for rent to gain extra income. These informal settlements are often not known about and are ignored by the rest of the city especially at the official level.

Therefore, urban housing is addressed in various ways in academic and policy discourses. Discussions of housing usually occur under a 'dualist' conception of formal/ informal, particularly in terms of urban policy, seeing urban informal settlements as static categorisations – fuelling the segregation view (Abdelmonem, 2016). Another way in which the city is being portrayed highlights social processes. This view perceives informal settlements as ordinary places as opposed to isolated or dysfunctional. The aim is not to contextualise the different urban housing settlements (e.g. informal settlements, gated communities, governmental housing programmes) but to explore their intricacy as places and to emphasise the residents' lived experiences, in order to address some of housing policies problematic issues.

The broader aim of this research is to analyse housing ownership dynamics of Cairo in order to provide deeper understanding of housing and hence recommendations to address the policies and their application in reality, and to raise the awareness of sustainability in Cairo. In other words, it aims to understand Cairo's housing ownership mechanisms in relation to the housing policies and their implementation in reality by exploring residents' actual experience of owning a place in informal settlements, gated communities and in new satellite cities (governmental housing programmes) in Cairo, and also by looking at housing from the government's perspective through its housing policies, building regulations, and central and local authorities. In short, it is to understand housing ownership mechanisms from the residents' (bottom up) and the government's (top down) perspectives to tell part of the overall story of Cairo's housing in as holistic a manner as possible. The objective ought to be achieved through considering the consequences of inappropriate urban policies and their impact on urban development in order to address the informal settlements which house about 63% of Cairo's population (Sims, 2012). Consequently, there is a need to assess the housing policy in relation to reality.

The overall research goal splits into three steps. First, to review official housing policy and housing management of Cairo in relation to

residents' needs, thus a top-down approach. Second, to examine ownership mechanisms in three different housing types in Cairo, as well as identifying potentialities and constraints that affect housing development – bottom-up. Moreover, it seeks to investigate whether and how residents are being engaged in the planning process and decision-making, and the practicality of involving stakeholders in development mechanisms for providing housing. Third, to analyse the housing outcomes and provide appropriate recommendations. Recommendations based on the findings of the fieldwork research aim to help developing more effective housing policies and raise the awareness of urban sustainability, thus improving access to housing for all residents and in particular low- and middle-income households. These research objectives have led to formulate the research questions, as outlined below.

1.3. Research questions

The argument of this study is that housing is a multidisciplinary field that cannot be understood without appreciating the intangible aspects (historical, cultural, social, economic and political) that influence urban settlements to produce tangible forms of built environment. The hypothesis that propelled this systematic study referred to the question of why Cairo remains beset by a housing crisis and informal housing although the state has implemented successive different strategies (e.g. new satellite cities) since Egypt's independence in 1952. I aim to demonstrate that although Cairo is trying to live a westernised life in some respects (e.g. free markets, western urban planning) driven by its elite and government, it has not changed its profound socio-cultural, urban, economic and political characteristics and is therefore heading more towards urban informality and marginalisation rather than towards becoming a globalised city. The study postulates the theory that the current urban official housing developmental strategy is inappropriate due to a lack of stakeholder participation and it mostly benefits a few key groups within Egyptian and Cairene society.

On that basis, the thesis seeks to answer the following research questions (see Chapter 3):

1. How do housing policies regulate housing mechanisms in Cairo?
2. Why do most Cairenes reside in informal areas?
3. How do new cities perform in terms of mitigating the housing crisis in Cairo?
4. What are the differences between housing policies and reality?
5. What recommendations could be formulated to promote effective implementation of housing policies in practice?

1.4. Analytical framework

This research focuses on understanding Cairo's housing ownership mechanisms (top down and bottom up) with the aim of attaining sustainable urban development by analysing the opportunities and constraints of involving housing stakeholders which, in turn, will promote effective implementation of housing policies in practice. In other words, this thesis investigates the different variables and forces that shape the built environment in Cairo, taking into account three main theories – Marxist, institutional, and neo-classical. These theories helped me understand the three types of housing selected for this study (governmental, informal, gated communities).

The Marxist view considers housing as commodity with an emphasis on class division, power, and ideology. This helped me understand that, over time, state ideologies have always shaped housing mechanisms, producing housing schemes which promoted the state's agenda of that time. This was clearly evident in the governmental housing programmes. The institutional view perceives housing as a (use-value) product, looking at what it does rather than what it is. Through this lens, I was able to appreciate informal housing as shelter

for those who reside there as oppose to slums from an outsider's view. The neo-classical view describes housing as part of socio-economic process where people's preferences influence housing production process. This was a clear link to gated communities, where housing was perceived more than a mere shelter in search for self-actualisation according to Maslow's hierarchy of needs. An important note to be taken into account is the fact that these theories have been interlinked and combined for the purposes of this research in order to provide a more flexible and holistic view of housing ownership in Cairo (see section 2.6).

The study focuses mainly on understanding housing ownership mechanisms, urban policy and building regulations in Cairo by analysing the key forces which involve considerations from varied historical periods, socio-cultural realms, politico-economic systems of that shaped Cairo's built environment. To undertake a systematic analysis of the aim and its relevant objectives, an analytical framework has been developed consisting of literature review, a historical account from 640 to 1952, housing policies after 1952, housing management, and housing production.

The literature reviewed has helped me understand the complexity of housing in Cairo while taking into account the relevant theories in relation to housing. Once I examined the current literature, I had to undertake a historical account to scrutinise the circumstances that shaped the city until 1952. After the revolution (1952), housing policies have become more prominent in the way the built environment was developed. Thus, I researched the housing policies to illustrate their impact on housing ownership mechanisms in Cairo. Once the policies had been analysed, it was imperative to appraise the efficiency of the housing management structures in formulating, planning, and implementing the policies. With the intention of understanding housing production or how people obtain housing ownership, three housing types in Cairo have been selected for the case studies – informal, governmental housing programmes and gated communities.

The methodology was designed to enable me to study Cairo's housing policies in order to offer practical recommendations to create an efficient, resilient and fair housing system in view of sustainability in urban development. The interpretive paradigm was used to create the framework for the study. Various means of data collection have been utilised – official statistical information, documents, non-participant observations, specific questionnaires administered in the identified sample localities (informal, gated communities, and governmental housing programmes in Cairo), and in-depth key informant interviews with locals, professionals, experts, and academics. The justification for adopting this methodical approach was to combine perceptions with decisions, thus drafting appropriate proposals to match the city's existing socio-economic, urban, and environmental setting.

The study proposes critical recommendations for achieving better housing ownership within the urban context of Cairo, supported by the participation of stakeholders. This is illustrated in the form of a journey to sustainability, where sustainability ought to be seen as a set of steps or components (e.g. housing, transport, infrastructure) that need to be analysed and understood at an independent level in order to reach the ultimate goal – sustainable urban development. Once these independent sectoral analyses are brought together and integrated holistically by the policy-makers, it could reach the ultimate goal of sustainability. On a global level, the emphasis on sustainable urban development is outlined in the New Urban Agenda and SDG 11, in which building sustainable cities and communities represents the means to address education, health, employment opportunities, poverty reduction, and crime reduction. Housing is also seen as a key factor that fosters resilience and energy consumption and contributes to economic growth. Thus, housing is meant to be a high priority that aims to promote sound urban policies and urban development practices (UN, 2016a; UN-Habitat, 2016a; b). The research offers recommendations in the concluding chapter aiming to help mitigate the housing ownership issues, thus having a direct impact on the process of promoting sustainability. Once all components have been

scrutinised and their specific issues mitigated, we can then fit all the pieces together, and walk the steps that lead us to a sustainable development in Cairo.

1.5. Thesis structure

The rest of the thesis is divided into nine chapters and five appendices. The logical sequence of the thesis' structure is based on key nodes – reviewing the relevant literature which led to identifying the gaps in literature and developing the methodology. The pathway to understanding Cairo's housing ownership mechanisms led to adoption of top-down and bottom-up approaches. The top-down approach aims to examine the housing organisation hierarchy, the housing policies and programmes, and the roles of the stakeholders. The bottom-up approach aims to scrutinise how housing ownership system works at the micro-level, in three different housing types – informal areas, governmental housing units and gated communities. An in-depth analysis was undertaken in the case studies with the aim of identifying the main forces that shape the built environment. The study concludes with a discussion on the findings and provides recommendations in order to achieve a holistic understanding of the housing in Egypt.

Chapter 2, 'The meaning of shelter', reviews the relevant literature. It takes into account various housing definitions, the concepts of housing ('adequate housing', 'housing: verb versus noun', 'use of value versus market value'), aspects of housing ('socio-cultural', 'economic', 'political', 'environmental'), the housing components ('forms', 'resources', 'institutions'), concepts of housing policies, a discussion on housing theory, and the key housing issues ('urbanisation', and 'qualitative versus quantitative problems').

Chapter 3, 'Methodology', considers the methodology and the methods used in the research. The 'Methodology' chapter describes and presents the research questions, the study's ontology (constructivism), epistemology (interpretivism), and methodology

(case study) paradigms, describes the research design, methods (structured questionnaire, semi-structured interviews, and non-participant observation) and sampling, explains the process of data analysis and coding, considers the validity and reliability, and the research's ethical considerations and limitations. It is complemented by 'Appendix A – Methodology attachments' which contains the cover letter (and consent) to participants, the questionnaire (English and Arabic version), the interviewees list (using pseudonyms), and the semi-structured interview questions (English and Arabic versions).

Chapter 4 and Appendix B on the 'Historical urban evolution of Cairo' scrutinise the historical periods in the evolution of present-day Cairo. The scrutiny of Cairo's historical development represents a useful tool for understanding how changes in political ideology and planning principles affect the city's built environment. Chapter 5 is the 'The codes of shelter', which examines Egyptian housing policies with a focus on the policies for the low-income groups during the 20th century until present and their impact on the housing issues in Cairo. It covers the top-down approach represented by the governmental point of view.

Chapter 6 - 'The administration of shelter', explores the system of housing management in Cairo from a top-down perspective – housing institutions, stakeholders, governance, urban management and planning tools such as master plans, building regulations, land policies, and mortgage as a financial support in securing housing. This chapter is augmented by 'Appendix C', which provides a technical analysis of the structure of the governmental housing institutions and a review of the housing stakeholders.

Chapter 7 - 'The practices of informal shelter', investigates informal modes of housing production from a bottom-up perspective by examining two case studies of Cairo's informal housing. Chapter 8 - 'The practices of formal shelter' examines formal modes of housing production from a bottom-up approach by investigating four case studies in Cairo's governmental housing programmes and gated

communities. An in-depth analysis of the fundamental factors of housing (demographic, housing stock, household incomes, poverty and wealth housing), and Cairo's housing characteristics are included in 'Appendix D'. These different case studies are used as examples to collect relevant data in order to gain a better understanding of the housing mechanism in Greater Cairo. These case studies reflect the housing dynamics on macro and micro levels and provide a holistic perspective about the housing mechanisms in Cairo. The research had made use of the case-study approach to collect primary data through semi-structured interviews, questionnaires, and field observations. It is written in conjunction with 'Appendix E', in which data are summarised and presented.

Chapter 9 - 'Discussion and recommendations', revisits the research findings with the intention of providing some suppositions in relation to the theoretical and physical context set out in the introduction chapter. It provides some suggestions for the housing policy makers with a particular focus on low-income housing ownership provision. It answers the research questions and offers recommendations to narrow the gap between policy and reality with the aim of promoting urban sustainability.

An important point to be raised is the high number of figures and illustrations across the thesis. As stated throughout the study, housing is a complex system and housing in Cairo is particularly complex, bringing together climate, cultural, socio-economic and political intricacies. Thus, I have been guided by the cliché, a picture worth a thousand words, in trying to convey my message to the reader – that Egypt has a character of constant change and despite of its character, there is no well-established archive to record these changes, thus this research could be used as a reference base, to some extent, in the future. Moreover, this study covers a long period of time and connects different fields in aiming to portray a holistic picture of housing in Cairo.

Chapter 2: The meaning of shelter

2.1. Introduction

"Great Nations write their autobiographies in three manuscripts, the book of their deed, the book of their words, and the book of their art. Not one of these books can be understood unless we read the other two, but of the three the only trustworthy one is the last" (Ruskin, 1877, piii). To me the last is art and architecture.

"Capital does not want to abolish the housing shortage even if it could, this has now been finally established." (Engels, 1872, p59)

This chapter constitutes a review of the relevant housing literature. It takes into account various housing definitions (house, home, slum, gated community), the concepts of housing ('adequate housing', 'verb versus noun', 'use of value versus market value'), aspects of housing ('socio-cultural', 'economic', 'political', 'environmental'), the housing components ('forms', 'resources', 'institutions'), the concept of housing policy, a discussion on housing theory, and the key housing issues ('urbanisation', and 'qualitative versus quantitative problems').

Housing represents the foundation of everyday life, without which it becomes extremely challenging or even impossible to carry out. There is a high correlation between housing and improved quality of life and health. An adequate place for a family to live turns out to be the core for self-worth and the trigger for improvement. A well-serviced house allows people to benefit from better health, education facilities, and employment opportunities - the ways to improve quality of life and move forward in the society (Bratt, 2002; Afify, 2005; Arias, 1993; Beall, 1997; Rouse *et al*., 1988). The house is usually the biggest investment a person makes during his/her entire life. It is one of our basic needs, protecting us from the weather, keeping us safe, and allowing us to satisfy our other needs. According to Maslow's 'Hierarchy of needs', shelter is one of the physiological needs, thus seen as a human right (Maslow, 1943; Maliene and Malys, 2009).

Homes have always been one of the greatest human endeavours to cope with nature. Throughout history, philosophers have associated

the process of building a shelter with the state of being in the world (Norberg-Schults, 1971; 1993). From Nietzsche to Martin Heidegger and Hannah Arendt, building and inhabiting space is a form of negotiation with nature. This alteration in nature causes a change in form, spatial configuration and social processes (Abdelmonem, 2012; 2016).

To understand housing, it is essential to use a multidisciplinary approach in defining it, in order to integrate cultural, social, economic, and political aspects (Sherif *et al*., 2007). The section below defines housing from various disciplinary perspectives.

2.2. Definition

What meaning does the concept of 'home' hold for people? An extensive literature reviewing the person-environment relationships has endeavoured to answer this question. The meaning of home has mainly been explored in relation to housing, and on a larger scale, as geographical region, neighbourhood, or country (Despres, 1991; Sopher, 1979). The notion of 'home' claims different meanings within different contexts. Its general sense comes from the physical boundaries of space (dwelling, house), place (neighbourhood, city); and environmental conditions, along with socio-cultural determinant (Mallett, 2004; Abdelmonem, 2016).

Linguistically, 'home' developed from 'oikos' – the basic unit of ancient Greek society, to the Roman 'domus' with its two structural divisions by gender (private/public) and quality (grand/humble) (Nevett, 2001; Gazda and Haeck, 2010). In English, 'home' originates from the Anglo-Saxon word 'ham', meaning village (Hollander, 1991), that is very similar in many Germanic languages too (e.g. 'heim' in German and 'hem' in Swedish). In the 10th century the term 'home' started to be used in the in a manner more similar to the contemporary form, namely a household (Abdelmonem, 2016). In Arabic and Hebrew, 'home' is (Elbyt/ Bayit) and signifies the safety during night, thus a concept

connected to people's need for security (Abdelmonem, 2012). It is worth noting that in Arabic, the terms 'home' and 'house' are almost identical, and are thus used interchangeably according to the context it is being used in.

The contemporary literature on residential architecture refers to three basic terminologies: house, home and household. House is described as a family's residence area with its definite spatial environment, with its own property and land rights, and diverse architectural styles and designs. A home is defined within the specific cultural context within which it is built and inhabited (Abdelmonem, 2016; Maliene and Malys, 2009; Abdulai, 2006; Cole and Grossman, 2002). Accordingly, Blanton (1994, p5) describes 'household' as "*a group of people co-residing in a dwelling or residential compound and who, to some degree, share house-holding activities and decision-making*".

Although the terminology would make one believe that 'house' is the same as 'home', there is a fundamental difference in terms of meaning. Housing is seen as a physical private space by most designers (Sherif et al., 2007). The United Nations Statistics Division (2016, para 2a) defines housing thus:

> *"A building is any independent free-standing structure comprising one or more rooms or other spaces, covered by a roof and usually enclosed within external walls or dividing walls that extend from the foundations to the roof. However, in tropical areas, a building may consist of a roof with supports only, that is to say, without constructed walls; in some cases, a roofless structure consisting of a space enclosed by walls may be considered a building*."

Caminos and Goethert (1978) define the word 'house' as "*a multiple space...contained in a building/ shelter having the private use of the parcel of land on which it is built as well as the facilities available*" (cited in Tipple *et al*., 1994, p432). Tipple *et al.* (1994) add to that definition the idea that the house can also be defined as the unit of

accommodation occupied by a single household. This, according to the Egyptian tradition, especially in informal areas, could include the extended family. The Central Agency for Public Mobilisation and Statistics (CAPMAS) (2008, pY) defines the housing unit as "*a place originally intended for living consisting of a room (or more) in addition to service areas (kitchen and bath) having its own door*" (translated from Arabic). In short, the term 'house' refers to the physical private form of shelter.

In time, the term 'home' has transcended the mere physical form, being widely perceived as a lasting emotional memory reference. Rooted in the physical space, homes are socially constructed through different forms, uses and meanings. Although built to accommodate private life, homes have been constructed according to patterns of living which have later become rituals then social-cultural activities, and they have to be considered as part of the community. Homes are spatial and social systems, having at the centre family social life (Blackmar, 1991; Abdelmonem, 2011; 2016). In the Oxford English Dictionary (2016) 'home' is defined as: "*A dwelling - place, house, abode; the fixed residence of a family or household; the seat of domestic life and interests; the dwelling in which one habitually lives, or which one regards as one's proper abode. Sometimes including the members of a family collectively; the home-circle or household*".

A house is not necessarily a home, and the existing relations of a household do not automatically signify those of a home. To address the confusing semantics of home, three cross-cutting elements were developed: home as material and imaginative; the connection between home, power and identity; and home as multi-scalar. The first element – the material and imaginative – sees home not only as a physical place in which people dwell but also as an imaginative place of belonging. The second – home, power and identity – depicts home as a place in which people are positioned differently, according to age, gender, sexuality, ethnicity and class. The third – multi-scalar – perceives home as comprising layered geographical contexts in which

a person attaches oneself to a particular country, city, neighbourhood, street, and house. Thus, home should be seen as a 'spatial imaginary' represented by the relationship between people's emotions, belonging, and house; and a political context in which people negotiate and contest to secure a shelter (Blunt and Dowling 2006; Brickell, 2012a; 2012b).

A home cannot be described from a single perspective; in addition to being a highly valuable possession, it is also of personal, cultural, and socio-economic significance. Moreover, the mode of housing production and exchange influences the wider development goals, like environmental sustainability and the mitigation of natural disasters, equity and poverty eradication, and culture and religious beliefs. Furthermore, housing construction plays an important role for the unskilled employment generation, particularly in the Egyptian economy, and most developing countries (Lux, 2003; Afify, 2005).

Homes are life's anchors – whether temporary or permanent, situated in a particular location or transportable, rented or owned, located in formal or informal areas. Their usage and meaning to the people who inhabit them, and housing demand, are perhaps the key housing policy themes in any part of the world (Arias, 1993). In western perception, a home is mostly a robust building that withstands the natural elements, with an address on the post office register, consisting of a kitchen, a bathroom, bedrooms and a lounge. In eastern and African contexts, a home can be a sidewalk, a small shed built illegally on public or private land, it can be crowded dwelling where rents are paid to proprietors, or it can be a wealthy property in leafy suburbs (Pugh, 1990). This concept of 'home' can also be applied to the Egyptian context.

Home blends memory and (be-)longing, the ideals, the emotional and the material, the temporal and spatial, and the local and global (Saunders, 1989; Rapport and Dawson, 1998). The concept of 'home' holds complex meanings, interrelated and at times opposing socio-cultural ideas about people's relationship with places (Mallett, 2004).

As a result, there is no distinct ‘authenticity’ of a place or home (Massey, 1992; 1994).

The urban housing studied in this research comprises of two typologies (formal and informal) within Greater Cairo. This excludes housing used as business sites, offices and other functions unrelated to the concept of ‘home’. The key definitions here are ‘slums’ and ‘gated communities’. Slums are “*neglected parts of cities where housing and living conditions are appallingly poor. Slums range from high-density, squalid central city tenements to spontaneous squatter settlements without legal recognition or rights, sprawling at the edge of cities*” (The Cities Alliance, 1999 cited in Kinyanjui *et al*., 2010, p13). In 2010, UN-Habitat (2010) defined a slum household to be a household that is deprived of one or more of the following: secure tenure, durable housing structure, water and sanitation; and adequate living area (>3 persons/room) (Figure 2.1) (Kinyanjui *et al*., 2010). The term ‘slum/informal area’ is equivalent to the Arabic term ‘ashwaiyyat’ (disordered/random) in Egypt, and refers to deteriorated or unserviced urban areas (Personal interview with O5).

Figure 2.1: Slum indicators and thresholds

Characteristic	Indicator	Definition
Access to water	Improved drinking water sources	A household has improved drinking water supply if it uses water from sources that include: Piped water, public tap, well, protected spring; rain water collection
Access to improved sanitation facilities	Improved sanitation facilities	A household is considered to have access to improved sanitation if it uses flush-piped sewer system, septic tank, Composting toilet.
Durable housing	Location	A house is considered durable if it is built on a non-hazardous location.
	Permanency of structure	Permanency of a housing structure is determined by quality of construction and compliance with local building codes, standards and by laws.
Overcrowding	Sufficient living area	A house has sufficient living area for household members if not more than three members share the same room.
Security of tenure	Security tenure	Households have secure tenure when they have effective protection against forced evictions (e.g. formal title).

Based on Kinyanjui et al., 2010

Initially, the term ‘slum’ was used in the 1820s, to define the poorest housing quality and the least hygienic conditions (Lemma, 2005;

Kinyanjui *et al*., 2010). In 1976, UN-Habitat used the word ‘slums’ to label a wide range of low-income settlements and/or poor human living conditions” in the ‘Cities without Slums’ programme. Subsequently, programmatic objectives and targets (e.g. Agenda 21, Millennium Development Goals, Sustainable Development Goals) like the right to housing, and promoting sustainable human settlement development have been developed (Linn, 1983; Beall, 1997; Rakodi, 1997b; Fernandes and Varley, 1998; Murray and Myers, 2006; Gandy, 2006; Simon, 2016a).

The UN has used the word ‘slum’ with the aim of publicising the urgency of urban problems in order to attract funding. The word poses the threat of associating people’s characteristics with the poor-quality housing. This is because the term slum does not only refer to poor spatial environment, but inevitably to the social life of the residents. Thus, the ‘social component’ of the term slum can promote prejudice towards the slum dwellers, and should be used clearly and carefully (Gilbert, 2007; Nuissl and Heinrichs, 2013). Slums are intricate and contradictory places, with a wide variety of people, especially in terms of their livelihoods (Simon, 2011). The term slum is used across this study to reflect its equivalent word in Arabic - ‘ashwaiyyat’ as commonly used in Egyptian official and media reports, and society at large. Moreover, I am using the term ‘slum’ as the translation of ‘ashwaiyyat’ to raise the awareness of its negative connotation in Arabic (Egyptian dialect).

Although various attempts have been made to define gated communities, a general definition is “*walled or fenced by boundary, and their public access is restricted, often guarded using CCTV or security personal*” (Atkinson and Blandy, 2005, p177). It makes reference to a spatial fortification of a social organisation of people (Hook and Vrdoljak, 2002). According to Foucault (1997), gated enclaves refer to the concept of ‘*heterotopia*’ which assumes a structure of opening and closing in regards to how open or closed to public accessibility a place is. Heterotopia has been defined as a real

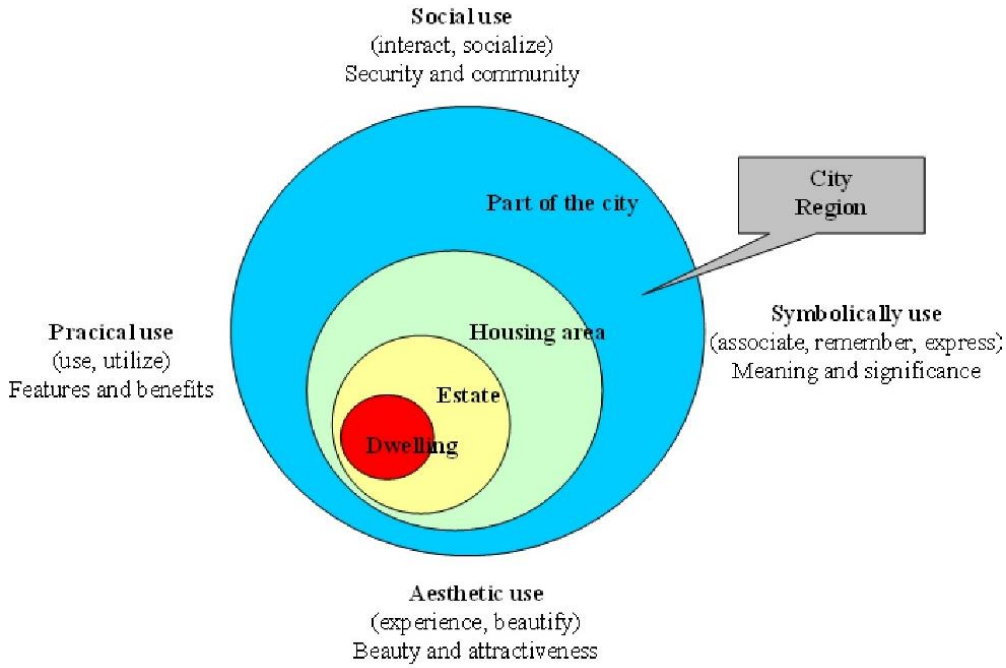
site in which utopia is effectively enacted (ibid). These types of real estate development have become a trend in housing, retail, and industrial development. The Egyptian classification of these two housing types in Cairo is discussed in details in Chapters 7 and 8.

This study argues that both terms – ‘house’ and ‘home’ – are needed in order to discuss the physical form of shelter and its broader meaning. Thus, when the term ‘house’ is used it mostly refers to the design, structure, and materials needed to provide an adequate shelter for people. When ‘home’ is used, it generally refers to its socio-cultural element, economic, political, and historical aspects in relation to its physical built environment.

2.3. Concepts of housing

A house has different characteristics, such as physical through its material structure, a necessary good through its consumption and commodity significance, and aesthetic characteristic through its surroundings. Home is an intricate system that affects many parts of private and public life. It generally represents the safe space – the shelter, the social location where life unfolds, with its emotional and memorable moments. It reflects people's ideas about themselves and how they want to be perceived by others. Beside the psychological comfort that the home provides from outside pressures, a home can also be a centre of work. (Rakoff, 1977; Hayward, 1977; Sixsmith, 1986; Sebba and Churchman, 1986; Despres, 1991; Csikszentmihalyi and Rochberg-Halton, 1999; Mallet, 2004; Wigren and Wilhelmsson, 2007; Bergenstrahle, 2015). The following sections attempt to analyse briefly some of the key housing characteristics (Figure 2.2).

Figure 2.2: Housing values



Based on Bergenstrahle, 2015, p3

2.3.1. The right to adequate housing

The United Nations' 'Universal Declaration of Human Rights', stated that "*everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services*" (UN, 1948, Article 25); and the "*right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to continuous improvement of living conditions*" (United Nations, 1966, Article 11). Various international human rights treaties such as the 1948 Universal Declaration of Human Rights, the 1965 International Convention on the Elimination of All Forms of Racial Discrimination, the 1966 International Covenant on Economic, Social and Cultural Rights, and the 2006 Convention on the Rights of Persons with Disabilities, recognise people's right to adequate housing (UN-Habitat, 2014b). These international human rights treaties have also been complemented by the numerous statements and action plans, like the Vancouver Declaration on Human Settlements (1976), Agenda 21 (1992), the Habitat Agenda

(1996a), Istanbul Declaration on Human Settlements (1996), the Millennium Declaration and Millennium Development Goals – Goal 7 (2000).

The right to adequate housing is also supported by the Sustainable Development Goal (SDG) Targets and Indicators of Goal 11, "*Make Cities and Human Settlements inclusive, safe, resilient and sustainable"*, Target 11.1: "*By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums*" and Indicator 11.1: "*Proportion of urban population living in slums, informal settlements or inadequate housing*" (Rudd *et al*., 2015, p2). At the regional level of Africa, the right to adequate housing is recognised through the 1990 African Charter on the Rights and Welfare of the Child, while at national level of Egypt, the right to adequate housing first referenced in the 2012 Constitution, in Article 68: "*The right to adequate housing, clean water and healthy food are guaranteed rights. The state adopts a national housing plan based on social justice that encourages self-initiatives and housing cooperatives, and regulates the use of state land for the purposes of urbanism in the public interest, and preserves the rights of generations*" (translated from Arabic).

This has recently been amended in the 2014 Egyptian Constitution, being now emphasised in Article 59:

> "*The state guarantees citizens' rights to adequate housing, clean water, food and health, and is committed to the adoption of a national housing plan based on social justice that encourages self-initiatives and cooperative housing, and regulates the use of state land for the purposes of urbanism, in the public interest, and maintains rights of generations."* (translated from Arabic).

Shelter is people's basic need and right anywhere in the world, but adequate housing represents more than just a shelter. The right to adequate housing refers to safe and private space, benefitting from

physical accessibility, structural stability and durability, satisfactory infrastructure, optimal health-related factors and environmental quality, which leads to higher-order human needs of peace and self-worth, all offered at an affordable price. Adequacy should be established together with all housing stakeholders through active participation, allowing for cultural identity based on equal and non-discriminatory basis (Figure 2.3) (World Bank, 1980; UN-CESCR, 1991; Arias, 1993; Elgabalawi, 2010, UN-Habitat, 1996c; 2014c). The UN-Habitat (2002) has a provision stating that lack of funding does not represent a reason why the right to housing should not be met.

Figure 2.3: Adequate housing components

Adequate housing						
Security of tenure	Habitability	Accessibility	Affordability	Availability of services, materialis, and infrastructure	Location	Cultural adequacy

Based on UN-CESCR, 1991; 1997 cited in UN-Habitat, 2014b

To determine an adequate definition of housing rights (UN-Habitat, 2014b; Leckie, 1989), many of the contrasted elements of housing rights need to be addressed, such as private versus public ownership of property, owned versus rented housing, private-built versus state-built housing; total/partial or no state intervention in housing distribution, subsidized versus market-priced housing. The fact that all governments are struggling to meet the international housing rights agreements, the emphasis on housing rights is kept to the minimum due to the potential criticism these rights attract if unmet (UN, 1988; Leckie, 1989; UN-Habitat, 2014b). This claim has been clearly stated in various sources, including the United Nations: "*No nation can claim to have reached the objective of adequate shelter for all citizens, and, therefore, no nation can claim to possess the recipe for reaching this objective worldwide.*" (UN, 1988, para B). Although access to land constitutes a basic component of fulfilling the right to adequate housing, currently the universal human rights declaration does not identify an individual right to land (UN-Habitat, 2014b).

Despite the key importance of the right to housing within the global legal system, more than a billion people are living in inadequate housing, millions of whom live in health- (or worse so, life-) threatening conditions or in overcrowded slums (Mekheimar and Shehayeb, 2000). Based on CAPMAS (2006), over 1.3 million families live in overcrowded dwellings, and 9 million families live in housing not connected to sanitary systems in Egypt (Shawkat *et al*., 2013). Moreover, at least two million people globally are evicted from their homes every year without reasonable notice, or are threatened with forced eviction (UN-Habitat, 2007). In Cairo, Shawkat *et al*. (2013) state that over 15,000 families have been evicted and relocated outside of Cairo between 1993 and 2014 (cited in Afify, 2014).

According to projections by the United Nations, 90% of urbanisation between now and 2050 will occur in developing countries, where the total urban population is estimated to grow by 70 million per year. Additionally, outdated building regulations, funding deficiency, unaffordable land prices and unstable property taxes impede development. The lack of access to land and housing forces the world's poorest people to live on inadequate land such as flood plains, hillsides, along railways, waste dumps and in overcrowded slums (Katz *et al*., 2012; UN-Habitat, 2014b; UN-DESA, 2014).

2.3.2. Housing: Verb vs Noun

> *"In English the word 'housing' can be used as a noun or as a verb. The verb 'to house' describes a process or activity of housing. While the idea of housing as a collective noun is obviously associated with housing activities. The word does not generally indicate this fact. On the other hand, the activity of housing is too difficult to conceive without including the house promoted, built or used"* (Turner, 1972, p151).

From Turner's viewpoint, housing is a continuous process which involves different stakeholders. Housing occupies most urban land and plays a significant role in the urban economy (Turner, 1980b). This

also applies to informal settlements as they are constantly changing to the surrounding challenges (Huchzermeyer, 2008; Soliman, 2012a).

When housing is seen as a good that serves the interests of political or commercial manipulators, the focus is shifted away from the processes by which housing and districts are designed, constructed and sustained (Turner, 1980b). In the past, building homes was an individual or community everyday activity, however since seen as an industry it has become an issue only solved by specialists (architects, planners, sociologists and economists) making it even more difficult for the poor. The old act of creating a shelter has evolved into a complicated development question (Turner, 1979). Turner's view of housing as a verb has supported the idea that slums should be targeted for upgrade, which was unsuccessfully adopted in 1970s in a self-help housing programme supported by the World Bank and UN-Habitat (World Bank, 1972; 1973; 1993; Burgess, 1979; Schuman, 1986; Nientied and van der Linden, 1988; Marcus, 1992; Mathey, 1997; Keivani and Werna, 2001a; Harris, 2003b) (see Chapter 5).

In the 1950s (and still currently in Egypt), target-oriented governments were providing people with completed housing schemes. These schemes were often unpopular because the government failed to incorporate the evolutionary nature of housing within the offered schemes. To supplant these limitations, people in developing countries build their homes fitting their needs, and less following the architects, planners, and government agencies' directives (Turner, 1979; Yeboah, 2005; Soliman, 2012a). This highlights even more the importance of the local community participation in formulating housing policies.

2.3.3. Use value vs Market value

In the 1970s and early 1980s there was a noteworthy housing debate between positivist, institutional and Marxist views (Soliman, 2012a). The Marxist view saw housing as a commodity shifting from use value to market (exchange) value and conversely (Burgess, 1982), the

institutional view perceived it as a product and looked at low-income housing regarding the use value alone, and placed the importance on ‘what it does’ rather than ‘what it is’. The Positive view understood housing as a part of the socioeconomic process (Peattie, 1979; 1983; Turner, 1968; 1972; 1991).

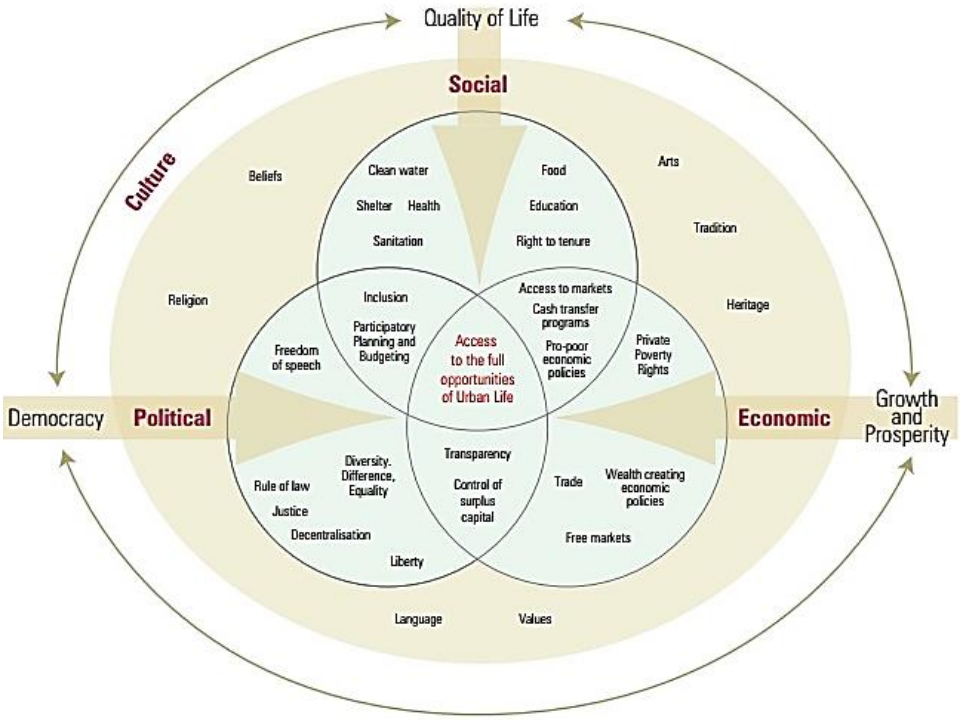
Judging from the institutional point of view, the meaning of housing is found in what it does for everyone involved. Materially speaking, housing does not matter for what it is but for its relation to people. The market value it is not an effective measure as everyone's situation varies and changes over time, and besides the physical aspects of housing, personal and social aspects need consideration too. Moreover, the constrained views of public or private developers, concerned only with immediate results, have yet to achieve socio-economic viable housing policies (Turner, 1976; 1979; 1980; 1991). From a Marxist point of view, housing is seen as a commodity that incorporates a specific labour timeframe and commercially-supplied products (e.g. wood, bricks, cement, steel, etc.), and is evaluated by the market for purchase or letting, and this includes the change of the self-help dwelling into the commodity form. Turner also considers that housing has an interchangeable feature – what can be of use-value for someone can also be of exchange-value for someone else (He *et al*., 2015).

The idea of housing as a commodity ought to be understood differently from any other commodity, taking into consideration its necessity, cost, spatial fixity, durability, diversity, alongside the socio-cultural consideration of its neighbourhood (Arias, 1993; Arnott, 2015). The value of housing has also been judged to come from the building itself, community, and its accessibility to jobs and services. As a result, the economics of housing are significantly different from those of other commodities (Wilkinson, 1973; Richardson *et al*., 1974; Pugh, 1986). Moreover, within the information era, housing is used as a market value which depends upon socio-economic and political progress at local, national, and global level (Pugh, 1986; Soliman, 2012b).

2.4. Aspects of housing

In analysing housing, numerous aspects have been applied globally. These can contribute to explain the case of Cairo by making use of the most appropriate theory. Out of these aspects, the one that has prevailed is the 'economic determinism'. Amongst other aspects, there have been socio-cultural, ecologic and environment, welfare, and politic-economy aspects (Figure 2.4).

Figure 2.4: Aspects of urban life



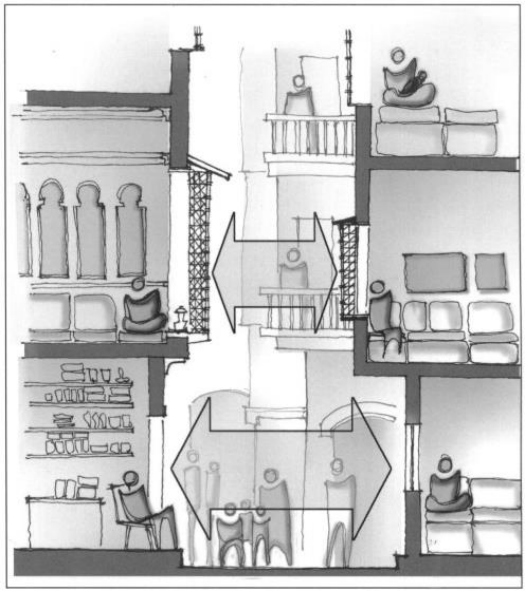
Based on UN-Habitat, 2010a

2.4.1. Socio-culture aspects

Belsey (2002, p113) claims that culture is "*the inscription in stories, rituals, customs, objects, and practices of the meanings in circulation at a specific time and place*". It takes account of the cultural production (e.g. arts and architecture) and the structures which confirms it, and the daily actions of individuals and groups in a society (Abdelmonem, 2012). This is illustrated in Figure 2.5 which shows that although there is social interaction on the ground-floor as a result of mixed land-use (e.g. commercial, artisan, it still promotes home privacy on the top

floors. Culture also exists in the representations of the world exchanged and questioned in a society. Thus, culture is dynamic, in a continuous state of change (Rotenberg and McDonogh, 1993; Said, 1994; 2003; Agnew *et al*., 2007; Miles, 2007). Moreover, culture comprises of all aesthetic practices relatively independent from the economic and political aspects, and represents a society's identity. The cultural aspect is assimilated into all elements of human experience, including the spatial dimension, yet because culture is connected with power, its meaning is often concealed by its more evident economic and political indicators.

Figure 2.5: Typical section of a Cairene alley

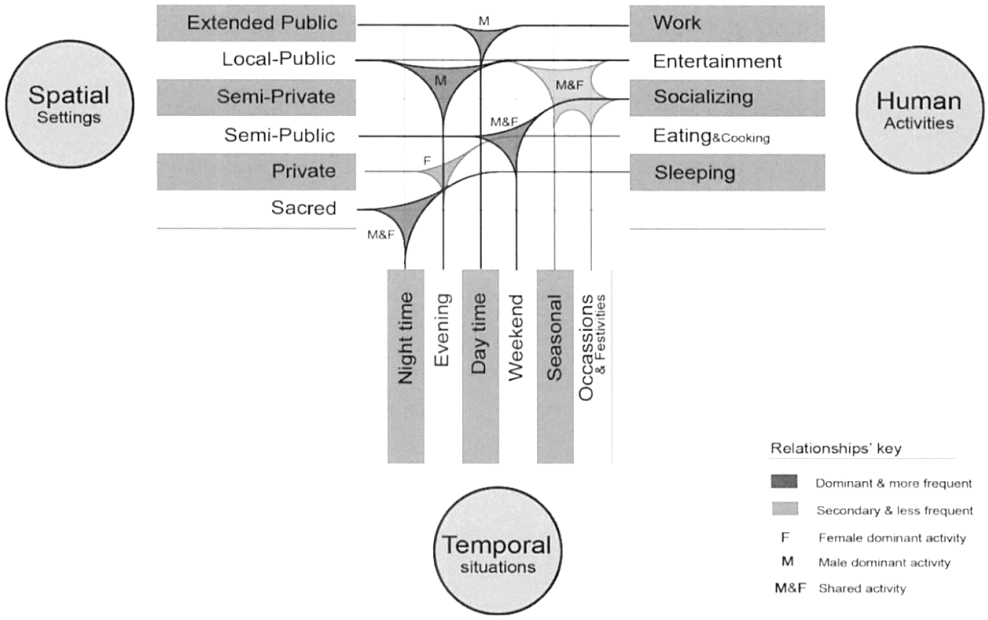


Based on Abdelmonem, 2012, p43

Kings (2007) claims that studying the cultural aspects implicit in the use of space and alteration of built environments has both theoretical and practical significance. Abdelmonem (2012) examines these cultural aspects in terms of spatial settings, human activities and temporal situations to help understand the structure of homes in Cairo (Figure 2.6). At the most basic level, all societies, regardless of their culture or location, share the same needs: food, shelter, safety, and socialisation. However, the way these needs are being provided for depends on the culture. It is widely accepted that housing has many meanings in accordance to the context within which it is identified and

it assimilates various domestic life elements, which at a later stage, become part of the housing policy in relation to what is an acceptable standard of housing. Housing comprises of "*cultural norms and individual fantasies*" (Rapport and Dawson, 1998, p8), and is perceived as a great influence in society. Housing insecurity affects considerably the labour market, as well as the political stability in a society. The right to housing constitutes the third section of human rights (after political and civil rights) and is a social right (Peattie, 1979; Lawrence, 1992; Turner, 2007; Lane 2007; Murphy, 2010; Lux, 2003; 2009).

Figure 2.6: Home practices in old Cairo



Based on Abdelmonem, 2012, p40

Housing is often described as the expression of principles and aspirations of a society, whose priorities are determined by the social factors (Rapoport, 1969; Tucker, 1994; Lane, 2007; Turner, 2007). The social and cultural factors represent people's values and attitudes towards the housing process and characteristics, and also housing mirrors people's traditions and social attitudes (Koth *et al*., 1965; Jagun, 1989). The relationship between social process and spatial form is temporally and geographically context-specific. The nature of the built environment is affected by the social organisation and cultural

values, and the changes in the politico-economic conditions, mode of production, and technological capacity (Simon, 1992). In the 'sociology of development' debate, cities are seen to generate economic development dependent on the rise of modernisation values which improve the ability of a society effectively cope with continuing change (Friedmann, 1968; Hoselitz, 1969; Qadeer, 1974; King, 2010; Brookfield, 2011).

In the 1950s our understanding of urbanism and the later housing policies emerged from theories derived from the Western industrial and post-industrial models. This, however, did not fit the cities in the non-Western world (Wheatley, 1967, Berry, 1973, Simon, 1992; 1997; Simone, 2004; Porter, 2010; King, 2010; Bayat, 2013). In developing countries, one of the factors that contributes to the failure of housing policy is disregarding the society's cultural housing values. Thus, suitable policy formulation and implementation are difficult to accomplish due to the inaccurate perception and definition of housing in specific societies. Consequently, urban residents build what for them is socio-culturally suitable and affordable, while governments refer to their housing as unplanned and illegal (Jagun, 1989; Fathy, 2000; Simon, 1992; Mitullah, 1993; Soliman, 2010; Bayat and Denis, 2000; Simone, 2004; Simone and Abouhani 2005).

If society's cultural housing values would be applied, appropriate policy formulation and implementation would be achieved. However, Giddens (1981b; 1985) claims that encompassing cultural values could prove as difficult as capturing the state interest within any context. King (2007) states that the fundamental problems are related to the nature of environments and how these interact with the social processes. Undeniably, the elements of local culture, religion and the relationship between land and shelter production are critical to people's existence, particularly in the African traditional economy context (Simon, 1992).

In the era of globalisation, the application of socio-cultural dimensions to housing has to account for the complex nature of the multicultural urban areas. In developing countries, with particular reference to the African context, where the informal housing specifications represent the adaptation to the different cultural and climatic backgrounds (UN-DESA, 1971; Simon, 1992; 1999; Porter, 2010), the architectural design has become mainly concerned with spatial and economic aspects of the house (Blundell, 1987; Kemeny, 1992; Oliver, 2007; Ahmed, 2012). In order to best provide for their communities' needs, architects, planners and policy-makers ought to make use of the society's value system and culture as opposed to trying to apply designs that do not suit the environment, climate, and culture (Fathy, 2000; Abdelmonem, 2016). To provide adequate housing, the professionals and authorities must consider the patterns of everyday living and the needs of the residents. Turner (1976) claims that the value of a house is established by how well it meets residents' needs.

It is crucial to harmoniously blend the 'intangible' social, cultural, and economic aspects with the 'tangible' forms of planning and architecture, Fathy (2000) claims, or housing planning could lead to culture deterioration. Moreover, the endurance of cultures depends on the form of housing able to preserve the cultural core (Rapoport, 1969; 1999). As Simon (1992) states, socio-cultural values, land and housing mechanisms, and technological capacity are visible in the overall urban layout (e.g. architectural styles and building materials, scale of buildings, etc.), formed the belief that housing design should be in accordance with the culture and social values of the residents.

2.4.2. Economic aspects

Economics has often been employed in the quest to answer most national development questions, thus being closely studied in relation to housing. Over the last few decades, housing has started to be the focus of many studies (Green *et al*., 2012). This has probably been the case due to the strong belief that the market is able to produce the

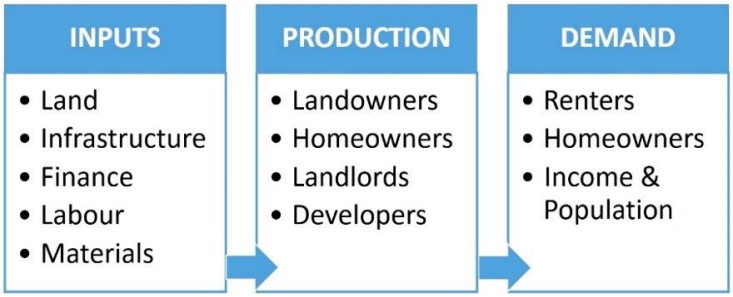
housing that people need (Mitullah, 1993). Thus, UN-Habitat and ILO (1995) aimed to improve the understanding of housing as economic development. Housing is an essential part of a country's economy and is exceptionally beneficial to economic development, particularly as a result of direct employment and as a source of income (Arias, 1993; De Soto, 2001; Arku and Harris, 2005; Hassan, 2011a; Heath, 2014).

Housing's economic benefits can be classified in two categories. The first category, mainstream economic, views housing as consumption, preserver of health and wellbeing, promoter of savings and investment, and indirect contributor to income and economic production. The second category refers to a wider economic view which consists of housing as a financial asset, rental income, shop, factory, and as an access point to the urban economy (Peattie, 1979; McCallum and Benjamin, 1985). For the poor in developing countries, housing is a workplace today as it was in the feudal town and preindustrial urban organisation. For these people, the place of work is also the place of living. This type of housing is determined by the environmental and practical conditions (Arku and Harris, 2005; Holliss, 2012; Abdelmonem, 2016) and acts as a key driver for sustainable development and poverty reduction in the society and economy.

One of the main housing issues in both developing and developed countries is affordability. Many people cannot afford adequate housing (Tipple, 1990 cited in Mitullah, 1993; Sims, 2012; Wakely, 2014). Scholars have suggested that for housing to be affordable, it should not cost more than 25% of the net income, as either rent or mortgage (Muth, 1969; Arnott, 2015). However, without sufficient long-term regular income, even the power of market forces turns out to be ineffective. This is an issue that most economies struggle with; although housing units exist on the market, they are not affordable, and because of rising inflation rates, the interest rates rise to unaffordable levels, thus the rents and mortgages are also increased. This is caused by the private developers and financiers, who set their priorities based on economic determinism, and the developing

countries struggle even more because they have to make profits over a very brief period of time due to political instability, which in turn has triggered increased interest rates (Figure 2.7). This 'vicious cycle' leads to rapid development of informal areas in developing countries (Mitullah, 1993; Arimah, 1997; Simone, 2001; Tostensen *et al*., 2001; Murray and Myers, 2006; UN-Habitat, 2014c).

Figure 2.7: Housing markets



Based on Malpezzi, 1999 and UN-Habitat, 2011b

The housing demand pressure is attributable to the urban growth rates and new household formation, accessible housing finance, and reasonable subsidies and taxation. Housing supply, instead, is influenced by production factors such as land, labour, materials, and infrastructure (Arimah, 1997). Both, housing demand and housing supply are affected by policies such as land allocation and management, the authorisation process, building codes, and different types of price control (Angel *et al*., 1993). To be efficiently developed, urban centres need a functioning housing sector, in which to offer adequate affordable housing, and sustainable patterns of urbanisation. The outcomes of well-established urban centres have a positive impact on the socio-economic conditions in terms of household savings, level of inflation, wages and production levels, investment, balance of payments and government budget deficit (Arias, 1993; Arimah, 1997). Furthermore, government interventions also affect the housing market, particularly where there are considerable economies of scale, market deficiencies, lack of information, and where individual households are unable to find

solutions to housing by themselves (Maclennan, 1982; Malpezzi, 1990; 1999; Ondiege, 1992; Harris, 2003a; Hassan, 2011b).

However, economists are not in agreement whether housing should be left entirely to market forces or whether government intervention is mandatory (Harms, 1972; Harris and Seldon, 1977; Keech *et al*., 2012). Free market promoters claim that the best approach is to leave housing to market forces, which in turn allows a shifting process, wealthier families moving to better housing, making space for the poorer households. This, however, is not an effective method since it works gradually and low-income families may not afford to buy the vacant housing units, and sometimes they move to worse-off housing (Harms, 1972; Stewart, 1979; Kemp, 1990).

Economic determinism can lead to serious housing problems, predominantly in developing countries, because it does not account for some of the fundamental traits of housing, that it is locational and cultural (Mitullah, 1993). Thus, most governments of the developing countries implement mixed policies, promoting public and private sector. Such countries, like Brazil, Pakistan, and India have used community associations or Non-Governmental Organisations (NGOs) to provide shelter and housing development credit. Following the World Bank 'Neo-liberalist' approach, these governments turn to the informal sector and private sector for housing provision (Pugh, 1990; Hassan, 2011b). This approach based on economic determinism has helped increasing the urban housing stock but has failed housing the urban poor. For example, Gulf countries have managed to provide good housing services for their own citizens due to their oil-based economies, where in Egypt public services are not being met because of scarce resources that only help to provide the basic socio-economic development. This implies that countries like Egypt have to go beyond economic determinism (World Bank, 1979; Soliman, 1986; Pugh, 1990; Buckley and Kalarickal, 2006).

2.4.3. Political aspects

Political attitudes have been claimed to have the greatest impact on housing supply, and as a result, there are robust collaborations between economics and policy (Barrat, 1984; Green *et al*., 2012). State power is split between different elements, for instance residents, workers, and government agencies, and it affects the economic substructure. Regional and urban planning becomes a question of regulating the interactions between the urban residents, developers, and the governmental bodies, thus the politicians and town planners hold the urban political power. In any society, the political arena is dominated by bureaucracies, particularly in terms of how the resources are allocated. Topics like housing and transport are considered from particular perspectives, especially in the sphere of political economy (Pugh, 1986). In rapidly growing cities, the questions about land use and allocation are vastly politicised and attract speculation (Turner, 1980b; Pugh, 1986; Payne, 1977; 1989; 2004; Gough and Yankson, 2000).

Moreover, institutional economists consider that valuation is a socio-political activity and institutional arrangements convey public policies (Myrdal, 1978; Gruchy, 1972). Governmental organisations restructure society by reallocating resources and revising market freedom. Without fair and democratic regulations, people's choices would be limited to either extreme market inequalities or totalitarianism. Housing policy is related to the wider political context, and people's socio-cultural aspects with regards to how institutions have developed over time. Housing resides in this context of political economy (Pugh, 1986). Pahl (1975) states that the political economy of bureaucracies explains the inequalities in the 'distribution of life's chances'. It is worth noting that there is a debate about the extent to which professional cadres, like urban planners, do hold active power as opposed to being mere mediators (Low, 2004; Altal, 2006; Adams and Tiesdell, 2013).

For policy makers, history has always offered valuable lessons, such as how current housing policies have been established through various governmental programmes. According to Hoffman (2012), political strategies that have proved successful in the past can shed light on ways to improve future policies. This study looks at past and present political strategies in an attempt to understand urban housing mechanism in Cairo, considering that they reflect the relationship between politics and economics, and takes into account other aspects, for instance, social structure and social relations.

2.4.4. Environmental aspects

One of the major global concerns is achieving sustainable development. The fundamental idea is formulated in the 'Our Common Future' report produced by Brundtland Commission for the United Nations. The report defined sustainable development as development that meets "*the needs of the present generation without compromising the ability of the future generations to meet their own needs*" (WCED, 1987, p8). This report also recognised that environment and development are closely linked, environment being the place where we live, and development being the actions we take to improve our place. Although widely understood that the natural and built environments have a great impact on the quality of life (Hinrichsen, 1992; Aribigbola, 2011), the concept is more difficult to put into practice.

In development studies (e.g. sustainable housing, sustainable cities), the term 'sustainability' has been frequently misused. For example, in housing, sustainable development has been mostly related to housing units, when it also represents its inhabitants. Environmental factors have a great impact on housing locations, construction time, technical requirements and the range of resources used, as well as on spatial organisation (Westendorff, 2004; UN-Habitat, 2006; Choguill, 2008; Abu Bakar *et al*., 2010; Hegazy and Moustafa, 2013; Simon, 2016a). Sustainable development theory was originally conceived as a

concept most applicable to macro-economic development. Only recently, has it been considered in relation to the quality of housing development (IUCNNR, 1980; Choguill, 1999; 2007).

Some of the key issues in urban sustainable development are with reference to building housing at a reasonable density, integrating disadvantaged groups within the society, avoiding segregation, reducing local and global waste (e.g. energy and water), minimizing demolitions, using renewable and replenishable resources, reusing buildings and infrastructure, and upgrading slums. Moreover, urban sustainable development has facilitated the analysis of housing finance strategy, aiming to evaluate the efficiency of existing governmental funding policy with the intention of providing financial support to the most disadvantaged groups. It has also aimed to encourage other stakeholders to provide housing finance to urban poor (Hardoy *et al*., 1995; Foy and Daly, 1992; Rees, 1996; Tostensen *et al*., 2001; Grifa, 2006; Hassan, 2011b; Sticzay and Koch, 2015). Sustainable urban development incorporates the idea that development should not degrade the quality of the environment, or reduce its productivity in the long term; it also advocates for health control, clean water and shelter for all, food self-sufficiency, and adequate technologies (Tolba, 1987). This can also be applied to housing. For housing initiatives to be sustainable, they must be environmentally compatible, economically viable, socially acceptable, and technically feasible (Choguill, 1999; 2007).

Throughout time, cultural influences, social orientation, technological advancements, and changing patterns in economic production, have affected the environment. In the Egyptian context, for example, housing production has become a matter of adopting modern designs and materials, not taking into account the climate, environment, and appropriate types of resources (Hanna, 1988; Fathy, 2000). Recent strategies have pleaded for environmentally suitable housing, making use of the local natural resources (e.g. Agenda 21, The Millennium Development Goals, Sustainable Development Goals). African

countries have substantial natural resources and they could be successfully used in the housing production (Montana and Endres, 2012). This has yet to result in an appropriate perception of development which will utilise available local resources (Simon, 1992; Said, 1994; 2003; King, 1997; Simone, 2001; Malaquais, 2006; Arowolo, 2010).

The environment plays a significant role in relation to housing; under suitable conditions, people's choices in terms of housing varies widely. However, when the environment has been disturbed due to extreme ecological conditions causing a shortage in housing, people will accept almost any type of accommodation (Wentling, 1995; Parrot, 1997; Beamish *et al*., 2001). Thus, sustainable housing provision ought to take into consideration affordability, housing quality, and social equity regarding accessibility (Gans, 2005; Simon *el al*., 2016).

2.5. Components of housing

Since the 1960s, housing has been increasingly required to provide solutions to problems of shelter, building efficiency, producers' and residents' financial needs, and social equity. It has also been expected to resolve the complex relations between housing and the socio-economic services. Nowadays, policy makers need to integrate various aspects of housing – socio-economic policy, urban policy and urban administration, and finance. When trying to describe the conceptualisation of housing, particularly in relation to 'less developed' and 'newly industrialised' country status, the notion of housing becomes even more complicated (Pugh, 1986). This could be, for example, as a result of questions regarding security of tenure, location, cultural adequacy, availability of infrastructure and services. Even more so, when referring to housing as having 'invisible structures' (Peattie, 1983) that control how people use housing, and the way housing resources are being distributed. On the one hand, these invisible structures are part of the building codes, the rules of legal tenure, and urban development plans, and on the other hand, they are

uniformalised provisions like the building materials suppliers, neighbourhood associations, labour unions, and administrative organisation. It has been mentioned in the relevant literature that the visible structures work well when the invisible structures are properly designed (Peattie, 1983; Turner, 1986).

Housing qualities and quantities depend on resource availability, which is administered by social institutions. Consequently, one of the main housing priorities is institutional change, comprising changes in the means of housing (land, work and technics) and changes in the housing process – the forms (Turner, 1980a). Any housing situation can be illustrated as one or a mix of three basic housing programmes: programmes that establish tenancy, that improve inadequate homes and neighbourhoods, or housing programmes that develop new homes and neighbourhoods. Good housing programmes provide adequate physical space for family, neighbourhood, and city activities, good facilities and services, with suitable transferability and security, at affordable prices. The resulting products are attributable to modes of production (techniques, labour and land). The allocation and use of these resources are regulated by institutions: the power hierarchy exercised through the formal and informal rules, and the exchange values placed on products and actions (Turner, 1979; 1980b; United Nations, 2014c; Forrester, 1998; Simone, 2004; Rakodi, 2007; Simon, 2011).

2.5.1. Housing form

The design of housing is considered the least significant aspect of housing production, even though it can change the housing techniques, this is usually limited to specific programmes. Although forms and styles can have broader impacts, they are generally indirect. The key problem in the housing architecture is the link between the physical barriers (responsibilities for maintenance, tenures, and uses), infrastructures (networks servicing the area), and the boundaries and buildings (Turner, 1980a; b; Jacob, 1993; Marmot, 2002). When there

is not a clear definition of a particular tenure form – private and public – problems arise in terms of who has the right to manage it, use it, and maintain it. In addition, when a built environment is developed in violation of urban policies, it constraints that area in gaining access to infrastructure. Moreover, the building regulations set the rules of what form and uses can be utilised, and at times these may not satisfy the people's needs.

2.5.2. Resources

The main resources of housing are land, labour and building technology. Capital should not be seen as a resource. The habit of labelling finance a resource is risky as it can promote the benefits of those who have it by emphasising the idea that those who do not have enough money are helpless to do anything. Property tenure is a key housing factor and relates to residents' specific rights. This factor has a significant influence on an individual's sense of security, and on communities' stability. For low-income people, the most important functions of tenure are security and transferability.

With the global population growth, land has become a world-wide issue. Given the nature of land, being immobile and not supplied by demand, it cannot be exchanged as a product without serious economic disadvantages and inequalities. The leading dispute, however, is still indicated by the 'private' versus 'public' ownership. Even though the 20th century has brought huge benefits in housing ownership, the governmental monopolisation makes it difficult for the citizens to access land. Moreover, local businesses also contribute to land inaccessibility through inflated free market prices (Turner, 1980a; b; 1986; Gough and Yankson, 2000; Payne, 2004; 2005). The key objective in promoting sustainable housing is to increase the use of resources that are: abundant or renewable, durable, minimal in energy-consumption, low maintenance, recyclable, are found locally, and need only simple tools which can be operated by labourers and

run by small businesses (Turner, 1980a; b; Frey, 1999; Fathy, 2000; Holden, 2004).

2.5.3. Institutions

Every activity depends on four key powers: the decision-making powers people have; the actions they take; the rules they must obey; and the outcomes of the actions performed. The power structure refers to the local community, market and state, and the key question is 'who decides?' In terms of housing, the people who ought to contribute to the decision-making process should be the people in their own communities, to ensure effective personal and social development. To lead a satisfactory life in the environment, people need to have their input, as stated by Habraken (1975; 1980, p12), "*dwelling is building….to build is to exercise power and to change the environment .... Only when users themselves exercise power, by directly influencing and controlling a part of the physical environment, can we expect healthy, vital, steadily improving environments*". By promoting active participation and empowering the residents within a community, the fabric of the neighbourhood is maintained, contributing to its sustainability (Tipple, 1996). Current housing (building and planning) regulations provide thorough descriptions of programmes declaring who can benefit from these programmes, as well as when, where and how. They have, however, made progress in terms of the forms – limiting the physical quality and function of building elements (Turner, 1980; Simon, 1992; Tostensen *et al*., 2001; Simone, 2004, Murray and Myers, 2006).

Housing should not be centrally supplied, but centrally supported (Turner, 1980b; Simon, 2011). Following Turner's (1996, p344) advice, housing should be perceived as a mean to fulfil one's life

> "… *by absorbing peoples' activities and so destroying opportunities for fulfilment, centrally managed housing defiles persons and wastes material resources, generating a dirty and ugly environment… Crude as it may usually be, the architecture*

of low-income, self-built homes and neighbourhoods reflects a recovery of the vernacular roots of genuine culture, along with the material foundation of a sustainable way of life."

In other words, there is a need to improve the governing institutions in order to make housing not an end in itself but means to bettering people's lives by meeting their needs, in particular the disadvantaged.

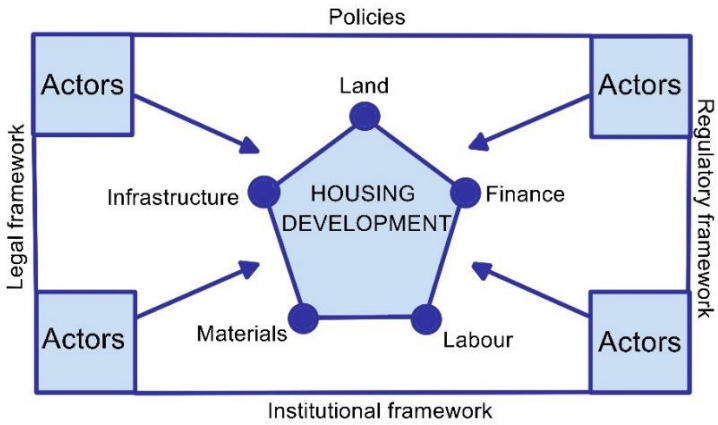
2.6. Concept of housing policy

"There is no logic that can be superimposed on the city; people make it, and it is to them, not buildings, that we must fit our plans" (Jacobs, 1958, p127).

"We expect too much of new buildings, and too little of ourselves" (Jacobs, 1993, p334).

The concept of 'policy', as defined by Cambridge Dictionaries Online (2016), is "*a set of ideas or a plan of what to do in particular situations that has been agreed to officially by a group of people, a business organization, a government, or a political party*". In short, a policy is a rule that guides decisions to achieve rational outcomes. Jiboye (2011) claims that policies are financial, political, and administrative mechanisms set to reach clear goals. Accordingly, a housing policy is an action plan offered by the government to meet people's housing needs through a set of strategies including financial, official, and regulatory frameworks (Figure 2.8).

Figure 2.8: Housing development - Conceptual view



Based on UN-Habitat, 2011b

At their best, housing policies aim to achieve affordable and appropriate housing for all groups in a society and to ensure that the housing market works effectively. In reality, however, the policy objectives affect different groups in different ways, from which emerge equity considerations: those who lose versus those who gain. Consequently, urban planners and politicians become key promoters of distributive justice in relation to urban space. In the context of this study, distributive justice is referred to the fair allocation of resources among all members of the community. The housing policy plays a crucial role in attaining social justice because it involves allocation decisions that affect how public resources are spent among different categories of urban dwellers within towns and cities. However, it is not the instant solution to all urban problems because policy takes time to materialise (Bakr, 1996; Smith, 1994; Agbola, 1998; Duruzoechi, 1999; Hobson, 1999; Olatubara, 2002 cited in Jiboye, 2011; Maiese, 2003; Lux, 2009; Harvey, 2010; Rydin, 2011; Maarouf, 2013; Yankson and Gough, 2014).

Policy acts as a key agent of change in shaping the political and socio-economic life of cities by regulating land use and development, guiding the infrastructure planning, securing the rights of investors, protecting environmental resources and mitigating the environmental risks. Moreover, housing policy defines which land rights and buildings are legal and which are not, while deciding the broad factors for housing development. Housing policy represents an important matter for rich and poor people worldwide. Rich countries offer access to credit through which the majority of people buy their fully serviced housing provided by developers or private builders. Conversely, in poor countries, access to credit is mostly available for higher-income households, while the poor build incrementally with limited access to formal financing (e.g. through in-situ upgrading schemes, subsidised housing schemes) (Struyk and Turner, 1987; Willis and Tipple, 1991; De Soto, 2001; Harris and Arku, 2007; Choguill, 2007; UN-Habitat and AECOM, 2010; UN-Habitat, 2011b; Katz *et al.*, 2012; Berrisford, 2013;

Ngau, 2013; Yankson and Gough, 2014; Arnott, 2015; Kochhar and Oates, 2015).

This fact gains striking importance when related to poor and low-income people, which represent 71% of world's population and 75% of Egypt's population (Pew Research Centre, 2011). The real estate sector, estimated at 9.4% of GDP, plays a significant role in the Egyptian economy, alongside the construction sector (12.5% of GDP) and the manufacturing sector which contributed about 63.1% of the GDP for 2013/2014 (Saladin, 2014).

Over the past seventy years, the central government in Egypt has had almost total control over the urban housing sector, starting from the decision-making process to policy, planning, finance and complete implementation. Although it has been estimated that LE26.4 billion has been invested in housing supply over the last twenty-five years, Egypt still battles a worsening housing crisis (Alsayyad, 1993; Wahba *et al.*, 2007; Landman and Napier, 2010; Soliman, 2012b; UN-Habitat, 1996c; 2013). The idea that the policy, among other factors, is one of the causes of the housing crisis is at least over 100 years old, as mentioned by Sax (cited in Engels, 1872, p64): "*First of all the state must take care that in its legislation and administration all those things which in any way result in accentuating the housing shortage amongst the working classes are abolished or appropriately remedied.*"

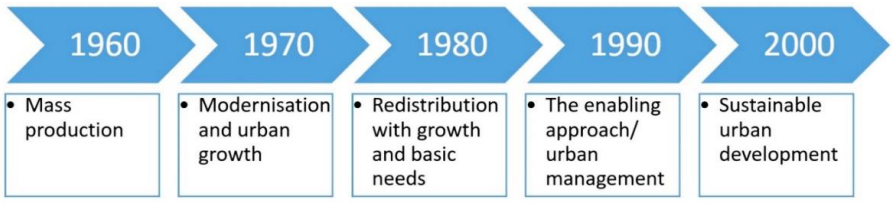
Various planning theories, such as the linear city by Soria Mata in 1882, the garden city by Ebenezer Howard in 1898, the satellite cities by Raymond Unwin in 1922 and the Broadacres city by Frank Lloyd Wright in 1932, aimed mainly to cope with the beginning of the housing shortage triggered by the Industrial Revolution, and inspired ideas of gated communities. Since the beginning of the 20th century, urban housing has followed a standardising path, applying the 'international style' around the world. As a result, apartment buildings in Cairo resemble those in Bombay, Moscow, Seoul, or São Paulo despite varying in construction materials, size, and shape (Jacobs, 1961;

Angel, 2000; Friedman, 2005; Habraken, 2005; Frampton, 2007; Salon, 2009; Brown *et al.,* 2009; Lara and Kim, 2010; Porter, 2010; Alfouzan, 2012; Hassan *et al.,* 2014).

Various scholars claim that planning and housing policies have to account for the local cultures that develop in relation to their historical, geographical and socio-economic contexts. This denotes an approach to incorporate structures of meaning and feeling into the planning process, while featuring the right to adequate housing, sustainability, and economic growth. As a consequence, housing policy should be a fair, transparent, accountable process of engaging all community stakeholders (Linn, 1983; Cervero, 1995; Levinson and Kumar, 1997; Myers and Puentes, 2001; Tipple, 2001; Payne, 2001; Majale, 2002; Schwanen *et al.,* 2004; Thomas and Cousins, 2005; Angel *et al.*, 2005; Sanyal, 2005; Booth, 2005; Porter, 2010; Nada, 2014).

Over the last few decades, several main landmark events have developed among local and international organisations (Habitat Conference at Vancouver in 1976; Agenda 21 in 1992; the MDGs in 2000 and Goal 11: Sustainable cities and communities; Sustainable Development Goals in 2015 - Goal 11: Sustainable cities and communities) focused on urban and housing policies for cities that have an impact of their evolution and process (Figure 2.9). These landmark events have created trends that are concerned with the responsibility of governments to design housing policies that will stimulate socio-economic development, the form and practice improvements to address the rapid urban growth, and the approaches employed in order to meet the urban poor needs (Handoussa *et al*., 2010; Soliman, 2012a; b).

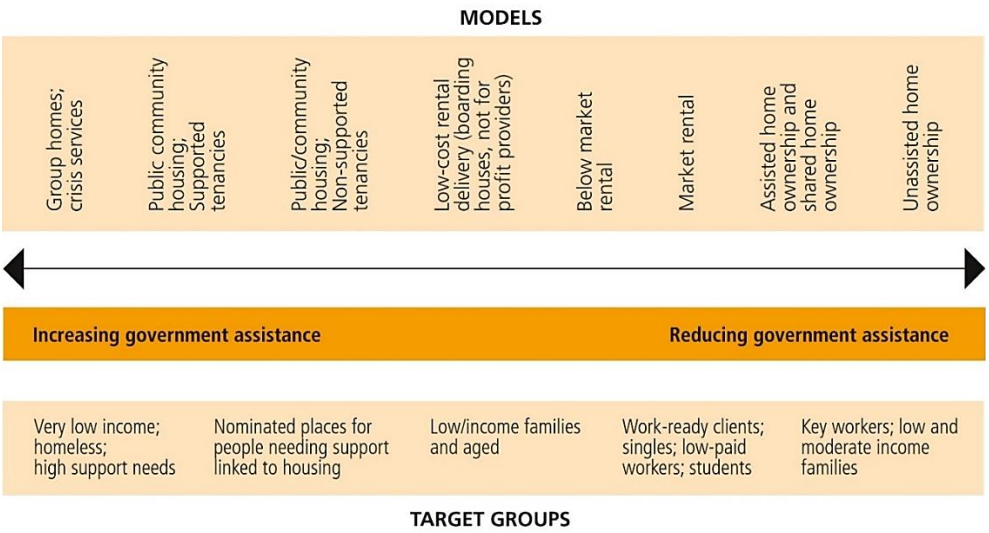
Figure 2.9: Housing policies evolution



Based on UN-Habitat, 2011b

Housing plays a vital role in our lives, thus housing analysis has the potential to improve the quality of life in every country. This analysis aims to understand the equity and efficiency of housing policies and their effects on the housing production (Willis and Tipple, 1991) as they impact directly the socio-economic settings in relation to household savings rate, inflation rate, government budget deficit, productivity levels, and infant mortality (Angel *et al*., 1993; Arimah, 1997). Policies ought to be designed to achieve various solutions for households at different steps on the income ladder and providing housing opportunities for everyone (Figure 2.10).

Figure 2.10: Affordable housing provisions



Based on UN-Habitat, 2012c

2.7. Housing theory

In 2009, King posed the question of whether housing can be theorised about, and if it can, why it is rarely attempted? The first school that endeavoured to seek general explanations from the urban morphology, was the Chicago School in the 1920s. Their work explained urban social circumstances from an ecological and functional determinism view. From this perspective, social characteristics were thought to arise from natural factors in the urban environment. For instance, the social characteristics of slums were assumed to emerge from bad housing conditions instead of from

inequality and poverty. The School postulated that by improving the physical attributes of housing, the slums would be eradicated. Thus, in the 1920s, the physical built environment was perceived to be the cause of social performance, as opposed to being the outcome of social and economic structure (Pugh, 2001).

During the 1960s, housing theory focused on the researchers' 'learning by observing' experiences in Asia, Africa, and Latin America. Their observations brought to light that in developing countries, housing conditions were inadequate because the problems had been ignored. The new paradigm promoted slum improvement and self-help programmes, noting that people improved their homes gradually, over a period of time. It proposed that when the residents are involved in the decision-making process, homes prove more cost-effective than the governmental housing, and better fulfil their needs. This is the concept that the poor are capable of housing themselves, when left to their own devices. During 19th and early 20th centuries, various social idealists such as Peter Kropotkin, Patrick Geddes, and Martin Buber advocated the idea of participation in housing development, using local and self-sufficient economic development rather than being controlled by authoritarian impositions. These ideas have influenced many succeeding scholars and planners (Abrams, 1964; 1966; Turner, 1968; 1972; 1976; 1996; Turner and Fichter, 1972; Ward and Macoloo, 1992; Pugh, 2001; Yeboah, 2005).

Although an influential urban theorist, Turner's theories were contested by neo-Marxists and dependency theorists like Burgess (1979, 1984). Burgess adapted Engels' (1872) critiques of housing programmes for the working-class dwelling ownership. Marxists considered that self-help housing programmes become commercialised within unequal social strata relations in the capitalist system. In terms of policy, they reasoned that the problems of low-income housing may be eradicated only through socialist ideas that would abolish class exploitation. Turner opposed the Marxist view by stating that housing supply does not increase or decrease according

to workers' wages, as claimed by Burgess. Furthermore, reviews of socialist housing practices in developing countries reported economic inefficiencies, gross shortages, and policy concessions in favour of homeownership (Strassman, 1982; Mathey, 1990; Pugh, 2001). The new paradigm viewed the physical environment as an enormous range of economic investments which reflected basic structural conditions in society (Pugh, 1986).

Since then, the literature has diversified extensively, ingraining housing within specialised fields like sociology, economics, politics, and in related subjects, writing it from a position of commitment to particular theoretical frameworks. This makes one wonders whether the essence of housing can be captured in a single theoretical framework, either neo-Marxism, neo-classical economic liberalism, or institutionalism. Housing theory is important and it can be argued that policy discussions will be without direction and coherence unless statements proceed from a clear theoretical basis that goes beyond the descriptive and the uncritical, thereby providing a better basis for good policy development (Marcuse, 1982; Pugh, 1986).

Friedmann (1973) takes a rather pessimistic view regarding the development of housing theory. The practical questions of how to provide adequate shelter for those who need it has not attracted a handful of theoretical minds. For example, Kemeny (1992), in his influential study about the nature of housing in social theory, claimed that housing research was limited to only observation, so it has not advanced with the social sciences. His argument was that housing scholars should have aimed to engage with ideas and theories from economics, sociology, and politics because, importantly, Kemeny did not see housing as a discipline in itself, governed by its own theories and methods. Over the 20-year period between these publications, under the pressure of the rapid urbanisation and spread of informal areas to shelter the poor, housing has become a major topic that attracted key theorists and international organisations (see 1.1 and 2.3 sections above, and 'Housing issues' below).

Many experts have contributed to the analysis of housing policy – technical libraries around the world are choking on low-income housing studies – but a theory of housing has not emerged from any of these efforts; nor is it ever likely to do so. The housing question is too intimately bound up with the realities of particular situations to lend itself to more than very low-level generalisations. Indeed, social science contributions to the housing literature have not developed a specific theory of housing, independent of either conventional or less conventional general theory in subjects such as economics, sociology, politics or social theory. Theory there is, but housing has tended to be treated as an extension of the home theories in social science subjects. For example, some specialists in social administration would want to argue that such subjects as housing should be properly studied by examining them as social problems and then drawing upon various social sciences in a cross-disciplinary way to find solutions. Such an approach will sometimes, nevertheless, remain somewhat dependent upon general home theories in the social sciences, because the criteria for evaluating policy are more or less related to the theories. The problem then becomes one in which we see housing studies largely remaining within the province of particularist home theories rather than cutting out a systematic body of knowledge in their own right. In short, to the extent that theory has existed in housing studies, it has subordinated housing to home theory in social science (Pugh, 1986; Li, 2004; King, 2008). Some scholars argue that theory is key to any research, and indicates the reliability of the field, thus proves beneficial to have theory to guide the study of housing (Touliatos and Compton, 1988; Steggell *et al*., 2001).

Recent literature in housing has been marked by two key characteristics. First, housing practice, focused on the most visible housing problems, has been shown to have added to the inequalities in property, income and power in some institutional and national settings in both capitalism and socialism. Housing inequalities are of concern either because in socialism they offend against the prescribed values of the political system or because in capitalism they add to other

significant inequalities. Second, housing studies have enjoined ferment, contention and ideological controversy among liberal-utilitarian, institutionalist and neo-Marxist writers. Theoretical disagreements have persisted throughout years, without an appropriate housing theory (Pugh, 1986; Rakodi, 1992; Anderson and Sim, 2011; Tunstall *et al*., 2013).

To theorise about housing, it is necessary to engage in a philosophical discussion about the theory of knowledge, mentioning the three different theoretical schools of housing. The neo-classical or liberal-utilitarian method, stems from the neoclassical economics (the economics in Western Europe and North America) and regards society as a group of people whose nature is supposed to be conferred. Thus, the fulfilment of their needs impacts the economy and the nature of society. In their analysis of the economy, Neo-classical economists make four assumptions. First, the consumers' preferences influence the production of goods and services. Second, all households and businesses hold adequate information. Third, based on the second presumption, households maximise utility and businesses capitalise on profits. Fourth, production is viewed as flexible, in which its factors can be interchanged. Neo-classical economists start from the idea that economics is about choice in a situation of shortage. They regard housing services as being traded in markets where people seek to satisfy their shelter needs by paying rents or buying a house. Nonetheless, housing combines both, markets and public economics (Mills, 1972; Pugh, 1986; Tan, 2001; Li, 2004; Bolhouwer, 2011; Marsh and Gibb, 2011; Smith, 2011; Rossi-Hansberg and Sarte, 2012).

Neo-classical economists consider the external value of housing, referring to a house's characteristics impact it has on other residents and, possibly, businesses. For instance, investment in a house (the economic transaction) indirectly affects a party not engaged in the transaction (e.g. neighbour), and that party cannot demand compensation. Neo-classical economic theory does not see housing as a way to redistribute income; in fact, housing is politicised in this

way, thus seeing housing theory as public policy. Housing is perceived as part of the anti-poverty policy that randomly redistributes income through ways tenancy costs are influenced by tenure and financial instruments. Fundamentally, neo-classical economists use their theory to investigate principles of efficiency, incentive and maximisation of utility or minimisation of costs. In regards to housing they are involved into social and public policy. This causes the new-classical economists considerable problems since their theory is rooted in the methodological individualism. The neo-classical theorists regard housing as an incomparable possession, next to health, social security, education, and other exceptional goods. Neo-classical economists believe that economics should be separated from politics.

The institutional perspective has reconciled with politics, and its main concern was integrating institutions into housing study. Primarily, an institution entails informal limitations, policies, and the application of both. Institutional economists believe that public policies are essentially articulated through institutional procedures. Institutional analysis concentrates on groups and organisations, as opposed to the neo-classical approach that highlights utility of individuals. By interacting with each other on a regular basis, the members of a group encourage shared values and commonly accepted rules (institutions). To include institutions in housing analysis it is necessary to define a housing system. A building provision identifies historically dependent networks of relations related to the provision of specific types of buildings. The analysis of institutional authority is a key research element and it leads to developing strategies to control or resolve conflict. Institutionalists consider that public policy economics occurs within a framework of political power, conflicts of interests, and the broader historical and social influences that shape how institutions are established. Housing exists in the political economy framework, under the institutional perspective, which recognises that various strategies that can be applied to create structure, including markets and the nations' economic, and socio-political roles (Ratcliffe, 1949; Grebler,

1952; Smith, 1970; Gruchy, 1972; Murie *et al*., 1976; Myrdal, 1978; Bassett and Short, 1980; Pugh, 1986; North; 1989; Ball, 1996).

The neo-Marxist approach is directly inspired by Marx's analysis of the conflict of capitalism, with a vision to replace it with socialism. The main theme of Marxist investigation is related to the economic organisation comprising of the forces (techniques) and the relations (ownership) of production. Marx views modern societies as capitalistic, in which the guiding force behind social change is the demand for constant economic transformation. Furthermore, Marxists put more emphasis on class divisions, power, opposition, and ideology than those who supported the institutional view. They consider that social change occurs as a result of the interaction with the material environment; people actively interact with the material world, looking to use it to their purposes. This has been stated as the dialectical interpretation of change. The neo-Marxist approach considers that the state serves the functional needs of capitalist development, being unable to overcome the internal contradictions between social policy and the private interests of capitalists. The neo-Marxist political economy emphasises that the roles within a state intersect with private enterprise, and that housing has various relationships with the economy, including unemployment, interest rate, inflation policies, and the economy profitability. In the neo-Marxist view, housing is highly politicised. However it does not agree with the idea that the government can reform economic institutions effectively in order to attain equality between the state and the market economic roles (Tawney, 1964; Titmuss, 1974; Marx, 1990; Gough, 1979; Marshall, 1981; Pugh, 1986; Li, 2004).

In terms of housing finance, neo-Marxist theory does not vary significantly from neo-classical theory. Both mention the financial instability, lasting housing mortgages, and the link between the funds and housing production phases (Harvey, 2007). Engels (1872) disagreed with the proposition that home ownership is the answer to the housing problem, claiming that mortgage debts will prevent people

from searching for work elsewhere. There are various disagreements in urbanisation which could be summarised as: conflict between the profit of the productions sector and the infrastructure investment; conflicts between residents, workers, investors, and government agencies; profitable investments in the private sector; and opposition between physical capital and financial capital. Thus, the main urban problem revolves around the production-consumption disagreement (Castells, 1977; 1978).

According to Pugh (1986), housing theory can lead to the theory of knowledge in one direction, and to the policy in another direction. Moreover, theories are the simplifications of reality, intended to identify or highlight main features and processes. One question that emerges is whether there can be an all-inclusive 'grand theory' to support housing research. Some consider the absence of a theoretical framework as a considerable weakness, making it impossible to transcend single incomplete analyses, while others regard existing theory as a fair reflection of the complexity of housing (ibid). Thus, the assumed theoretical angle in any housing research may be adjusted to or guided by the specific research question being addressed. King (2009) claims that housing offers a good base for interdisciplinary research, being a method on which social theories can be expanded than a theory in its own.

Even though many housing researchers have used existing social theories effectively, it has not led them to attempt theory conception themselves. For instance, Steggell *et al*. (2006) discovered that 73% of housing articles issued in 'Housing and Society, Environment and Behaviour, and Family and Consumer Sciences Research Journals' during 1989-1999 stated a theoretical basis. Yet, only a few articles identified testing a theory as an outcome of the research. King (2009) states that is more beneficial to study the concept of housing which focuses on meeting people's needs than focusing on the housing policy, which he sees as aggregated and standardised. However, Clapham (2009) claims that housing policy is concerned with more

than just the general and standardized, being established on the meaning that housing has for the residents.

Housing is so complex and affects various areas of life, and it is difficult to be theorised within a single discipline. As a result, a more holistic conceptualisation of housing is required, integrating topographical, cultural, social factors in the use of space, contained by a specific historical perspective. Some scholars have claimed that there is only housing and theory, but there cannot be a theory of housing due to its interdisciplinary characteristic – socio-cultural, politico-economic, and environmental aspects (Allen and Gurney, 1997; Franklin, 2006; Clapham, 2009; King, 2008).

This study of housing ownership mechanisms in Cairo is not restricted to any of the above-mentioned theories, but rather investigates the different variables and forces that shape the built environment in the city. In my view, housing can be theorised upon, but can prove quite challenging to create theory on or out of due to its great complexity. Furthermore, it is more beneficial to assess the housing dynamics with the aim of meeting people's needs than adopting a particular perspective of housing theory. Thus, a more flexible and holistic approach is employed for this study. The research focuses on understanding the application of housing mechanisms in Cairo, using Rakodi's (1992) advice and Simon's (1992) approach to evaluating urban housing mechanisms at national and city levels. Rakodi urges people to try to understand how cities work and how to manage them more efficiently. Simon examines the different forces that shape the built environment at different geographical levels – global, national, regional, and local. In this study, I aimed to understand how housing ownership mechanisms work in order to promote a more effective way of managing Cairo. That involved identifying the different forces (i.e. socio-cultural, political, economic, and historical) that shape the housing ownership dynamics in Cairo. At various stages of the research, that required placing Cairo in the Egyptian context in order

to appreciate the weight of Cairo within Egypt and also to offer a more holistic assessment of these forces.

2.8. Housing issues

2.8.1. Housing and urbanisation

The growth of inadequate, informal housing is regarded as a normal response to rapid urbanisation phenomenon, because housing markets are unable to cope with the huge demand and urgent need for shelter, especially by the relatively or absolutely poor. Thus, to some extent it is acceptable to say that informal areas appear when design, land management and policies fail to attend the needs of the public. All over the world, informal settlements are perceived as a major issue given that they accommodate the most disadvantaged groups in conditions that threaten human development, particularly in developing countries (Fernandes and Varley, 1998; Tostensen *et al*., 2001; Murray and Myers, 2006; Gandy, 2006).

Economic advance and urbanisation have turned out to be inseparably interrelated. With over half the world population being urban, one of the questions posed by the rapid urban growth is whether to lament living in cities for its expanding slums, or to appreciate the chances the city has to offer (UNFPA, 2010). While policy debates have recognised that urbanisation is an irreversible phenomenon with more positives than negatives, the main challenge related to urbanisation is that it has failed to keep up with residents' and migrants' housing needs (Hingorani and Tiwari, 2014). It is estimated that more than 30% of world's urban population dwell in inadequate housing, slums, or are homeless, out of which the poor suffer the most (UN-Habitat, 2010b). For instance, in many African towns and cities, less than 10% of the population resides in adequate housing (Struyk and Gidding, 2009; Huchzermeyer, 2011; Simon, 2011).

The growing problem of slums is regarded as of global concern (Glenn and Wolfe, 1996; Fernandez and Varley, 1998; Abdelhalim, 2010).

The current world's population counts around 7.3 billion and is estimated to reach 8.5 billion by 2030, 9.7 billion by 2050 and exceed 11 billion by 2100 (UN, 2015b). In 1990, about 2.3 billion (43%) of the world's population lived in urban areas, and by 2015, it had almost doubled, reaching 4 billion (54%). In 1990 there were 689 million urban people living in slums, and is now estimated that 881 million dwell in these conditions (UN-Habitat, 2016b). Informal housing provides shelter to millions of urban poor all around the less developed countries who are unable to access formal adequate housing (Soliman, 1996; UN-Habitat, 2015a; 2016b).

In recent years, informal areas have started to be considered the result of ineffective laws, unsuccessful housing policies, and unsuitable delivery systems, instead of a simple manifestation of the population growth (Dowall, 1991; Keivani and Werna, 2001b; Kinyanjui *et al*., 2010). Worldwide, seven key myths have been related to slums: the high number of people to accommodate; poor are to blame for slums expansion; slums are places of social degradation; slums are an inevitable consequence of development; slums can be eradicated through economic liberalisation and free market; international aid will solve the slums problem; and there will always be slums (Parsons, 2010). The governments' attitudes towards slums vary from resistance, desertion, to regarding the poor as builders of the city (Dwyer, 1974; Hardoy and Satterthwaite, 1993; Fekade, 2000). Moreover, the informal is connected to the formal sector through a network of relations established, for example, by various taxes and expenditures that exists between the two (Alsayyad, 1993) (see Chapter 7).

With the establishment of the modern planning system, housing production has typically been divided into two forms of provision – formal and informal (Assaad, 1993; Arandel and Elbatran, 1997; Fekade, 2000; Payne, 2001b; Porter, 2010). Fundamentally these forms of provision represent two distinct practises. Formal modes of housing production are established by public or recognised institutions

through conforming to building regulations, while informal housing production has been mostly produced by individuals that have been produced without formal development permits and do not conform to building regulations.

Moreover, there has been a juxtaposition between formal and informal housing as seen in the cases of transformation, either by upgrading the informal settlements, or by degrading the formal housing due to change in its use or illegal extensions (Rakodi, 1992; Burgess, 1992; Beall, 1997; Lupala, 2002; Ababsa *et al*., 2012; Heikkila and Lin, 2014). These housing activities can be categorised into three types of operations: planning, building and administration, in which three key players are engaged: users (public, private, and popular sector), suppliers (private and business sector), and regulators (government and public sector). The players can have very distinct interests: for users, the use-values prevail, for the private sector the profit, while for government, the public regulation (Burgess, 1979). However, the interactions between these interests are dynamic and can adjust in accordance to each other (Gilbert, 2004; Kamete, 2006) (see Chapters 5, 7 and 8).

Turner (1986) explains the formal housing mechanism through three means – land, people, and labour, in which the land is allotted to people and then they co-ordinate themselves in order to proceed with building. In informal areas, the means are interchanged – first people illegally or through conversion acquire land, then they start building. However, both housing production systems depend on an interdependent activity in which land, labour, materials, and management are in a constant exchange structure. Thus, housing can be understood as a ‘semi-detached system’ of co-dependent activities (physical, socio-economic, political) involving government, commerce, industry, and people (Turner, 1979) (see Chapters 7 and 8).

Although it is well acknowledged that housing and basic infrastructure provide an enabling environment for the overall development of the

city, and efforts have been put into providing better housing and infrastructure through increased public spending and policy interventions, it is uncertain why the outcomes are still unsatisfactory. A valid reason could be that the urbanisation happens at such a fast rate that any efforts to offer better housing and infrastructure would prove insufficient. It may also be that the frameworks within which these efforts are being made are ineffective and do not allow the condition to improve (King, 1976; Simon, 1992; Durand-Lasserve, 1998; Yonder, 1998; Simone, 2004; Hingorani and Tiwari, 2014). The Global Human Settlement Report 2003 claims that urban poverty and slums are not just an expression of a population growth, but a result of a failure of housing national and urban policies (UN-Habitat, 2003).

2.8.2. Housing: quantitative vs. qualitative

Housing crisis is often referred to in mainly quantitative terms (Kamete, 2006). The gap between demand and supply is possibly the intimidating marker used by advocates of increased housing supply. The continuous rising housing shortages, and the growing number of people in need of housing, and those who contest the shortages seem to be definitely incompatible (Hardoy and Satterthwaite, 1989; Payne, 1977). Regularly, the debate mentions aspects like land delivery, urban growth, shelter strategies, housing finance, housing markets, institutional capacity, and building technology (Mayo *et al*., 1986; Lim, 1987; Doebele, 1987; UNCHS, 1990; World Bank, 1993; Rakodi, 1991b; Yahya *et al*., 2001). However, the fundamental idea behind these debates is certainly the need to remove constraints and increase housing supply (Sumka, 1987). Often, housing programmes are judged by the housing supply they manage to generate and by their input to reduce housing shortages (Mayo *et al*., 1986), particularly in the low-income urban layers (Burgess, 1979, 1982). This applies not only in academic spheres (Buckley and Mayo, 1989), but also in the decision-making groups and institutional policy (Shildo, 1990), at local and international level (World Bank, 1993).

Various prominent housing analysts have determined other housing issues apart from quantitative deficiencies such as poor housing quality, housing prices, squatter problems, health problems, overcrowding, obsolescence, and suitability (e.g. Mayo *et al*., 1986; Hardoy *et al*., 1990; Okpala, 1992; Tipple and Owusu, 1994; Clauson-Kaas *et al*., 1996; Simone, 2004). Moreover, part of these qualitative housing problems such as the urban health concern represents another governmental justification for slum upgrading or removal schemes seems. Although these qualitative housing issues have not received as much attention from national and international organisations, they are real problems which require different solutions (Tipple, 2004). The qualitative housing issues need solutions unlike those that focus on increasing housing units, which is at present the typical approach to resolving all housing problems in the countries in development (Kamete, 2006).

The simplistic view that the housing issue is a shortage in number problem to the capitalists, investors, and government is essentially disbelieved. Even those in control of the housing supply can no longer admit that the answer lies in investing more money, in using industrialised building systems, or employing directed self-help housing programmes (Turner, 1980b). It can be argued that solving the insufficient numbers problem it is not necessarily "*the most effective or efficient way to solve housing problems*" (Agus *et al*., 2002, p9). As Turner (1986) claims, when housing issue is quantified in terms of housing deficits, the policy objective becomes the production of more housing; this generally counter-productive policy has often contributed to the demolition of slums. To state that housing production, whose main goal is to eradicate housing deficiencies, can meet all housing needs, particularly for the deprived, would be to have an unrealistic expectation of quantitative housing problems (Habitat, 1996b). While the global housing shortage is undeniable, it definitely is not the only sort of housing issue faced by all people (Peattie, 1979; UN, 2000). Equally, solving the qualitative housing issue alone, will certainly not resolve everyone's housing issue. Planners and

governmental organisations often fail to realise that at the bottom of the housing issue is the mechanism of how the world works. The most important fact about housing is the meaning it holds to people.

To understand housing processes, we need accurate accounts of how the world functions in relation to housing. Therefore, qualitative research is exceptionally useful to understanding processes and connections such as institutions, submarkets, and programmes (Peattie, 1983; Turner, 1986; Fekade, 2000). This kind of research involves asking people who are involved in the processes, to describe the way things work through their experience (Peattie, 1983; Turner, 1986). However, some scholars have claimed that regardless how well-designed a housing strategy will be, it will prove difficult to tackle, all at the same time, the housing crisis in all its diverse, intricate and dynamic manifestations (Gilbert, 2004; Agus *et al*., 2002; Kamete, 2006).

2.9. Evaluation and conclusion

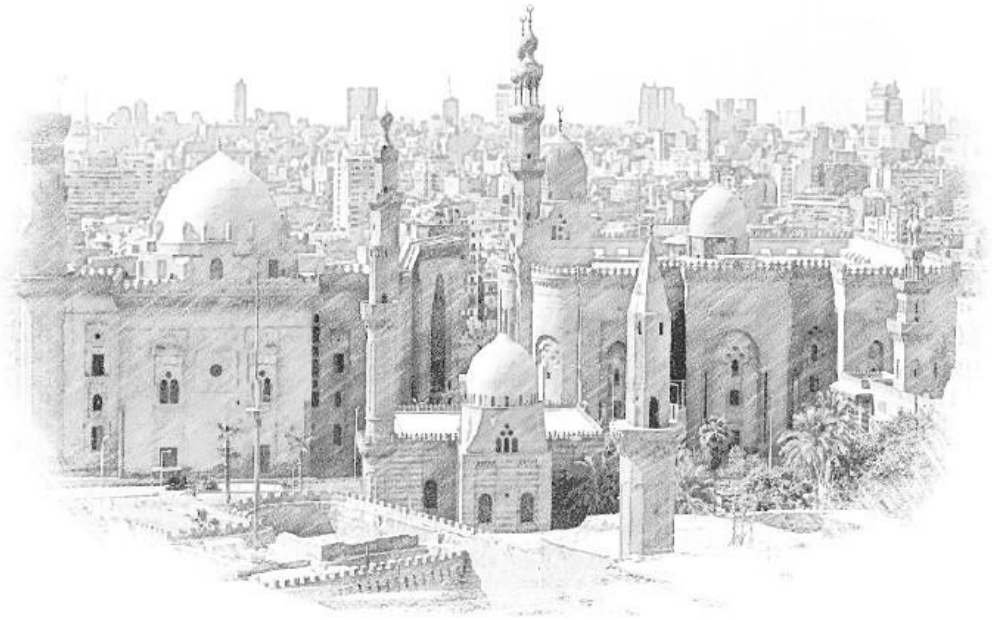
This chapter has provided the basis for understanding housing in the context of this thesis, taking into account its varied definitions, concepts, aspects, components, theories, and issues. This study regards housing on a broader scale than just a shelter; it views it as a mean to fulfil peoples' needs and to improve their quality of life over time. It is not an end product, limited to physical specifications, but a process which combines a dynamic interaction between different forces such as socio-cultural, politico-economic, and environmental. This dynamic generates several forms of housing using a variety of resources administered by institutions. When this complex system is working harmoniously it produces a framework of land and housing provision at its best (Simon, 1993). However, when it fails, the housing crisis thrives, as seen in degrading environments, spreading of inadequate housing, creating political unrest and economic instability. To cope with these unfavourable situations, many scholars have taken different initiatives to formulate housing theories, but with little

success. Therefore, this study aims to understand housing ownership mechanisms by combining different perspectives of housing theory – Marxist, institutional and neo-classical views, and making use of empirical evidence derived from case studies of informal settlements, governmental housing programmes and gated communities in Cairo see section 1.4).

In short, home is regarded as a humanistic idea that relates better to topics of environmental psychology and social investigation (e.g. safety, comfort) than to professional design debates (Mallet, 2004). It entails home as a place more than a space (Bower, 1980; Petridou, 2001; Delaney, 2005). From this standpoint, feeling, memory, experience, and context are more significant than form, size, or precise dimensions, though they are interlinked. According to Henri Lefebvre, home is at the centre of human life, architecture, and urban experience (cited in Harris and Berke, I997). But to create locally informed and valid designs that build on everyday spatial practices, professionals must understand the dynamics of this complex system (Abdelmonem, 2012). Thus, both terms – home and house – ought to be considered as important concepts in this study because of their interconnected relationship and for a better provision of what we can call home.

After establishing the foundation of the literature review, it is necessary to outline the scientific means of answering the research questions. The next chapter – 'Methodology' – explores the methodology and methods employed to conduct this research.

Chapter 3: Methodology



3.1. Introduction

Since ancient times, we have striven to perceive, understand and judge the world around us through sense-perceptions, memories and imagination, and research. Aristotle named this ability 'koinē aísthēsis' in 'De Anima' Book III, Chapter 2 loosely interpreted today as 'common sense'. He is also one of the first people to link the understanding of the world to research using scientific method, mentioned in Aristotle's 'Organon - Posterior Analytics' (Smith, 2016). Through both – common sense and research – people aim to make sense of the various aspects of their world. However, research as opposed to common sense (which is based primarily on experience and general knowledge), involves a specific approach to find or verify facts, confirm the findings of previous work, answer new or existing questions, prove hypotheses, or develop new theories.

The research ignites with the birth of what is known in academic terms as the research question. Once you ask the 'big question' of the research, you then assiduously review what has already been done to answer this question in form of the literature review, after which you sketch the framework (research design) that will help you answer the research question/s (Copeland, 1995; Wooten, 2001). This chapter considers the methodology and the methods used in the research. When using the term 'method' we refer to the actual means of data collection and analysis, while 'methodology' describes the views about the nature of reality (ontology) and knowledge (epistemology) on which the methods are being founded (Lees, 2003).

My research on Cairo involves historical understanding of the evolution of its built environment and social organisation. The city is changing over time in accordance with the circumstances of that time, and the study of its historical development is vital to understanding present housing developments and their problems (see Chapter 4 and Appendix B). This study focuses on understanding Cairo's housing ownership mechanisms (top down and bottom up) with the aim of

attaining sustainable urban development by identifying and scrutinising the different forces that shape the housing ownership dynamics. This shall be illustrated in form of a 'journey' to sustainability, where sustainability ought to be seen as a list of steps or components (i.e. housing, transport, infrastructure, etc.) that need to be analysed and understood at an independent level in order to reach the ultimate goal – sustainable development. This thesis uses housing as a tool of working towards achieving sustainability and the recommendations provided in 'Chapter 9' may help mitigate the housing issues, thus having a direct impact on the process of reaching sustainability. Once all components have been scrutinised and their specific issues mitigated, we can then fit all the pieces together, and walk the 'steps' that lead us towards sustainable development in Cairo.

To undertake a systematic analysis of the key aim and its relevant objectives, a blended methodology design has been adopted – a pragmatic approach using a multiple-methods approach, qualitative and quantitative data collection tools and an analytical technique focusing on housing policies in Cairo. The study of any area in a city combines both dimensions – theoretical and practical. For the researcher, the area is experienced partially in theoretical terms, while for the residents it is a lived reality. Some informal neighbourhoods are isolated spatially as well as socially segregated, and tend to be undiscovered by the rest of the city, at times avoided, or regrettably ignored. This research sheds light on such areas by exploring people's lived experience of shelter in this setting.

The planned methodology was to examine Cairo's housing policies in order to offer practical recommendations in view of sustainability in urban development. Various means of data collection were utilised – statistical official information, documents, non-participant observations, structured questionnaires of the identified sample localities (informal, gated communities, and governmental housing programmes in Cairo), and in-depth semi-structured interviews with locals, professionals, experts, and academics. The rationale behind

this methodical approach was to combine perceptions with decisions, thus drafting appropriate proposals to match the city's existing socio-economic, urban, and environmental setting. The interpretive paradigm was used to create the framework of the study.

The ‘Methodology’ chapter describes and presents study’s ontology (constructivism), epistemology (interpretivism), and methodology (case study) paradigms; describes the research design, methods (structured questionnaire, semi-structured interviews, and non-participant observation) and sampling; explains the process of data analysis and coding. This chapter also considers the validity and reliability, and the research’s ethical considerations and limitations.

This chapter consists of four sections. It begins with a succinct summary of the theoretical understandings which reinforce the research, then a brief revision of the research questions, moving into the data collection tool – primary and secondary data. To collect primary data, the qualitative methodology was utilised. Under this category, we mention semi-structured interviews and non-participant observation. The focus group method was also considered as part of the data collection, however during the fieldwork it proved unachievable. Although I tried to convince people to take part in focus groups, it was really difficult to persuade them in the current state of conflict in the country. Judging from the 'outsider's perspective', the country's main objective seems to be fighting terrorism and this has a big impact on the common people's views in participating in anything that ‘might bring trouble’. Quantitative methods were also employed in data collection by using a questionnaire, which is discussed in detailed in the second section of this chapter. The last section takes into consideration the ethics and the fieldwork research, relating it to the current unstable political situation in Egypt.

3.2. Research paradigms

To understand what a research process is, a syllogism ought to be applied. If any research process has three main dimensions: ontology, epistemology and methodology (Blanche and Durrheim, 1999) and a paradigm is a theory that guides the way we do things (Kuhn, 1996), then a research paradigm is a set of practices based on these three dimensions. However, the literature review suggests that the three aspects of research are sometimes used in a confusing manner: "*thrown together in grab-bag style as if they were all comparable terms*" (Crotty, 2003, p3). He then advises that these notions describe separate hierarchical stages (ontology being at the top and methodology at the bottom of the pyramid) of decision making in the research design process.

To exemplify, a researcher assumes a particular viewpoint at first concerning the nature of knowledge. This viewpoint or epistemology will trigger the entire research process and will direct what theoretical perspective will be adopted. The theoretical perspective will implicitly raise the research questions and influence the researcher's preference in terms of methodology. Based on the methodology chosen, the research methods will be selected. Each of the three dimensions of the research paradigm represents a different aspect of the research strategy, as briefly mentioned above. Ontology makes reference to a field of philosophy having to do with conveying the nature and organisation of the world (Wand and Weber, 1993). It specifies what exists and is a view on the nature of reality. Epistemology is perceived as the relationship between the researcher and the knowledge it un/dis/covers through inquiry and methods of investigation (Hirschheim *et al*., 1995). Methodology refers to the researcher's approach to finding out knowledge and carrying out the research (Antwi and Hamza, 2015).

The methodology converts the ontological and epistemological principles into strategies that tell how the research is to be conducted

(Sarantakos, 2005). The literature reveals that researchers often fail to enunciate the ontology and epistemology triggering their approaches (Perlesz and Lindsay, 2003). This implies that the researcher does not explain which theories of existence (ontology) and knowledge (epistemology) subscribes to, and by doing so it masks the motive behind data collection and analysis.

3.2.1. Ontology and Epistemology

Ontology is the first theoretical perspective in the theoretical framework of the research strategy. It is one of the three components of the research paradigm, and influences the researcher's topic selection, the development of research questions, and the approaches to conducting the research. Ontology denotes the researcher's worldview (either objectivism or constructivism) which significantly affects its perspective upon various aspects of reality. Ontology and epistemology perspectives upon the reality of the world influence the way studies are being conducted according to the purposes of the research. Moreover, the literature shows that the researcher may change his/her viewpoint according to the situation (Thomas, 2010). Ontology has three philosophical perspectives – objectivism, subjectivism and constructivism (Crotty, 2003; Gray, 2009; Cresswell, 2009).

To justify the preference for the constructivist approach for this study, it is appropriate to theorise it succinctly. According to the constructivism view, scientific knowledge is created by the scientific community while trying to measure and build models of the natural world. Constructivism regards meaning as a result of one's interaction with its reality. Consequently, meaning is constructed not discovered. Therefore, even in relation to the same topic studied, researchers may come to construct meaning in different ways. The process of meaning construction is a dynamic ongoing phenomenon, with a social origin within all cultures and describes the mechanism for human behaviour (Crotty, 2003; Cresswell, 2009).

Guba and Lincoln (1994) claim that ontological constructivism research has three characteristics: relativist, transactional and subjectivist. The relativist trait indicates that "*there is no objective truth to be known*" (Hugly and Sayward, 1987, p278) and so the world can be described through a diversity of interpretations. The transactional trait sees the truth as resulting from the interaction between elements of a rhetorical situation (Berlin, 1987), and is the product of these interactions and the person's points of view 'constructed realities'. The subjectivist trait sees the world as puzzling and the researcher's role is to create a model of the world from its perspective (Ratner, 2008).

Berger and Luckman (1991) define the social construction of reality as one's encounter of its social and cultural world with its historical and biographical trait. This premise is exemplified by one being born at a certain time in history into a particular physical world, with its own social cultural meaning. In consequence, one grows to develop a defined view of the world, thus becoming the generalised other of society (Meltzer, 1972). Social psychologists regard the social construction of reality as the true reality in which humans function. In this view, the meaningful reality or knowledge is reliant on human practices, being constructed through human's interaction with their world, which then is transmitted within the social context (Crotty, 2003; Cresswell, 2009). Therefore, the researcher working from a constructionist perspective aims to understand people's interpretations of reality within their social and cultural contexts. For this purpose, the researcher will usually provide details about the participants in the case study in relation to their background and the contexts (Mertens, 1998). Moreover, the researcher places great importance on the participants' role in interpreting the results of its research due to their vital part in the events and situations explored.

The constructionist-based research uses a range of methodologies and methods, though the literature shows that there is a bias towards qualitative methods (Wiersma, 1991, Tam, 2000). To ensure an impartial view, the researcher usually employs triangulation, which

"*involves the use of multiple methods and multiple data sources to support the strength of interpretations and conclusions*" (Mertens, 1998, p354) (see 'Triangulation' section below). The data collection methods include questionnaire, interviews, observations, and the review of various documentation. In presenting the findings, the researcher quotes participants who took part in the case studies to support the data analysis (Wiersma, 1991; Stainback and Stainback, 1984). According to Mertens (1998, p11) "*reality is socially constructed*" thus this research applies constructivism ontology with certainty, and maintains its reservation towards the objectivistic and subjectivist approaches.

Epistemology is the second perspective in the theoretical framework of the research strategy and it refers to "*the theory of knowledge*". It is about "*how we know what we know*" (Crotty, 2003, p8) or "*the nature of the relationship between the knower or would-be knower and what can be known*" (Guba and Lincoln, 1994, p201). Epistemology is concerned with what kind of knowledge is achievable and how we ensure it is acceptable and authentic (Maynard, 1994). This view frames the researcher's interaction with what is to be investigated and it also depends on the ontological perspective. This philosophical approach influences every phase of the research process, including the choice of topic, question, method, sampling, and research design (Crotty, 2003; Gray, 2009). It is related to ontology, "*the study of being*" (Crotty, 2003, p10) or "*the nature of reality*" (Lincoln and Guba, 1985, p37) in which the researcher's ontological stance triggers a particular epistemological stance. Crotty (2003) sees this relationship as complementary and exemplifies it with the ontological idea of realism, which claims that reality exists outside of the mind, and meaning (epistemological objectivism) exists in objects independent of any consciousness thus when one stance is adopted, so its complement.

Epistemology has three distinct perspectives: positivism, interpretivism and critical postmodernism (Gephart, 1999) and are the preferred paradigms in social sciences studies. To justify the

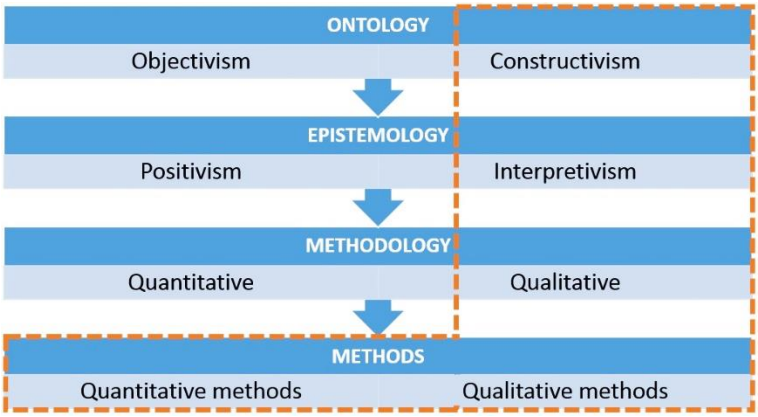
preference for the interpretivism approach, it is appropriate to succinctly summarise it. The interpretivism approach has its origins in the sociology of Weber, who placed "*the study of society in the context of human beings acting and interacting*" (Crotty, 2003, p68). From this perspective, people are regarded as interacting socially with each other and as a result developing the frame of the society and its cultural aspect (Blumer, 1986; Congalton and Daniel, 1976). But by doing so, society also forms the person as Charon states "*[society is] central to forming what the human being is*" (Charon, 2001, p200).

Interpretive researchers view reality as the subjective experience of people with the external world and adopt the ontological belief that reality is socially constructed, thus there is no single right method to knowledge (Willis, 1995). Walsham (1993) argues that theories should be evaluated according to how appealing they are to the researcher and to those interested in the same topics. Interpretivists believe that knowledge and meaning depend on interpretation, so there is no objective knowledge independent of people's reasoning (Gephart, 1999). Moreover, interpretive researchers argue that access to reality can only be given through "*social constructions such as language, consciousness and shared meanings*" (Myers, 2009, p38). Interpretive paradigm uses observation to collect information, and interpretation to give meaning to the observed information (Aikenhead, 1997). Interpretivism approach attempts to understand events through the meanings researchers give them (Deetz, 1996). It uses meaning-oriented methodologies like interviewing and participant observation, and depends on a subjective rapport between the researcher and participants (Reeves and Hedberg, 2003). The aim of interpretivists is not to invent new theories, but to evaluate and improve interpretive theories.

In constructivist research, the usual distinctions between the ontological and epistemological stances disappear as the researcher and the topic of investigation are interdependent and that the 'findings' are literally created as the research progresses (Lincoln and Guba,

1985). At the ontological and epistemological levels, this research adopts the constructivist interpretivist approach. The methodology employed is qualitative case study and the data collection is quantitative and qualitative (Figure 3.1).

Figure 3.1: Adopted research paradigms



There are three main reasons why these paradigms have been chosen for this research. First, they allowed me to construct meaning through studying people's activities in their natural state without my intervention, while asking questions like 'why' and 'how'. This was based on the idea that people actively construct their world, and that situations must be investigated through the eyes of the participants, rather than those of the researcher. As a Cairo resident and having an architectural and urban planning background, I deemed it appropriate to conduct the information collection within my native city. Data analysis was drawn from the reconstruction of the multiple realities that existed at the time the information was collected and considers the temporal and contextual nature of the information collected from an ever-changing city.

3.2.2. Methodology

Methodology comes originally from modern Latin 'methodologia' and later on transmitted to French as 'méthodologie' is the systematic and theoretical analysis of the methods applied to a field of study. Although used interchangeably, the research methodology does not aim to provide solutions as opposed to the research methods; instead

provides the theoretical framework for understanding which methods can be applied to specific events. It is the strategic approach, rather than the techniques and data analysis (Wainright, 1997) and "*links the choice and use of methods to the desired outcomes*" (Crotty, 2003, p3). The methods described in the methodology explain the means of data collection or how the results ought to be calculated (Howell, 2013) thus is essential "*to find a method which is compatible with the kind of thing [one is] trying to investigate*" (Mackay, 1993, p300). The research methodology is the bond between the philosophical stance (ontology and epistemology) and method (tool).

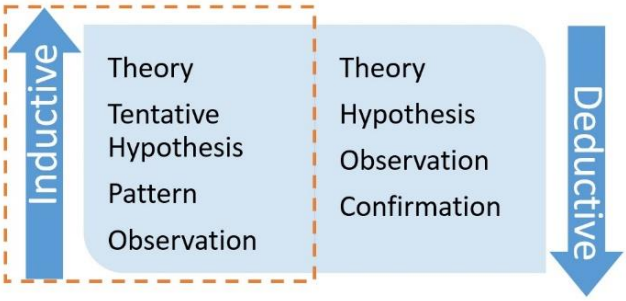
The methodology explains the author's philosophical approach to research methods and data collection (Hussey and Hussey, 1997). It represents not only the methods used to collect data but also the theoretical foundation of the project which guides the research. Methodology implies the what, why, where and how you collect and analyse data (Hussey and Hussey, 1997).

Every research paper contains a substantial text on research methodology. It is the methodology that leads the research process, bringing the topic to life through the collection of data (Riley *et al*., 2000). However, careful consideration must be paid when deciding on the research methods, as not all methods are relevant or practical within the research topics (Sarantakos, 2005). When embarking on a research project, the research will have to undertake various challenges – defining the research topic, understanding the methodology, and applying the research methods (Riley *et al*., 2000). This complex process can often alter the initial proposed research topic. The methodology must reflect the research theories, which are also referred to as philosophies. This implies that methodologies can be roughly categorised under either positivistic (quantitative) or phenomenological (qualitative) paradigms (Hussey and Hussey, 1997).

Based on the adopted research paradigms - constructivism (at ontological level) and interpretivism (at epistemological level), the methodology that best suits is qualitative, with a combination of qualitative and quantitative methods of data collection. The qualitative research is naturalistic as it aims to study the daily life of diverse groups of people and communities in their natural setting, thus especially useful when studying the housing mechanism (Denzin and Lincoln, 2003). Qualitative research helps discovering issues about the event under investigation when there is little known about that particular event. Moreover, through qualitative research, people and their social and cultural contexts are understood (Myers, 2009) and the intricacies of these worlds-under-study to be interpreted (Philip, 1998).

In qualitative research the data sources include observation, interviews and questionnaires, texts and documents, alongside the researcher's impressions and reactions (Myers, 2009). A main difference between qualitative and quantitative research is the method of data collection, analysis and interpretation. While qualitative research presents data in form of a descriptive account trying to understand the phenomena in its natural setting, quantitative research presents statistical results in form of numerical data. Additionally, Stake (1995) notes three key contrasts in the qualitative as opposed to quantitative research in terms of the role of the researcher (personal and impersonal), purpose of inquiry (explanation and understanding), and knowledge (discovered and constructed). Another distinction between the two is that qualitative research is inductive while quantitative research is deductive (Gray, 2009). Also, in qualitative research there is no need for a hypothesis to begin the research as it uses inductive data analysis to explain the interacting realities and experiences of the researcher and participant (Lincoln and Guba, 1985). Trochim and Donnelly (2006) illustrate the inductive and deductive reasoning approaches (Figure 3.2).

Figure 3.2: Inductive and deductive approaches



According to Lincoln and Guba (1985), the main limitation of qualitative research is the researcher's subjectivity. Thus, researchers opting for this methodology must identify their *"biases, motivations, interests or perspectives*" (ibid, p290) made clear throughout the study. Other disadvantages of qualitative research have been related to the design of a study and data collection which can be influenced by the researcher's bias, unreliable sources or participants, missing background information, underrepresented larger population, biased analysis of observations, and the researcher's impact on the study group (Thomas, 2010).

Merriam (1985) defends qualitative research methodologies, stating that the focus on evaluating the research should be whether is 'credible and confirmable' as opposed to its generalisability characteristic offered by the statistical, quantitative research. The limitations of using the qualitative research methodology are discussed below in the 'Validity, Reliability and Triangulation' section.

In choosing the research methodology, Guba (1981, p76) suggests that "*it is proper to select that paradigm whose assumptions are best met by* [the] *phenomenon being investigated*". The fundamental aim of this study focuses on observing, investigating and documenting in detail shelter ownership experiences of Cairo's residents in relation to the housing policy. This approach has allowed me to account the views of different stakeholders alongside the governmental perspective of complex housing ownership mechanisms in Cairo. The qualitative research approach followed by the inductive analysis of data has proved to be the most appropriate methodology for the purpose of this

research because it has provided a holistic view upon the whole housing process and associated mechanisms. However, it has to be noted that the study findings are to be applied to Cairo and is left for future studies to test whether they can be generalised to other geographical contexts.

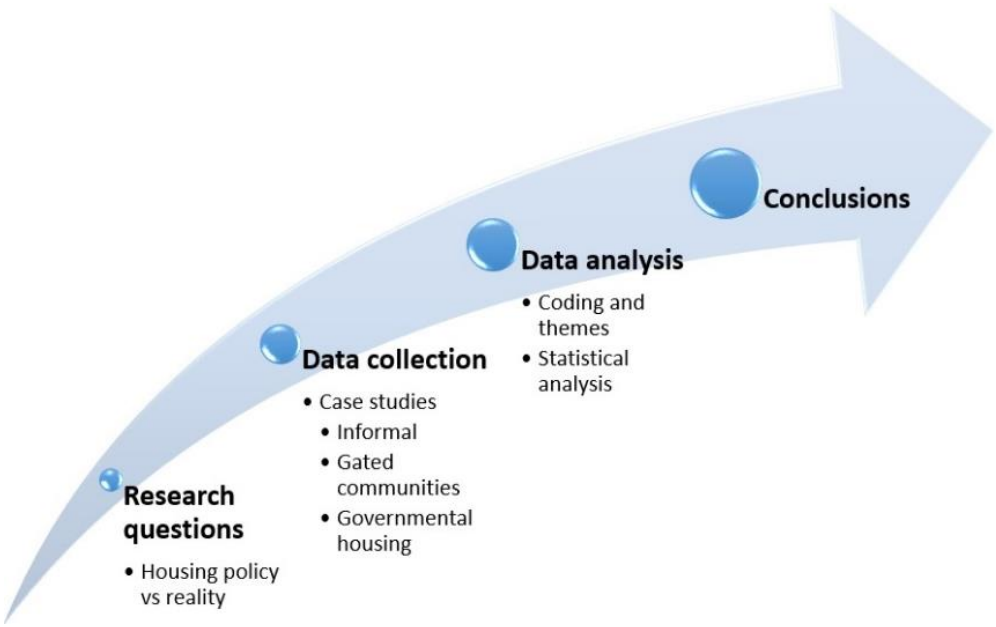
3.2.3. Research design

"You have your way. I have my way. As for the right way, the correct way, and the only way, it does not exist." (Nietzsche, 1997, p155)

Research design is the plan that depicts how the study is to be conducted (Figure 3.3). Mouton (1996, p175) affirms that the role of the research design is to "*plan, structure and execute*" the study to augment the "*validity of the findings*". A further definition given by Yin (2003, p19) states that "*a research design is an action plan for getting from here to there, where 'here' may be defined as the initial set of questions to be answered and 'there' is some set of (conclusions) answers*".

Thus, the research design explains how all parts of the study connect in order to tackle the research questions. To be noted that a research design is not just an action plan that details what needs to be done to complete the project. The action plan emerges from the research design, being a part of it. For example, before one can develop a work plan, an architect should first establish the residents' needs and the type of building required. The work plan will then emerge from this. Likewise, in social research, the data collection methods (e.g. document analysis, observation, and questionnaires), sampling, and questions design are all dependent on 'What evidence needs to be collected?' A well-developed design clearly identifies the research problem and justifies the design choice, reviews previously published literature associated with the topic under investigation, states the research questions, describes how the data will be collected; and defines the analysis techniques to be applied in interpreting the findings of the case study (de Vaus, 2001) (Figure 3.3).

Figure 3.3: Research design



In social studies, there are two essential types of research questions asked: 'what is happening' (question applied to descriptive research) and 'why is happening' (question applied to explanatory research)? In order to answer the research questions, this study has combined two of the research purposes - descriptive and explanatory, and essentially analysed through qualitative methods with a lesser quantitative component.

Although descriptive research has been claimed to be '*mere description*' in the relevant literature, it is undoubtedly a key instrument in the research process as it adds to our knowledge of the society (de Vaus, 2001). Descriptive research includes most of the governmental studies concerned with the population census, and social and economic indicators. Descriptions can be abstract or concrete. For the purpose of this study, concrete descriptive research has been succinctly utilised to describe the historical development of housing in Cairo, and land supply mechanisms in informal areas and gated communities. The descriptive research type was employed when illustrating research questions like 'What are the differences between housing policies and reality?' Moreover, the descriptive research triggers the 'why' questions of the explanatory research (de Vaus,

2001; Mills, 2000). For instance, when it has been revealed that a high percentage of Cairo's residents live in informal areas, the resulting question occurred 'Why is it happening?' or 'Why do most Cairenes reside in informal areas?'

Explanatory research is based on 'why and how' questions like 'How do housing policies regulate housing mechanisms in Cairo?', 'How do the new cities perform in relation to mitigating the housing crisis in Cairo?' It is defined as an attempt to link ideas in order to understand what is going on by looking at how things interact. Explanatory research or causal research is the investigation of cause-and-effect relationships thus a complex type of analysis and the researcher must be alert to other factors that could influence the causal relationship, particularly if dealing with people's attitudes and motivations (Zikmund, 1984; Brains *et al*., 2011).

It is widely agreed that there is no single best methodology or data collection method. Robson (1993) names three traditional research methodologies – surveys, case studies and experimental studies. According to Tull and Albaum (1973), survey research is the science of asking questions and observing behaviour to gather information. Case studies focus on studying cases in depth, while experimental studies measure under systematic and controlled conditions causal relationships (Sarantakos, 2005). A case study is an in-depth analysis of a particular research topic rather than a statistical survey or comparative study. It is a valuable design to be applied when not much is known about a topic or phenomenon (Stake, 1995; Anastas, 1999; Yin, 2014; Gerring, 2004; Mills *et al*., 2010). This research has adopted the case study design which seems to be the most appropriate for the research purpose.

3.2.4. Case study

Case study research is an approach in which the researcher examines either single or multiple cases through a detailed analysis, collecting data over a period of time, to determine one or more events or

processes (Stake, 1995; 2006). A case study could be acknowledged as a comprehensive research strategy, strategy of inquiry, or simply methodology determined by time and place (Yin, 2014; Cresswell, 2013). As part of the investigation, multiple research methods are used: observations, interviews, reports and documents from official meetings. The advantage of the case study approach is that it explores in detail the given situation (Denscombe, 2014).

Gillham (2000) claims the case study is a way to answer the research questions while using data from the case settings. Yin (2003) defines the case study as an empirical investigation of a phenomenon within its actual context and particularly useful when the researcher has no control over it. According to McMillan and Schumacher (2001), a case study examines in detail a phenomenon over a period of time, while using various sources of data found in the setting and collated to answer the research question(s). In view of the research question and the interpretive stance adopted in this research, the case study methodology was regarded as the most suitable approach due to its systematic way of collecting and analysing data, and interpreting the findings. Moreover, the case study approach allowed for a combination of data collection methods (qualitative and quantitative) to be selected aiming to provide a more complete picture.

An important distinction to be made here is that a case study is not a data-collection method, but a methodological approach that integrates a number of data-collection tools (Hamel *et al*., 1993). Case studies can have as their focus an individual, a group, or an entire community and can apply a number of data-collection tools like oral and written histories, documents, participant observation, and in-depth interviews (Berg, 2013; Yin, 2014). According to Merriam (1998), case studies have four main features: particularistic, descriptive, heuristic, and inductive. Particularistic describes one event, situation or process that is the focus of the research. Descriptive implies a wide set of details portraying the studied phenomena. Both characteristics are heuristic because they deepen the understanding of the phenomena, while

inductive represents a form of reasoning used to define generalisations or concepts that develop from the data.

Tellis (1997) states that case studies do not claim to be representative, but to emphasize what can be understood from a single case. In other words, "*not to prove but to improve*" (Stufflebeam *et al*., 2000, p283). Hitchcock and Hughes (1995) describe case studies as having certain properties: chronological narrative of events relevant to the case, extensive descriptions of events and their analysis, and relating participants' perceptions of events. Stake (1994; 1995) classifies the case studies into three different types: intrinsic, instrumental, and collective. For the purposes of this study, intrinsic case studies are conducted because they allow the researcher to better understand intrinsic aspects of a specific event and not to test or develop an abstract theory. This type of case study investigates a particular event or phenomenon – housing ownership mechanisms in Cairo – for its own sake, and there is no expectation that results have implications for other case studies.

In developing the framework for the case study designs, Yin (2003) recommends the following elements: study questions ('how' and 'why' considerations); study hypothesis or purpose guiding the theoretical framework; naming of the unit(s) of analysis (housing ownership mechanisms in Cairo); linking the collected data to test the hypothesis (if available); and the criterion for analysing the findings. For the research purpose, the single case study (Cairo) was selected in order to exemplify three types of the housing contexts in Cairo (i.e. public housing, gated communities, and informal housing) within six sub-units.

The case study is used to support the qualitative methodology by permitting me "*to retain the holistic and meaningful characteristics of real-life events"* (Yin, 2014, p2), thus understanding the urban phenomena. It is a historical account of events from the perspective of direct observation. In this research, the case study framework was

used to enable in-depth research based on investigation of a specific place, with the purpose of understanding the complex ‘real-life’ events and correlating these to theoretical interpretations. This study explores formal and informal housing in Cairo in order to understand the specific housing ownership mechanisms that may help narrowing the gap between policy and reality. This study does not aim to generalise statements about urban formal and informal settlements, but to analytically investigate the gap between urban policy and the reality of urban process in obtaining a shelter, and offer recommendations on how to narrow the gap.

Case study framework

The chosen case study deals with understanding a place – Cairo – in terms of housing ownership mechanisms. The idea of place, seen as a process through which the physical setting (e.g. houses, roads, infrastructure, and landscape) is the product of its residents’ activities. Three different approaches have been used in investigating urban settlements – phenomenological, social constructionist and dynamic approaches (Cresswell, 2004; Warnaby and Medway, 2013; Kavaratzis and Hatch, 2013).

Spatial phenomenology represents a methodological perspective that highlights the human dimension of place, thus presenting a suitable analytical focus on lived experience, which in the setting of urban settlements can be used to emphasise the perspectives and activities of residents. The social constructionist approaches considered here present a more analytical account of power and place, in terms of locating places within complex networks of power relations described by domination and resistance, instead of eliminating the concept of power. The dynamic approaches regard places as always changeable as opposed to the spatial phenomenology that sees urban places as static – either ‘formal’ or ‘informal’. This view of place as dynamic also highlights the element of constant construction in urban settlements

(Agnew, 1987; Cresswell, 2004, Cresswell and Hoskins, 2008; Pred, 1984).

These three geographical approaches can be grouped as aspects of 'place-making', an analytical view that perceives urban settlements as places resulting from the human action, interaction and urban policy in the context of power (Lombard, 2014, Cresswell, 2009). For example, informal settlements have been described as "*conceptually complex and methodologically elusive"* (UN-Habitat, 2006, p27). This conceptualisation comes in agreement with the academic literature which describes informal settlements as "*DIY housing* [with] *inadequate services* [are contributing to a] *gradual improvement of the neighbourhoods through formation of local committees*" (Everett, 2001, p457).

Seeing informal housing as a process of active involvement of its residents in building their own shelter facilitates the understanding of the struggle that goes into the construction of these places, which is often concealed or undervalued (Bayat, 2013, Soliman, 2002; Gilbert and Gugler, 1992). This perception also implies a view of urban informal settlements as creative places which are the outcomes of social practices (Arandel and Elbatran, 1997). Furthermore, the idea of place as a work in progress appears to correspond with residents' own hopes that their locality will eventually benefit from formal services, appropriate recognition within the city through 'consolidation'. This, however, does not imply an end goal but rather a place in continuous development.

Informal settlements are often not known about and/or are ignored by the rest of the city, especially at the official level. Like many cities, Cairo is spatially and socially segregated between the urban rich living in luxurious 'gated communities' and the urban poor dwelling in the unplanned and unserviced slums. The city's segregation is not only a theoretical or conceptual matter – it is reality for the residents. Talks of housing are usually under a dualist conception of 'formal/ informal'

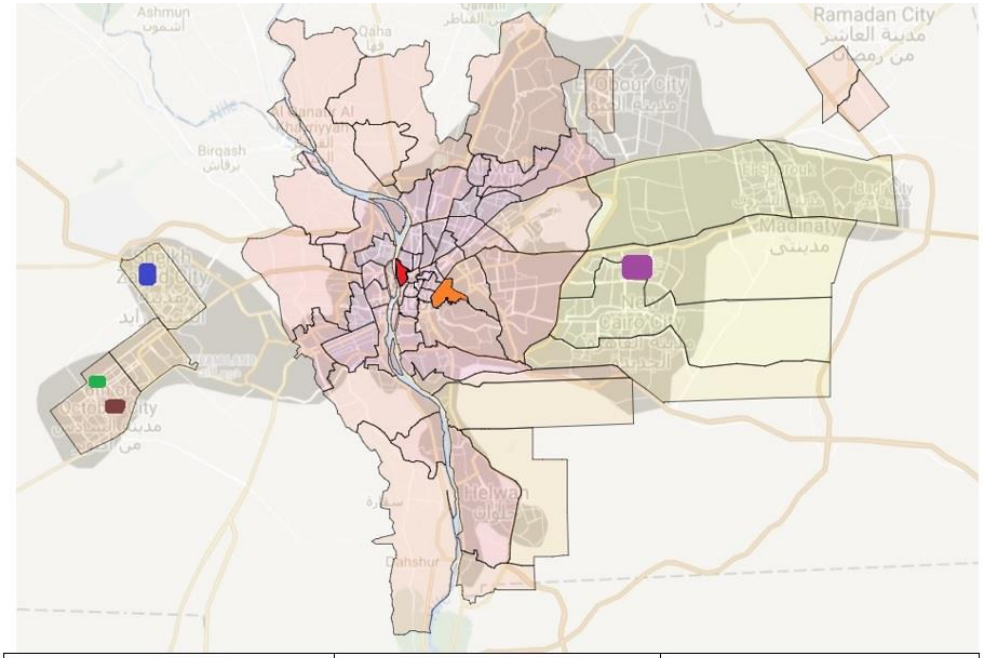
particularly in terms of urban policy, seeing urban informal settlements as static categorisations – fuelling the segregation view (Abdelmonem, 2016). Another way in which the city is being portrayed highlights social processes. This view perceives informal settlements as 'ordinary places' rather than being isolated or dysfunctional. The aim is not to contextualise the three selected urban housing settlements (i.e. informal settlements, gated communities, governmental housing programmes) but to explore their intricacy as places and to emphasise the residents' living experiences, in order to address some of housing policies problematic issues.

Reviewing the literature, it has been highlighted that there is a gap between the housing policies and the housing ownership mechanisms. Furthermore, Cairo's urban development lacks public participation from all the stakeholders within the housing system. Consequently, there is a need to assess the housing policies in terms of formal and informal areas. Recommendations based on the findings of the fieldwork research aim to help developing the housing policies and raise the awareness of urban sustainability, thus improving access to housing for all residents and in particular low- and moderate-income households. The research aims to understand Cairo's housing ownership mechanisms from the residents' 'bottom up' and the government's 'top down' perspectives to tell the story of Cairo's housing ownership. To contribute to the understanding of acquiring shelter in Cairo, methods such as semi-structured interviews, structured questionnaires, and non-participant observation had been used. To strengthen the research validity and reliability, this study employs triangulation by combining multiple methods and measures (Perlesz and Lindsay, 2003).

The case study includes six out of sixty-eight districts (CAPMAS, 2016) which have been selected to represent three categories of housing settlements in relation to the housing policies in Greater Cairo (Figure 3.4). The six districts selected for the case study have been equally shared between the informal settlements, governmental housing

programmes built in the satellite cities, and gated communities in Greater Cairo, to whom two case studies have been allocated to each urban type (see Chapters 7 and 8).

Figure 3.4: Case studies location within Greater Cairo



Informal housing		Governmental housing programmes		Gated communities	
	Maspero Triangle		Mubarak Youth		Beverly Hills
	Manshiat Naser		Future Housing		Elrehab

The eight-months (April - December 2015) of empirical fieldwork in Cairo were supported by the bibliographic material available in the libraries of the Egyptian universities such as Cairo University and American University in Cairo (AUC), and access to urban studies of Cairo by the World Bank, the United States Agency for International Development (USAID), UN-Habitat, Ministry of Housing, Utilities and Urban Communities (MHUUC), Informal Settlement Development Fund (ISDF), General Organization for Physical Planning (GOPP), Centre d'Études et de Documentation Économiques, Juridiques et Sociales [Centre for Economic, Legal and Social Studies and Documentation] (CEDEJ), Deutsche Gesellschaft für Internationale Zusammenarbeit [the German government's international co-operation agency] (GIZ) in Cairo, and New Urban Communities Authority (NUCA). At the same time, close observation of the relevant

topics through reports, newspapers and media has ensured the study was kept up to date with the ongoing discussions and decisions regarding housing in Cairo.

The research was substantiated by the eight months' fieldwork dedicated to analysing the case studies, targeting housing stakeholders (state officials, NGOs, civil society, professionals, academics, and residents). The areas were studied in parallel, according to how the situations progressed during the uncertain times of the socio-political unrest. The fieldwork was also devoted to analysing the local literature, dossiers and reports concerning housing ownership in Cairo. In fact, as discovered during the fieldwork, most of the relevant published material is still not available in the United Kingdom; moreover, contacts with some of the mentioned organisations had proved to be very useful in terms of getting a chance to access an impressive data and resources, especially the unpublished (even in Egypt) sources. All these helped me understand how the housing process is being run in Cairo.

According to Madbouly, the Minister of Housing, the informal settlements occupy more than 50% of Cairo's surface area, where around 60% of Cairo's residents live (GIZ, 2009a). This has resulted in different typologies of informal settlements across the capital (see Figure 7.1). The informal settlements have been selected to address diversity. In an approach to deal with the high percentage of informal areas in Cairo, the New Cities strategy was designed to attract low- and middle-income residents. This strategy was mainly supported by the governmental housing programmes which aimed to reduce the urban growth on agricultural land and to solve the housing problems in Cairo. The two gated communities' case studies represent the change in the government's focus from trying to accommodate the low- and middle-income residents to accommodating the rich in the New Cities. The case studies investigating the governmental housing programmes and gated communities were employed to answer the

research question 'How do the New Cities perform in relation to mitigate the housing issue in Cairo?'

The determinant factors of selection that have been applied to the six case studies are outlined in Figure 3.5. In order to reinforce the study findings and maximise research reliability, two similar governmental housing programmes and gated communities have been chosen for the purposes of this research.

Figure 3.5: Case-studies selection factors

Informal areas		
Determinant factors of selection	**Manshiat Naser**	**Maspero Triangle**
Location	Outer Cairo (at the time of establishment)	Inner Cairo
Establishment time	1950s	18th century
Area (Km^2)	7.9	$0.35Km^2$
Land tenure	State-owned desert	Privately-owned agricultural
Population (CAPMAS, 2006)	262,050	11,722
Classification	Unplanned and unsafe	Unsafe
Development consideration	Received local and international investment.	Limited local and international attention until 2015.
Governmental housing programmes		
Determinant factors of selection	**Mubarak Youth Programme**	**Future Housing Programme**
Location	6th of October	6th of October
Establishment time	1995	1998
Unit area (m^2)	100, 70 , 63	63
Number of units	74,433	15,636
Design models	12	2
Unit cost (LE)	40,000	28,500
State subsidy (LE)	15,000	10,000
Gated communities		
Determinant factors of selection	**Beverly Hills**	**Elrehab**
Location	Elsheikh Zayed	New Cairo
Establishment time	2002	1997
Area (Km^2)	1.75	10
Developer	SODIC	Talaat Mostafa Company
Targeted social class	High-income	High- and middle-income

The main reasons why these two particular areas, Manshiat Naser and Maspero Triangle, have been selected is their differences in terms of land tenure (state-owned desert vs privately-owned agricultural), time, location, size, population, and development consideration (attention vs neglect). Manshiat Naser was built in the 1950s on state-owned desert

land outside Cairo, whereas Maspero Triangle was built in the 18th century on private agricultural land inside Cairo. According to the Egyptian population census in 2006, the first area had a population 22 times greater than the second. Manshiat Naser has received considerable local and international investment, whereas Maspero Triangle had received limited local and international attentions until 2015, when the state targeted the area for redevelopment by an international firm. The first area is classified as unplanned and some parts as unsafe, while the second is classified as an entirely unsafe area (Personal interview with O4). Both informal areas form part of Cairo's master plan 2050 redevelopment scheme.

The two governmental housing programmes have been chosen as case studies because they were the first housing programmes (see Chapter 5). Both governmental housing programmes are located in 6th October, which is located 38km west of Greater Cairo. The housing units were built almost 20 years ago, thus enough time has passed to test their efficiency in accordance with the purpose of their establishment. 6th October City was founded in 1979 and is part of the first generation of new cities established to attract population from overcrowded Cairo, planned only by Egyptian experts under the guidance of GOPP. The city is semi-independent, having an economic base that aims to provide job opportunities for 80% of its inhabitants (Personal interview with O14) (see Chapter 7). It is the second most successful new town in terms of population – 157,000 residents recorded in the 2006 census (CAPMAS, 2008b) and 1.5 million residents in 2016 according to NUCA (2016c).

The two gated communities selected as part of the case studies in this research are Beverly Hills and Elrehab. Beverly Hills is a high-cost residential gated community meant for the urban elite, while Elrehab is a medium-cost residential subdivision targeting the middle-income groups. The name of the first residential area – Beverly Hills – resembles the luxurious American city, whereas the second, Elrehab, is translated from Arabic as 'spaciousness'. Both were among the first

and largest gated communities in Greater Cairo and have good reputations on the real-estate market because of their post-implementation success. As both gated communities are located in the same region of Greater Cairo, targeting the same high-income groups and underwent similar development stages, quality of implementation and post-implementation management, their analyses were combined in order to avoid repetition.

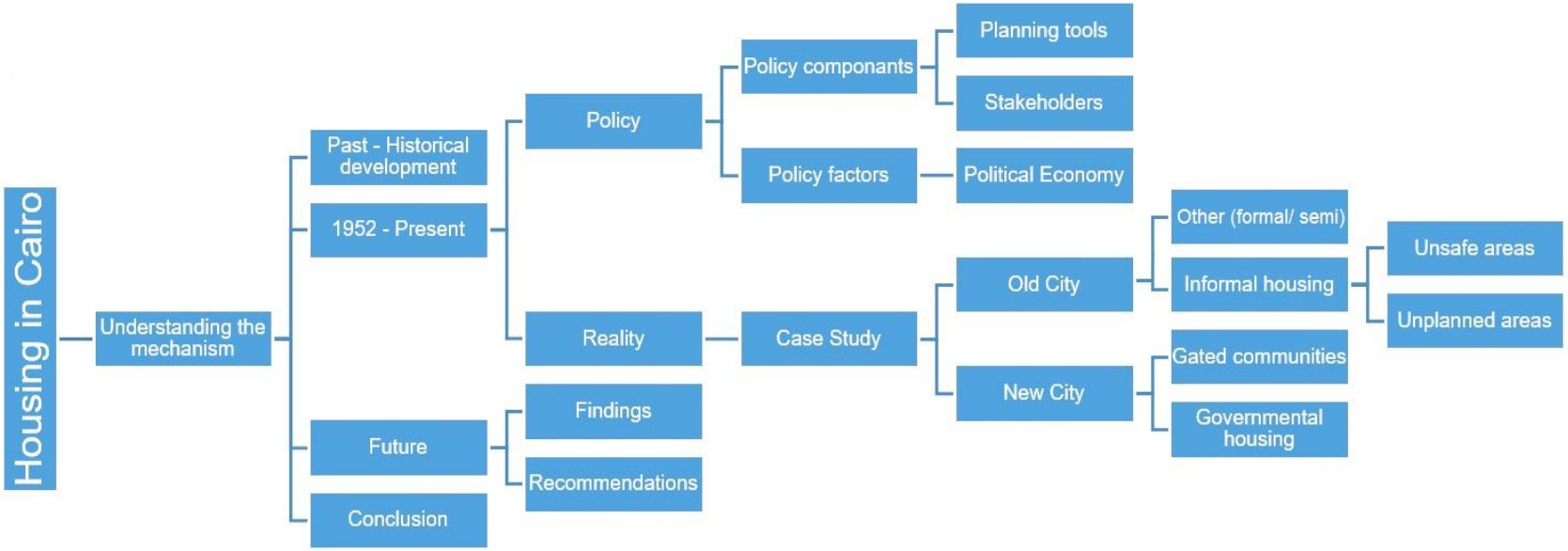
For the purpose of this study, the presented framework has been developed to guide answering the research questions from justifying the ontological and epistemological philosophical approaches, to adopting the appropriate methodology and its relevant data-collection methods, to selecting the research participants, and analysing the findings to answer the study questions (Figure 3.6).

With the aim of understanding housing ownership mechanisms in Cairo, five key questions have been posed (see Chapter 1). In order to grasp the present, an intrusion in the past has had to be made, looking at the urban development of Cairo throughout history (see Chapter 4 and Appendix B).

Next, from the political economy perspective since 1952, housing policies have been scrutinised to show its impact on the housing mechanisms in Cairo. With the aim of understanding how policies regulate housing dynamics in Cairo (top-down approach), the following components of housing policies have been examined: the structure of central and local government, housing programmes, urban planning tools, and the roles of the stakeholders (see Chapters 5 and 6, and Appendix C). With the intention of understanding why most Cairenes reside in informal areas, a bottom-up approach has been utilised to assess how the housing ownership mechanisms operates in reality. By exploring the reality of the housing problem in Cairo, the study reveals how the New Cities perform in relation to this issue (see Chapters 7 and 8, and Appendix D).

Once the housing policies and their application on reality have been studied, the differences between housing policies and reality have been uncovered. Based on the case studies analysis, the recommendations to help narrowing the gap between policies and reality have been offered. The conclusion of the research study illustrates Cairo's 'journey' to sustainability, where sustainability is seen as a list of steps or components (e.g. housing, transport, infrastructure) that need to be analysed and understood at an independent level in order to reach the ultimate goal – sustainable development. This research has studied housing as a tool of working towards achieving sustainability and the recommendations provided in the concluding chapter are designed to mitigate the housing issues, thus directly impacting on the process of reaching urban sustainability. Further studies will be needed to help building the picture of Cairo's urban sustainability, to which this study contributes in terms of housing mechanisms, and once all the pieces are fit together, that would support walking the 'steps' that lead to a sustainable development in Cairo, thus a better urban management that meets the residents' needs.

Figure 3.6: Research design framework



3.2.5. Research methods

Crotty describes research methods as "*the techniques or procedures used to gather or analyse data related to some research question or hypothesis*" (Crotty, 2003, p3). Myers (2009) defines the research methods as a plan of investigation, starting with a fundamental question that leads to drafting the research design and it ends with the data collection. Research methods have been most commonly classified into qualitative and quantitative. At the methodological level, qualitative and quantitative refers to distinctions about how one goes about finding out knowledge and how one carries out the research. At the research methods level, qualitative and quantitative refers to the way in which data are collected and analysed, and the type of generalisations and representations derived from the data (see 'Research paradigms' section above). Rodwell (1998) explains that although it is not possible to possess both positivism and interpretivism assumptions about inquiry at the epistemological level, it is however possible to conduct both qualitative and/or quantitative research at the methodological level. Various research methods could be adopted to suit a particular methodology; nonetheless, some may prove more appropriate than others when adhering to the methodology's underlying theoretical perspective (Crotty, 2003; Rodwell, 1998).

Harding (1987) claims that all evidence-gathering techniques could be classified under three main categories: listening to (or interrogating) participants, observing participants' actions, or examining historical and/or official records. According to Denscombe (2014), there are four main methods that a social researcher can use: documents, questionnaires, interviews, and observation. Each method can be used as a tool to collect empirical data helping the researcher gain a clearer representation of phenomena, to provide an accurate measurement of facts and to offer evidence about the subject matter. However, before selecting and utilising any of these tools, it is essential to reflect upon these five points (ibid): First, although some

research strategies have been related to particular research methods, they do not dismiss the possibility of choice. Second, every method has its advantages and disadvantages. Third, 'usefulness' should be the criterion by which researchers choose their method. Fourth, research methods should not be considered as mutually exclusive. Fifth, using a combination of methods allows the researcher to check the results through triangulation (see ‘Triangulation’ section below). Therefore, combining different methods compares and contrasts the topic researched from various perspectives.

This section describes the quantitative and qualitative methods used in the fieldwork. Babbie (2013) defines quantitative methods as measurements collected through questionnaires, surveys, and polls which are analysed in statistical or mathematical form. Qualitative methods are means of data collection focusing on describing meaning, instead of making statistical inferences (Patton, 2002; Denzin and Lincoln, 2004). Both methods were used to generalise and explain the practices of residents in securing shelter in three of the housing types in Cairo.

During the fieldtrip, quantitative structured questionnaires were administered to a sample of residents of the selected districts with the purpose of gathering information regarding their lived experiences (bottom up), and qualitative semi-structured interviews carried out with professionals, academics, NGOs and governmental representatives (top down). These two methods were initially tested on a small sample (pilot study) with the aim of receiving feedback regarding the ease of understanding of both questionnaire and interviews, and to identify if there is a need to rephrase the questions (explained below). Thus, testing provided useful information in regards to the wording and timing of these methods. Moreover, to evidence the residents' use of the built environment concerning the housing policy, and to triangulate the data collection, non-participant observation (photographs, sketches and notes) were used. The focus group method was initially considered, however due to the conflict in the city at the time of the fieldwork, the

idea of a focus group seemed to cause real concern to the residents I approached. They explained that when a group of people gather in one place, under the prevailing political circumstances, it could be misinterpreted to the extent of being considered by the authorities as planning for a revolt, taking into consideration the 'Protesting Law No. 107 of 2013' and 'The Emergency Law No. 162 of 2013' in Egypt. After the residents showed themselves to be quite apprehensive towards the focus group activity, it had to be discarded. The aim of combining these quantitative and qualitative methods was to understand and analyse the gap that exists between urban policies and the lived realities in Cairo's housing process.

To meet the research objectives, the research methods adopted include analysis of existing data and collection of new data, as well as making use of my knowledge and experience as an Egyptian urban planner and architect. By using a variety of sources – primary and secondary – the researchers feel more empowered when drafting the data analysis and providing final recommendations (Saunders *et al*., 2000). Throughout this section, the reliability, validity, ethical considerations and limitations of the research have been discussed.

a) Questionnaires

The questionnaire is one of the most-used primary data collection research methods that incorporates all techniques of data collection (Saunders *et al*., 2000; Robson, 1993). In a questionnaire, the participants are requested to respond to a pre-arranged set of questions (Oppenheim, 1992; de Vaus, 2001). Concerning evidence collection, questionnaires can be broadly classified into self-completion methods and interviews (Newell, 1993; Laws *et al*., 2013). Yin (2003) suggests that social research, which is about human affairs, benefits from use of questionnaires because they interpret and report from the perspectives of the interviewees. If the questionnaire is designed short and specific (a structured format), it could provide a

framework for collecting standardised answers (Moser and Kalton, 1971; Simon, 2006a; Denscombe, 2014; Bryman, 2004).

The face-to-face structured questionnaire is perhaps one of the best research instruments in housing research offering efficient means of gathering a broad range of information in a quick and relatively cost-effective way, having a high response rate while protecting the respondents' anonymity if required (Frankfort-Nachmias and Nachmias, 2008; Newell, 1993, Yin, 2014; Robertson and McLaughlin, 1996; Marshall and Rossman, 2016). This data collection method has helped to inform researchers about people's everyday struggle when disrupted by private developers and policymakers' actions in the implementation of the housing policy (Frankfort-Nachmias and Nachmias, 1996) (Figure 3.7; see Chapters 7 and 8, and Appendices D and E).

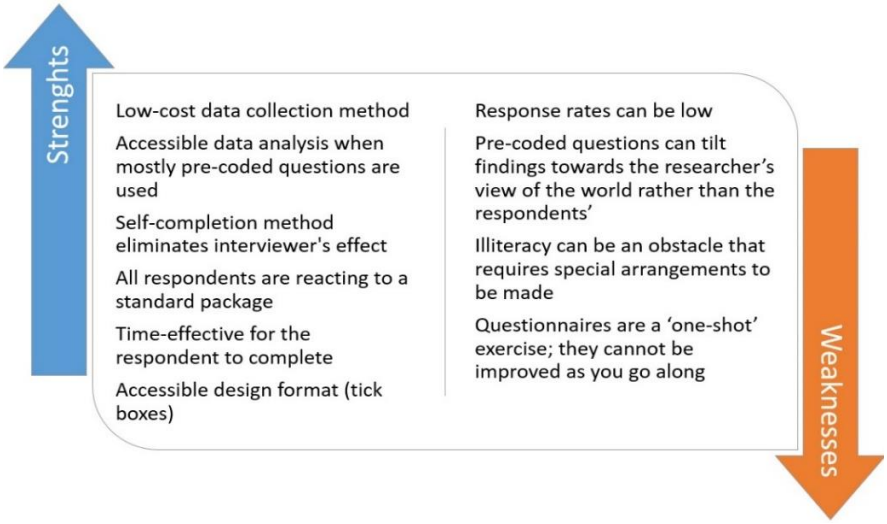
Figure 3.7: Questionnaires characteristics

Criteria	Face-to-face	Mail	Phone	Email
Cost	High	Low	Moderate	Low
Response rate	High	Low	High	Low
Control of interview situation	High	Low	Moderate	Low
Applicability to geographically dispersed populations	Moderate	High	Moderate	High
Applicability to heterogeneous populations	High	Low	High	Low
Collection of detailed information	High	Moderate	Moderate	Moderate
Speed	Low	Low	High	High

Based on Frankfort-Nachmias and Nachmias, 1996

In designing the questionnaire, validity and reliability are at the core of the drafting process (Oppenheim, 1992). Gilbert (2015, p35) adds that "*the validity and reliability of an indicator will depend on the adequacy of the way in which it measures its concept*". Bryman (2004) states that to ensure the questionnaire is reliable, it has to be designed on the basis of an internal check. But since this questionnaire comprises of some attitudinal questions, reliability was ascertained through triangulation, by using other methods. Furthermore, the strengths and weaknesses of questionnaires have been considered (Laws *et al., 2013*) (Figure 3.8).

Figure 3.8: Questionnaire: strengths and weaknesses



Based on Laws et al., 2013

The structured questionnaire used in this research study is productive because a) there is a large number of respondents spread across several locations; b) the required information is reasonably straightforward; c) the text is easily understood; and d) it is a suitable data collection method in Cairo (see Appendix A). The questionnaire contains a mixture of open and closed questions, multiple choices, and Likert scales to answer the research questions. Two precise open-ended questions were asked: one in relation to the housing current situation, aspirations and concerns about Cairo, and the other about attitudes towards housing policy. The questionnaire was supplemented by a covering letter that introduced the researcher and the study undertaken, and the consent form. It also provided the researcher's ethical declaration. The first section includes all personal information containing demographic information and other questions about the stakeholder group, housing details, employment, means of transportation, etc. The second section asked for participants' views about housing policy, housing issues, access to land and shelter, potential for development, housing sustainability and general experience of Cairo. The final section recorded participants' attitudes towards participation in the development of their local area and their views on current housing development interventions in the light of meeting their needs and urban sustainability (see Chapters 7 and 8,

and Appendices A and E). Andrews (1974) considers these attitudinal questions to be "*direct measures of individuals' evaluations of their own well-being*" in the context of 'place image' perception. Under these assumptions, I gave respondents the chance to state any reasons for their perceptions.

The questionnaire data collection method focused on residents' voices as active participants in the place-making process. The questionnaire was translated and re-edited from English to Arabic, and again from Arabic to English at the data analysis stage. In some case, when the participants needed clarification in terms of the meaning of the questions, Egyptian dialect was used as close as possible to the standard Arabic in order to ensure consistency in formulation. The questionnaire was administered by the researcher alone. To identify the participants and ensure equal coverage, a grid was drawn on the map of each area. This grid was divided into squares (10mx10m each square). By identifying the numbers of questionnaires and the number of squares, it helped me distribute the questionnaires needed within each square.

The questionnaire was mostly conducted in a comfortable ambience to allow ease of conversation between the researcher and the participant with the aim of achieving meaningful spontaneous response. Some questionnaires were completed at participants' workplaces - in particular, the daily wage workers in informal areas, after identifying their residence details. A point worth considering is that the questionnaire was applied to the heads of households and not individuals, as they are most commonly the authority figures who dealt with housing issues in general. The respondent's gender was not a main consideration when selecting whom to interview, rather the person who held the appropriate knowledge about the housing ownership mechanisms. The questionnaire was conducted at different times during the day and/or week (mornings and afternoons, weekdays and weekends) to maximize the response rate from various people. It was conducted between April and October 2015.

Stuart (1984, p4) claims that "[the] *sample itself can never tell us whether the process that engendered it was free from bias. We must know what the process of selection was if we are not forever to be dogged by the shadow of selection bias*". Therefore, reliability depends upon the individual's evaluation of the selection and sample units. The random sampling method helped increase the number of diverse participants and find those who were interested in taking part in the study. The snowball method was also utilised by making use of a contact person living in the same neighbourhood, known to the majority of residents, to help me connect with the prospective participants. This method was employed to help me establish contact with the residents during the tense situation in Cairo at the time of the fieldwork. The researcher considered the use of such method in terms of its implications for the findings and analysis. Thus, to ensure that only participants from the selected areas are engaged, the researcher directed the local person in establishing contact with the respondents. Fielding (1988) states that contact persons often serve as initial participants.

Although the questionnaire was successfully carried out within the proposed time frame, a few difficulties influenced the data collection process. For example official permission from various authorities was required prior to commencing the survey (i.e. CAPMAS, Ministry of Housing, Ministry of Interior). It is worth noting that due to the laborious Egyptian bureaucracy, the fieldwork had to proceed without obtaining some of the necessary permission forms due to prompt lack of response from the relevant authorities. The only permission obtained was from CAPMAS. Moreover, when walking around the neighbourhoods to survey the residents of the areas of interest, I sometimes experienced suspicion from their part as well as hostility from members of the police forces who questioned what and why I was accosting people on the street as some questionnaires were completed at participants' workplaces. Another difficulty in terms of data collection related to those participants who earn a variable monthly income. To overcome it, an estimated average was recorded.

- **The targeted population**

It is important to describe the exact population to be sampled and the sampling unit, as well as to define the type and size of sample. Chein (1981, p419) describes population as the "*aggregate of all cases that conform to some designated set of specifications*". Following the same perspective, Robson (1993, p261) states "*an important consideration is the geographical area to which we wish to generalize the results*". The sample population is represented by the local residents in all of the designated areas, and the sampling unit is selected to represent the whole population (Rubin and Babbie, 2011; Lohr, 1999). In other words, a sample is a "*subgroup of a population*" (Frey *et al*., 2000, p125).

'CAPMAS' is the only Egyptian agency responsible for conducting population censuses and authorising others to conduct surveys. According to the published results of the 2015 Population Census, the total population of Egypt has reached 88 million inhabitants, about 43% of whom live in urban areas (37.6 million inhabitants) which are distributed over 27 governorates. It has been estimated that a little more than 20 million inhabitants live in the Greater Cairo metropolis and this is the targeted population (CAPMAS, 2016).

- **Sampling frame and size**

The sampling frame has been defined as "*the actual list of sampling units from which the sample, or some stage of the sample, is selected*" (Rubin and Babbie, 2011, p25). Defining the sample size has been regarded as a difficult task (Robson, 1993); however, it has been somewhat agreed to a minimum number suitable for statistical tests (Kish, 1965; Borg and Gall, 1989). It must take into account the homogeneity or diversity of the population, especially when the results are to be applied to the entire community (Robson, 1993). Frankfort-Nachmias and Nachmias (2008) proposed 5% of the total population to represent the sample size. This view has also been supported by Robson's (1993) claim that smaller the sample, the lower the error in

generalising. It has been noticed in social science research that "*sample size used varies from minimum of thirty subjects, which can be drawn from a specific population*" (Yeomans, 1968, p134).

Therefore, this research had to first identify the whole population. According to Denscombe (2014), surveys used in social research do not automatically have to use large samples of 1,000 or 2,000 people and, regardless of the theoretical questions, a research can still be sampled involving participants between 30 to 250 (ibid). There is a wide selection of literature describing the sampling procedures (Patton, 2002; Laws *et al*., 2013; Guba and Lincoln, 1994; Kumar, 2014). To calculate the minimum recommended sampling size of the targeted population an online software was used. This software uses the equation called 'sample size calculation' with confidence level of 95% and margin of error of 5%: "*Sample size = (distribution of 50%) / ((margin of error% / confidence level score) squared)*" (Fluidsurveys, 2016). The resulted number was 385, which then was considered as the required number of the participants for the case study to represent the 20 million population.

The 385 questionnaires were distributed proportionally across the studied areas according to their last official 2006 census population weight or to the population of the administrative unit of which they form part (CAPMAS, 2015). It is important to note that the population data are challenged by various scholars (Sabry, 2009; GIZ, 2009a), but because the nature of this research, official data were used. The target populations from the gated communities and the governmental housing programmes were unknown at the 2006 Census. For the purposes of this research, the population of the districts of which the studied areas form part has been considered instead. The number of questionnaires administered in the selected areas was allocated proportionally according to the area's percentage weight (Table 3.1). For example, the population of Maspero Triangle (62,470) was divided by the total population of the six case studies (509,249) which represents 12%. The 12% was then calculated in relation to the 385

questionnaires to find the number of questionnaires needed to be allocated to this area (48 questionnaires).

A pilot study was used to identify any misinterpretations or ambiguous eligibility criteria. Thus, 28 questionnaires were calculated, using the same size equation, as representative of the 385 questionnaires. These 28 questionnaires were proportionally distributed across the six selected areas, following the same calculation principle as mentioned above. Thus, 14 questionnaires were allocated to Manshiat Naser, 4 to Maspero Triangle, 3 to each governmental housing programme, and 2 to each gated community.

Table 3.1: Case studies questionnaires distribution

Category	Name	Population (census 2006)	Percentage (% of population)	Number of questionnaires
Informal areas	Manshiyat Naser	262,050	51%	198
	Maspero Triangle (Bulaq)	62,470	12%	48
Governmental housing programmes	Mubarak Youth Housing Programme	115,302	23%	43
	Future Housing Programme			43
Gated communities	Beverly Hills	29,422	6%	22
	Elrehab	40,005	8%	30

b) Semi-structured interviews

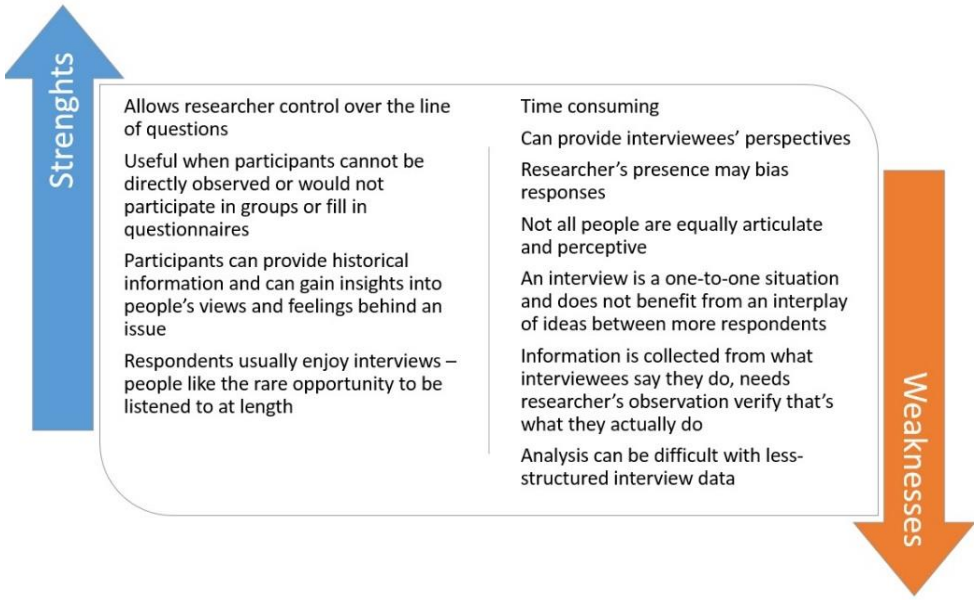
Polit and Beck (2006, p721) define the interview as "[a] *method of data collection in which one person (an interviewer) asks questions of another person (a respondent): interviews are conducted either face-to-face or by telephone.*" They are alleged to be a main source of information in social science research (Mason, 2002; Yin, 2014; Laws *et al*., 2013; Hammett, *et al*., 2015). Mason (2002) classifies qualitative interviews under three categories – in-depth or intensive, semi-structured, and loosely structured. The types of interviews selected depend on the research questions (Yin, 2014; Marshall and Rossman,

2016; Longhurst, 2010). In addition, this method suited the study's focus on perceptions of place (Mason, 2002).

The importance of interviewing representatives of national and local government resulted from the focus on the matters between formulating the housing policies and its implementation in Cairo's neighbourhoods (formal and informal, old and New Cairo). The reason for including NGOs and civil society organisations in the research is because they play an important role in the field of informal housing in Cairo, providing spatial, and socio-economic support for residents. In Egypt, civil society is often perceived as politicised, being associated with urban socio-political movements (funding resources and ideologies), and characterised by high levels of activism. As a result, civil society generates suspicion on the part of the authorities, as well as the public (depending on its attitudes towards the organisation's particular cause).

Semi-structured interviews combine elements of both quantifiable, fixed-choice responding, and the opportunity to explore in depth particular areas of interest (Brewerton and Millward, 2001). Moreover, face-to-face interviews are useful tools in tackling more complex questions like 'how'- and 'why' (Robertson and McLaughlin, 1996). Conducting a good interview is, however, a challenging task which requires careful planning and preparation, as well as ability to listen, flexibility, stamina and attention (Morton-Williams, 1993; Hammett *et al*., 2015). Figure 3.9 outlines pros and cons of interviews (Yin, 2003; Laws *et al*., 2013; Cresswell, 2009).

Figure 3.9: Interviews: strengths and weaknesses



Based on Yin, 2003; Laws et al., 2013; Cresswell, 2009

Interviews have been often preferred in studies of place and seen to attract people in power (gatekeepers) such as state officials and elite, due to their flattering attentions they entail (Bernard, 2005; Herod, 1999). The gatekeepers play a crucial role in the success of the fieldwork. These individuals exercise great power over the case study places, participants, or what the researcher sees and hears (Hammett *et al*., 2015; Kaufmann, 2002; Reeves, 2010). Having access to the key stakeholders can prove quite problematic. This study, for example, has faced such a challenging situation due to the conflict state engulfing the city at the time of the fieldwork. Consequently, various difficult circumstances like securing appointments, delayed interviews, time pressure as a result of delayed appointment, short notice appointment cancellations, or refusal to be interviewed were encountered. On a few occasions, some of the targeted officials refused to take part in a face-to-face interview and instead asked for a copy of the questionnaire to fill in; although this was supplied they never returned it. In the relevant literature, it has been stated that personal contacts or powerful sponsors to support the researcher can enable and/or accelerate the process significantly (Rice, 2010; Mikecz, 2012).

- **Recruitment**

The first step in recruitment is identifying the appropriate types of people, groups, or organisations to contact based on research questions (Hammett *et al*., 2015). The key participants had been selected based on their association with the research topic and the case study neighbourhoods. To conduct successful interviews, three main conditions were considered: (1) expert information from the participant, (2) the participant's role relevant to the study, and (3) the participant's agreement to collaborate.

This study has benefitted from recruiting for interview, among others, the Dean of The Faculty of Urban and Regional Planning at Cairo University alongside other university members. This helped gain an understanding of their perspectives in terms of the latest urban development studied in university, consequently impacting future urban developments. Their academic views were later analysed in relation to the research questions. In terms of the officials interviewed, the study received insight view from one of the top governmental representative bodies through the head of The General Organisation for Physical Planning (GOPP) and few of the urban planners who work at the GOPP. Other groups who took part in the semi-structured interviews were represented by real estate developers, mortgage advisers, academics, architects, planners, lawyers, NGOs and international organisations (e.g. GIZ, French Cultural Centre) and civil society. A total number of 43 representatives of Cairo's housing stakeholders were interviewed (see Appendix A). An initial pilot study was conducted. One interviewee was selected from each category – officials, NGOs, academics, and professionals. This was run with the intention of assessing the time needed per respondent as well as recording the answers.

The major difficulty throughout the interviews was access to data - officials were extremely cautious in disclosing information or sharing

statistical information, and in some cases data was either partially available or not available at all. The general impression was that the government did not want to share its official data, perhaps fearing that it could be used against it in the media or with other opponents during the ongoing state of unrest. In terms of conducting the interview itself, due to the participants' limited time (mostly half an hour), carefully selected questions had been asked, in accordance to the respondents' experience and the kind of information hoped to be obtained.

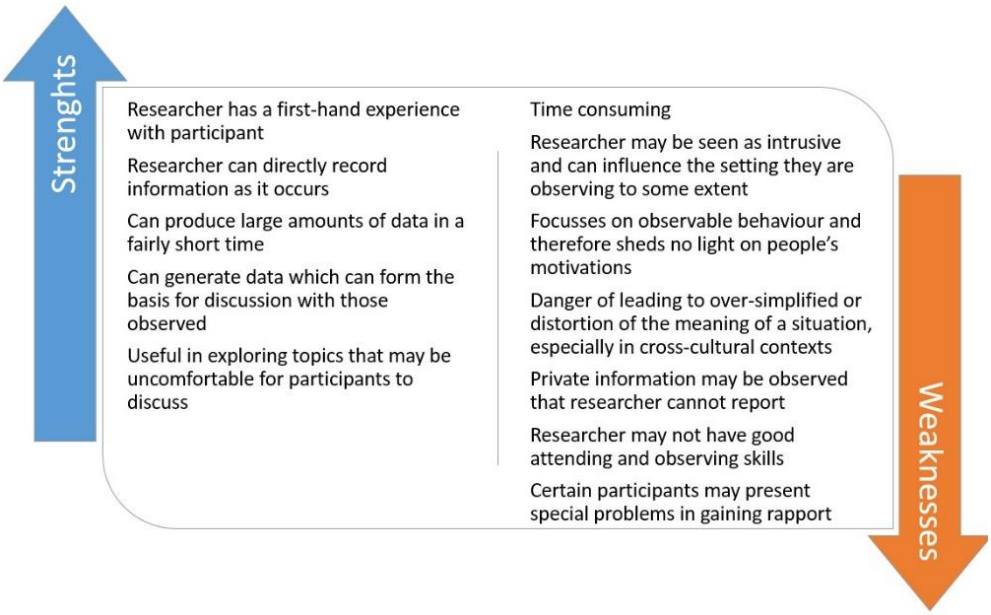
c) Non-participant observation

Marshall and Rossman (2016, p79) define observation as "*the systematic description of events, behaviours, and artefacts in the social setting chosen for study*". Observation is one of the most idiosyncratic method in used in social case studies, as is done through the researcher's five senses, focusing on human actions, physical environments, or real-world events, jotted down as field notes, ultimately creating a narrative evidence (Yin, 2014; Laws *et al*., 2013). The non-participant observation research method can be overt or covert, and has often been used as a feasible data collection method particularly in the behavioural and social sciences through the observer's distant approach – limited level of involvement in the research setting (Laws *et al*., 2013; Marshall and Rossman, 2016).

There are three phases in the observation process: descriptive observation, focused observation, and selected observation. In the first phase, the researcher commences a general observation to get a sense of the setting. It then proceeds to focused observation looking closely to the most relevant events to the research. It then advances onto the selected observation investigating the selected topics for the study (Spradley, 1980). The observation process ends when theoretical saturation is attained. This happens when more observations would not add much to researchers' understanding (Mills *et al*., 2010).

Non-participant observation faces various challenges (Cresswell, 2009; Laws *et al*., 2013; Yin, 2003) (Figure 3.10). The observer effect is a main one in which the researcher could cause reactivity in those being observed. While this effect generally reduces throughout the observation period, it continues to be an essential risk. Another concern is regarding the observer's objectivity in analysing a setting which might be unfamiliar or in contradiction to his/ her values. As in any study, the values and beliefs held by the researcher are an integral element of the research process. However, observers can increase the reliability of their data by using rigorous and systematic methods to sampling, field notes, data analysis and observers spend a long time in the field (Taylor-Powell, 1996; Marshall and Rossman, 2016; Mills *et al*., 2010).

Figure 3.10: Observations: strengths and weaknesses



Based on Laws et al., 2013; Cresswell, 2009; Yin, 2003

In this study, I used overt non-participant observation during the numerous walks through Cairo's informal neighbourhoods as well as in the new satellite cities around Greater Cairo. These strolls served as ways to gather photographic evidence of the physical situation of these neighbourhoods to act as authentic record long after the fieldwork has been completed. The visual data utilised in this study were used as part of the analysis and as illustrations and offered

details that the eye could have ignored. These trips brought to light the issues the inhabitants face on a daily basis. The informal conversations with local residents revealed their realities in relation to housing problems in Cairo. For the reason that observation requires physically entering the researched setting, the standpoint adopted in this research was building a sense of trust and developing relationships with the participants. By doing so, the level of access was increased, contextualised insights about the researched world were deepened, and the dynamics of participants' interactions in their environment over time were captured.

Worth mentioning is that some residents (and security forces) refused to have their houses/areas photographed or any sort of interaction. Observation was scheduled to facilitate data collection, and a clear focus of who and what was going to be observed was identified. Thus, my main objective was to assess the morphology of the selected areas and scrutinise the social interaction in the neighbourhoods in order to triangulate the collected information with that obtained from questionnaires. Taking into consideration the weather in Cairo during the time of my fieldwork (April to December 2015), July and August were seldom used to carry out such observations. The observations took place at different times during the day to grasp the various activities that happen throughout the day.

The vulnerability of this method lies in the observer's risk of 'going native'. This risk applies to those researchers who undertake the research in a familiar place. By doing so, there is an associated risk as the researcher could start relating his/her views to those of the research subjects. Thus, constant re-evaluation of the research purposes and objectives was used by the researcher in order to maintain a neutral and objective attitude.

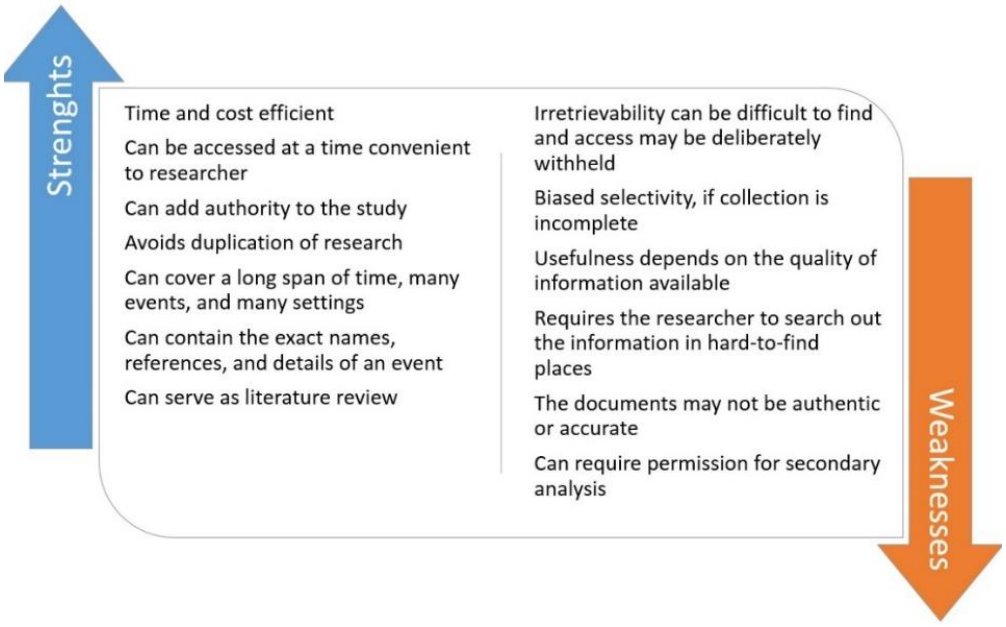
d) Secondary data

The secondary data (documentary, reports, designs and plans, etc.) was used for two main research aims. Firstly, they helped filling the

need for referencing historical studies of Cairo, housing policy, informal settlements, gated communities, and governmental housing. By doing so, they showed the importance of the study. Some examples of secondary data used include statistical data such as the recent figures on housing ownership mechanisms in Cairo. Secondly, secondary data was used to validate the advantages of carrying out primary research. By reviewing Egyptian governmental publications and official statistics regarding Cairo's housing proved to be an efficient method to be used in the research. Nevertheless, the degree to which such official papers are used as factual, objective and authoritative methods depends on the data they provide.

According to Yin (2012), case studies relying heavily on archival data need to be sensitive to their possible biases and take steps to counteract them. The research's aim in reviewing these materials was to identify how housing ownership mechanisms developed throughout various periods of state ideology and increase the research credibility. As with other data collection methods, the pros and cons of secondary data have been considered (Laws *et al*., 2013; Cresswell, 2009; Yin, 2003) (Figure 3.11).

Figure 3.11: Secondary data: strengths and weaknesses



Based on Laws et al., 2013; Cresswell, 2009; Yin, 2003

3.3. Data analysis

Primary data were a combination of qualitative and quantitative forms. The qualitative data were gathered from semi-structured interviews with housing stakeholders (officials, NGOs, academics, and professionals). These data were mostly analysed in Chapters 5 and 6, which evaluate how housing policies are formulated, regulated, and implemented; and examine the structure of official housing institutions respectively. This was done through interviewing officials in order to assess how the government deals with housing ownership; interviewing NGO representatives to identify their resources to mitigate the housing issues in Cairo; interviewing academics with the intention of understanding the philosophy of urban planning; and interviewing professionals in order to explain how this philosophy is put in practice.

The quantitative data were obtained from structured questionnaires applied to the residents in the selected areas. Craven and Griffiths (2013, p147) define quantitative data analysis as "*a systematic approach to investigations during which numerical data is collected, or the researcher transforms what is collected or observed into numerical data*". They were analysed in Chapters 7 and 8, which assess how housing ownership dynamics operate in reality. This was achieved through linking the respondents' socio-economic backgrounds with their ways of acquiring shelter in three of the housing types in Cairo. Moreover, it discussed the residents' participation in shaping their built environment and their views on urban sustainability. Non-participant observation was also used to collect primary data. In addition, secondary data – official reports and statistical information – was used and analysed mostly in Chapter 4 and Appendix B.

The qualitative data obtained from semi-structured interviews had been written in transcripts and later analysed manually by producing common themes and patterns from the data, which had been used as basis for interpretation. At a later stage, Microsoft Word and Excel

were used to manage the data and develop categories to be coded. Bogdan and Biklen (2003, p145) define qualitative data analysis as "*working with the data, organising them, breaking them into manageable units, coding them, synthesising them, and searching for patterns*". Fundamentally, coding consists of breaking the records pieces of information and reassembling them in a new meaningful way that suits the research purposes (Cresswell, 2009). In qualitative research, a code is often a word or a phrase assigned to represent the total of various notions (Saldana, 2009). In the process of coding the data, Yin (2003) advises in searching the patterns, themes or meanings within the data. The goal is to create multi-dimensional categories that provide a primary framework for analysis.

Glaser and Strauss (2006) identified two main qualitative coding approaches – deductive and inductive. This research uses the inductive approach which involves coding the data first in order to generate themes. To ensure that repeated codes match the data, constant comparison techniques ought to be used. The next phase involved using the most frequent codes to recode the records and comparison techniques were used again to ensure the codes assigned were founded in the data. Codes that did not match the data were modified or omitted. Once the codes had been grouped in categories, the final coding phase comprised of generating the theoretical codes (e.g. 'housing policies', 'housing participation') which at a later stage in the research helped answering the research questions and formulating the conclusions. Richards (2000, p200) calls this process "*decontextualizing and recontextualizing*". Hancock *et al*., (2007) claim that the end of data analysis offers not only a mass of results but also 'the big picture' or the major findings.

A quantitative data analysis was employed to convert numbers into meaningful data through the use of rational thinking. However, it was important to apply critical judgement as a number within data set could be translated in various ways. This analysis involved counting and comparing the frequencies in variables and the differences between

variables. Moreover, the data analysis focus was mainly on the emerged themes as opposed to emphasising the individual percentages as these could vary from one research to another. Quantitative methods were invaluable to the study which aimed to summarise results in statistical terms so that the research findings have greater credibility. Furthermore, the value of quantitative analysis arises from the capacity to identify quantifiable components that are of a more qualitative nature and can be grouped as research themes.

3.4. Validity and Reliability

Golafshani (2003) states that although the term *reliability* is a concept used for testing or evaluating quantitative research, the idea is used in all types of research. There is a debate in the relevant literature regarding the reliability and validity as they are quantitative and positivist thus not that applicable to qualitative research (Merriam, 1998; Stenbacka, 2001). In contrast, Patton (2001) claims that reliability and validity are two factors that any qualitative researcher should consider about when designing a study and analysing results. To enhance the trustworthiness of qualitative research findings, several strategies and criteria can be used (Lincoln and Guba, 1985; Healy and Perry, 2000). In qualitative research, trustworthiness is the corresponding term used to encompass the quality of research. To establish trustworthiness of qualitative research four strategies can be used: 'credibility' (in opposition to internal validity), 'transferability' (in opposition to external validity/generalisability), 'dependability' (in opposition to reliability), and 'confirmability' (in opposition to objectivity) (Guba, 1981; Patton, 2002; Strauss and Corbin, 1998). Each strategy uses measures like triangulation, reflexivity, and dense descriptions (Guba and Lincoln, 1994; Krefting, 1991; Cresswell, 2013; Seale, 1999). Trustworthiness gives the reader confidence that the findings are worthy of attention (Laws *et al*., 2013).

To ensure that the study has validity, strategies of triangulation were applied by gathering data through various methods over a period of

eight months, thus offering a prolonged and substantial engagement with the participants and with topics relevant to the study (see 'Triangulation' section below). Credibility and authenticity were also established by presenting the participants with the option of making comments using open-ended questions added to the study and by using the data obtained from the researcher's non-participant observation. Lincoln and Guba (1985, p316) state that "s*ince there can be no validity without reliability, a demonstration of the former* [validity] *is sufficient to establish the latter* [reliability]".

Validity was considered in relation to the study's transferability nature, focusing on the degree to which the results of the study can be generalised to other situations. Due to the possibility of multiple realities, the research, although valid to the researcher, may not be so to others. Golafshani (2003) states that it is upon the reader to judge the extent of the study credibility based on his/her understanding of the study. Silverman and Marvasti (2008, p295) suggest that a research is valid when it satisfies the criteria: it works theoretically through data and develops empirically reliable and valid findings; it uses methods that are appropriate to the research question(s); and where possible, it contributes to policy and practice.

3.4.1. Triangulation

In social research, the term triangulation involves using of multiple methods in order to eliminate bias and establish validity (Blaikie, 2000; Scandura and Williams, 2000). It refers to the use of multiple quantitative and qualitative measures, where data is collected from different sources (Smith *et al*., 2009; Yin, 2014). The need for data triangulation is highlighted by other researchers, who state that it is vital to use a range of data sources (Robertson and McLaughlin, 1996; Hammett *et al*., 2015). Although, perceived as philosophically problematic when used for the purpose of validating the findings, triangulation is seen as valid in augmenting findings (Silverman, 2000; Mason, 2002; Lincoln and Guba, 1985). Two strategies were

employed in order to establish validity: 1) using multi-method techniques in data collection and 2) involving participants from different housing stakeholders in Cairo.

3.4.2. Positionality

Gregory *et al*., (2009) claim that positionality, understood as the researcher's personal, social and cultural position, affects the entire research processes. Reflexivity is the practise through which we consider our positionality. Reflecting upon positionality means considering how race, gender, nationality, age, economic status and sexuality influences the data collected and the whole research process (Hammett *et al*., 2015). Scholars have stated that positionality will always bias the research in some way and therefore it is necessary to recognise that and be transparent about the process (Marshall and Rossman, 2016).

When the fieldwork is conducted in another language, language plays an important role in how data is produced (Crane *et al*., 2009; Hammett *et al*., 2015). Although described as a relatively unproblematic aspect of multilingual research, translation has been seen by some scholars as subjective, complex, and political (Muller, 2007). Sturge (1997) sees translation is an exercise of intercultural communication, a practice in which we appreciate other cultures in our own language. Trying to convey concepts and meaning through translation can be a challenging task (Smith, 1996). According to Lefevere and Bassnett (1990, p1), "*translation as an activity is always doubly contextualized, since the text has a place in two cultures*." Hassink (2007) claims that the language aspect is problematic when the researcher needs to embody participants' words and meanings. In this sense, translation can prove to be a difficult task when representing respondents' words and meanings into academic text. In short, translation requires high degrees of sensitivity to contextual factors and uneven power relations from the researchers.

Thus, bearing in mind my positionality, being a middle class Egyptian male put me in the position to reschedule a few of the questionnaires. When women were the only available members of the household, and refused to fill in the questionnaire in the absence of a male family member, I had to return at a more convenient time. There have been cases, however, when females accepted to take part in the research but only on the doorstep. Being part of the middle class, it was easier to relate to residents in the governmental housing programmes and gated communities than it was in the informal areas. This was because, initially, some of the lower-income residents in the informal areas perceived me as a higher-income individual who would not understand their struggles. However, speaking in the Egyptian dialect and emphasising that their participation represents an opportunity to let their voices be heard, helped me establish a rapport with the people.

This research has given me the opportunity to do the fieldwork in my native language (Arabic) among other Arabic-speakers, apart from few English-speakers, and as a result the problems of translation did not occur throughout the fieldwork. It is important to note that the Egyptian dialect was sometimes used as part of the structured questionnaire to facilitate understanding (mentioned above). When used, however, I chose the closest to the standard Arabic in order to ensure consistency. In this study, I was able to approach different types of areas inhabited by people from the entire social, economic, and cultural spectrum. However, it ought to be mentioned that my positionality also led to some nervousness and refusals of respondents to participate in focus groups and have photos taken (as mentioned above), in some cases.

3.5. Ethical considerations

Ethics is described as "*the search for rules of conduct that enable us to operate defensibly in the political contexts in which we have to conduct educational research*" (Simons, 1995 cited in Pring, 2000,

p142). Chilisa (2005) emphasises that research ethics demand from the researcher to adhere to codes of conduct that protect the researched from physical and/or psychological harm. Ethical issues form an "*integral part of the research planning and implementation process*" (Mertens, 1998, p23). Ethical considerations are important criteria at all stages - before, during and after undertaking any research studies (Miles and Huberman, 1994).

In the early stages of this research study, the ethical considerations were the study's validity, planning for the participants' informed consent, and calculating potential costs (e.g. transport, meeting place). During the study, the ethical considerations included voluntary participation, building a relationship with participants based on mutual respect, ensuring confidentiality and anonymity to all respondents. The final stage of the research, the ethical issues comprised of data ownership and use of results. It was made clear to the participants that the research was only for academic purpose and their participation in it was absolutely voluntary. In terms of informed consent, all interviewees and questionnaire participants had full information about what the study would involve (see Appendix A). An important point to be taken into consideration is the political volatility in Cairo at the time of the study which demanded a flexible and adaptive approach from the researcher.

This research study ensured that all participants had given their consent to use the data collected. A few of the interview respondents requested that some of their responses not be recorded, as they felt this could cause potential damage to their careers. Silverman (2000) claimed that a research intrudes the private spaces of the participants and that privacy, confidentiality and anonymity are to be adhered to at all times during the research. Privacy, confidentiality and anonymity were promised to all participants and their names were changed to pseudonyms. Following Padgett's (2008) guidance, all data was kept secured under lock and without identifying information.

Complying with the ethical considerations, an application was made to RHUL in order to obtain clearance to conduct the study. On receipt of the approval from the University Ethics Committee, permission to conduct the research was then obtained from CAPMAS. Verbal approvals were received from Egypt's Ministry of Interior and Ministry of Housing.

3.6. Methodological limitations

There is no reliable way to generalise from a small sample (in comparison to Cairo's population) which forms the basis of this research, however its primary purpose is to better understand the participants' experiences in relation to the housing process rather than to generalise. The results are limited given that they are reliant on the sample's unique characteristics. As more research of this type will be undertaken, the credibility of its findings will be enhanced. The sample is not intended to be totally representative of the city's overall population. Moreover, the results may not be generalizable nor is it intended to, except other readers/researchers see their application (Yin, 2014; Nisbet and Watt, 1984 cited in Cohen *et al*., 2007).

In the next chapter along Appendix B, 'Historical Urban Evolution of Cairo', the four periods in the history of Cairo's political economy – Islamic, Imperialist, Arab Socialist and the current period – are investigated. This historical account is essential in order to understand the intricacies of Cairo's urban form and its legacy which is still an active part of the housing mechanisms and housing management of Cairo.

Chapter 4: Historical urban evolution of Cairo

4.1. Introduction

Cairo has its origins in the ancient settlement of Memphis and other pharaonic sites, now 24km southwest of the city. Successive and conflicting politico-economic regimes have shaped the landscape of Cairo in greatly unrelated patterns, still found within modern Cairo. Besides these general spatial centres, different features, for instance specific architectural styles and patterns of built form, are acknowledged as symbolic representations of the key characteristics of each regime. The metropolis holds a number of historical districts and important monuments that reveal the architectural wealth of the city, not only as a centre of the Islamic world but as a phenomenon of the human urban experience.

Generally speaking, Cairo's existence has always been dependent on the River Nile and closely related to Egypt's fate. Cairo's dominance is even more prominent within Egypt. Just as Egypt straddles two continents, so Cairo stands across Egypt, joining as well as governing the two sub-regions - Upper Egypt and Lower Egypt. Cairo's dominance is defied only by the Nile, the river that divides both Cairo and the nation while ironically unifying them around it. Cairo's geographic site is strategic – south to north is the natural flow of the country. One in five Egyptians lives within Cairo's official boundaries while one in four resides in its metropolitan network (CAPMAS, 2014). In order to achieve sustained economic growth, greater income, and better living conditions, Egypt must plan to accomplish these goals in its capital first 'distribution theory', taking into consideration that half of the urban population resides in Cairo (Henderson, 1974; Krugman, 1996; Angel, 2012; CAPMAS, 2014). Furthermore, many of Cairenes are engaged in the modern economy, represents a preview of what eventually occurs in the rest of the country. We can therefore say that Cairo is Egypt's centrepiece displayed to the world.

Throughout the course of its long existence, Cairo has played a vital role in world history. As a result of its authority in Arab culture, the city

has rightly gained its name as the ‘mother of the world’ (Smith, 2008). In terms of the history of Cairo’s political economy we can distinguish four periods – Islamic, Imperialist, Arab Socialist and the Current Period (Transitory) (Stewart, 1999). To understand a complex city such as Cairo, it is necessary to undertake an examination of Cairo’s urban form through a political economic perspective. By doing so, I aim to obtain a better understanding of the active relationship between urban form and the domestic and external political economic environments. By gaining the insights into the mechanisms that operate cities, I may identify the leading ideologies and their representation on the urban form, especially in terms of housing which is my main focus.

It has been frequently stated that Cairo is a city of disparities and paradoxes, of excesses and archaisms (Abu-Lughod, 1971; Dillion, 2009; Sims, 2013). The capital is trying to merge ancient farming traditionalism with industrial modernism under the globalisation style. This is reflected in its diverse social groups, who are still engrossed in the realms of traditional neighbourhoods, whereas some strive to master the technical modern world, others are trying to adopt a complete international way of living. In other words, Cairo is a complex city, a blend of old and new, East and West; it contains the contrasting lifestyles of a peasant village, an industrial city and a modern metropolis (Own fieldwork, 2015). Observing the situation of present-day Cairo, an essential question arises – ‘how can the city be saved from further deterioration and developed in terms of housing policy’, taking into consideration that more than 63% of its housing is considered to be informal (Sims, 2003) coping with increasing population, housing shortage, inadequate utilities, transport, and other public services.

Scrutiny of Cairo’s historical development is useful in understanding how changes in political ideology and planning principles affect the city's built environment. It is mandatory to associate cities with the broader political economics within which they function, and to the

socio-cultural realms of which they are part (Simon, 1992). All historical periods have naturally led to changes in both, urban patterns and the cultural setting of the city. To understand the current situation of housing, it is essential to analyse the historical development of Cairo. Simon (1992) affirms that in order to appreciate the contemporary postcolonial processes and problems, one ought to look into the precolonial modes of urban production and social organisation, and the subsequent colonial impacts that have transformed the continent.

This chapter, along Appendix B, examines the history of urban development in Cairo, Egypt until 1952 with the aim to explore the past in order to understand the present and plan the future (Graseck, 2008). Indeed, the historical urban development should be taken into account in order to fully understand the present-day built environment. Lewis Mumford (1961, p11) states that,

> *"If we would lay a new foundation for urban life, we must understand the historic nature of the city, and distinguish between its original functions, those that have emerged from it, and those that may still be called forth. Without a long running start in history, we shall not have the momentum needed, in our own consciousness, to take a sufficiently bold leap into the future; for the large part of our present plans*."

Furthermore, the urban growth of Cairo from its infancy at Babylon to the giant city of today can be seen (since the time of 'Amr in the 7th century) by tracing the interaction between socio-political and physical developments. Throughout this historical study, I recount the first two historical periods, Islamic (640-1863) and Imperialist (1863-1952) (see Appendix B), in the development of Cairo, as the latter modern period since 1952 represent the focus of my research in terms of accessing housing ownership mechanisms.

4.2. Historical urban development of Cairo

Nowhere has Cairo's historical development been as clearly and concisely summarised as in André Raymond's 'Cairo' (2002, p4):

> *"For forty kilometres along the valley on either side of the Nile, the history of several thousand years was written in summary form in the space where Arabic Cairo would evolve. From a projection of the Muqattam Hills where Ayyubids built the Citadel (in 1176), one could contemplate this space and, as it were, pass the stages of its history in review: the pyramids rising against the horizon; old Cairo, visible in the distance; at the foot of the Citadel, the grandiose mass of the Mosque of Sultan Hasan, a Mamluk masterwork and celebrated forerunner of the city of the Thousand and One Nights; and all around, no matter where one looked, the ancient city's landscape of minarets and cupolas being gradually transformed into a modern city, whose boundary at the Nile could only be guessed at in the distance*."

When observing Cairo from an outsider's perspective, extracting the rationale behind what seems to be irregular urban chaos is challenging. To rephrase the sociologist Janet Abu-Lughod in her book 'Cairo: 1001 years of the city victorious' (1971), cities represent all things to mankind. Great emblematic cities such as Cairo, with their long-lasting histories and contemporary life, induce different reactions from those who reside or visit them. To the dweller always stuck in the present routine, the city seems eternally present, in which past and future are somehow notional. The tourist, however, finds excitement in the shapelessness and archaic contrasts the city offers. Whereas the tourist idealises the past, thus failing to notice the urban struggles of the current inhabitants, the residents fail to look at the city with grandeur, or to marvel at the glorious past due to their mundane urban life. Between these two types of people – tourist and resident – we have students. To an urbanism student, who researches the city of

Cairo, this ancient metropolis represents vital cultural, socio-economic, and urban problems while faced with the massive challenge of bridging the past with the present in order to achieve a sustainable future.

For questions such as ‘How is a study of Cairo going to manage with the question of chronological data?’, ‘How much should be encompassed?’, ‘How shall the evidence be analysed?’ there are no straightforward answers. My approach is to appraise each period by its impact on the urban development of Cairo. Just as any other city, the transformations of Cairo’s physical layout reflect the effect of different eras characterised by their unique ideologies. The hypothesis of this study is that these historical periods have left distinctive traces on the design, form, identity and production of housing.

There are three main historic periods of Cairo’s urban development, where the first two are discussed in this chapter. A detailed historical account can be found in Appendix B. The first is Medieval Cairo (940 – 1863), referred to as Islamic Cairo, may be viewed as the initial growth period for the city and its suburbs. Throughout the development of the Islamic Cairo spanning over a period of approximately 900 years, various dynasties succeeded in generations from the Fatimid (969-1171), Ayyubid (1171-1250), Mamluk (1250-1517), and Ottoman (1517-1863) that had in between the French Expedition (1798-1801). The enduring characteristic left by the Islamic era upon the urban form is represented conceptually by the Islamic urban patterns.

The second period in Cairo’s history is embodied by the era of European Cairo (1863-1952), which originated in the implementation of western planning concepts and an ideology of modernization during the reign of Khedive Ismail. During this era, a new European city was built next to the older Islamic one. This period continued through the colonial era into the British rule of Egypt that began in 1882. The assimilation of Egypt into the imperialist-controlled world economy characterised Cairo until the mid-20th century. The end of this era was

marked by the change of Egypt from a Kingdom to a Republic with the Egyptian Revolution of 1952.

Modern Cairo is the third historical period in the development of Cairo that extends from 1952 to the present (see Chapter 5). In 1952, Egypt faced a drastic regime shift when Gamal Abdel Naser who supported by a group of military officers dethroned the British-backed monarchy and established an independent Egypt. With the socialist era, the government was now shifting from western ideologies towards an Egyptian identity through policies that encouraged property redistribution, housing reform and construction of large-scale building projects. This period marked the beginning of the current historical era, and can be regarded as a bridge between the socialist past and a presumed future portrayed by capitalism, privatization and a market-driven economy.

4.2.1. Discussion

The interest in the topic of the Islamic city dates from the beginning of the 20th century, when several European scholars such as the Marcais brothers in 1940s, Roger Le Tourneau 1950s, Jean Sauvaget and Xavier De Planhol endeavoured to find the difference between the Islamic city and its medieval European counterpart. They highlighted that the centrality of the mosque, the market and public baths are seen as general geographies of Muslim cities. Moreover, many attempts were undertaken to portray an overall description of the physical structure of the Islamic city. For examples, William Marcais (1928) records that new cities were often established by new dynasties in Islamdom, thus recognising that Islamic civilization was more than religious believers; it was a functioning society governed by religious laws (cited in Abu-Lughod, 1987). Georges Marcais (1940) depicts the morphology of the Islamic city. He annotates the disparity between non-residential and residential quarters and the point that residential quarters are frequently inhabited according to ethnicity. Lastly, he describes the physical constitution of the city markets which he

indicates are systematically organised (Abu-Lughod, 1987; Von Grunebaum, 1955).

Von Grunebaum's (1955) work, 'The Structure of the Muslim Town', displayed a full Orientalist picture of the characteristic Islamic city. He fused the work of the Marcais brothers on Morocco and Sauvaget on Syria into a compendium of features, which he called 'the typical physical form of a Muslim city'. For example, Von Grunebaum and the Marcais (Cited in Von Grunebaum, 1955) noted that Islamic cities required western municipal organization though it was somehow acquired through the religious 'sheikhs' and crafts leaders of the ethnically specialised quarters.

While attempting to define the Islamic city in relation to European medieval cities, European as well as some scholars from the Islamic world (Abdel Ismail in 1972 and Ahmed Monier in 1971), have illustrated the Muslim city unable to change and develop (Alsayyad, 1999). Their arguments are related to the inequalities in the form of Islamic cities as a result of lack of regulation. A critical view of the existing literature regarding urban structures of the Islamic cities came from Lapidus in 1967. He based his research on Aleppo, Cairo and Damascus, concluding that Islamic urban societies are constructed in such a manner that essential powers and functions are divided between their constituent groups (the military elites, the religious leaders, and the local notables and merchants). The urban form of the Islamic city rose from the various interactions between these groups.

Hourani and Stern (1970), started a rational questioning of previous literature on Islamic cities. Hourani pointed out that most of the case studies about Muslim cities came from North Africa, hence generalization was the tool in interpreting the research findings. Stern and Cahen (1970) noted that work-specialised guilds were not found in Islamic cities. Elali and J. Lassner (1970) on 'the Round City of Baghdad' suggest that most studies still concentrate on one case and try to generalise, leading to the idea that all Muslim cities look alike.

Even Abu-Lughod (1987) admits that her book on Cairo (1971) followed the Orientalists by adopting many of their features characterising the Islamic city. Edward Said's fundamental book, ‘Orientalism’ (1979), stated that early Orientalist research was instilled with the idea of the Orient as enigmatic, static, and ultimately inferior. Said’s influential view was soon accepted by many researchers on the topic, such as Serjeant (1980), Serageldin and Elsadek (1981), Germen (1983), Saggaf (1987), Akbar (1988; 1992), Alhathloul (1992) and Alsayyad (1999).

The brief description of literature on Islamic cities aims to bring to light the various biases that governed the early literature about the Islamic urbanism. Instead of analysing the unique characteristics of specific places, the early Orientalists tried to fit the cities into a suitable frame. In our attempt to portray a city, we must think of cities as products of countless forces (Abu-Lughod, 1987; Simon, 1992). The forces considered to have shaped the traditional Islamic city would include the climate, technology of production, distribution and transport, the system of social organization, and a political system which varies considerably throughout Islamic places and times (Abu-Lughod, 1987).

Abu-Lughod (1987) pinpoints three Islamic elements at the core of Islamic urban form. First, the separation between Muslims and the ‘outsiders’ (non-Muslims) led to juridical and spatial division by neighbourhoods. However, this was not the case in Cairo (ibid). Second, the segregation of the sexes led to a particular spatial organisation, where line-of-sight distance was a design element of the Islamic city (windows, heights of neighbouring buildings, dead-end court streets) towards a semi-private space (for more details see Lane-Poole, 1902; Nadim, 1975; Abu-Lughod, 1987; Danby, 1993). Third is the Islamic concept of property and the legal system. In comparison, the Roman (later Western) law puts emphasis on private property rights, while the Islamic law emphasises the public and communal rights over land. One must consider that, for several reasons, the

Western law should have been more successful in preserving the public space than the Islamic law.

Although Islamic law acknowledged, in principle, the inviolability of the public streets, in practice three key factors intruded to make conservation difficult and to soften the penalties for infringement. First, within an alley, or other limited access way, only the abutters were liable for maintenance, so unless a neighbour complained, there was nothing to be resolved. Second, even on public streets, the air rights over the street and a basic easement around the building plot itself, including the street side, 'belonged to the owners of abutting property. And third, once a rule had been broken over a long period of time without being contested, it was forgotten (Abu-Lughod, 1971; Own fieldwork, 2015).

With these three legal principles at work, it is not hard to imagine the process that has shaped Cairo's complex urban pattern. It is considered that the burning of Fustat has allowed open spaces of Cairo to be gradually intruded upon. Temporary structures such as shops and their surrounding benches, and house extensions onto the street, were transformed into permanent structures. Single actions, reproduced by the hundred, were steadily closing the straight medieval paths, triggering alterations in traffic while forming the so famous dead-end alleys in the old city. In another way, what is striking in this situation is not the social behaviour of Cairo's residents but the lack of sustained effort on the part of the authorities to prevent or penalise these actions. While this was the political climate in Egypt, in Europe, Abu-Lughod (1971) states that the citizens were gaining power within the municipal government, which was thus preoccupied with defending property rights.

Part of the foundations on which the Islamic socio-economic development model was built was 'waqf' – donating a building or plot of land. Although beneficial, it increased corruption and allowed inadequate regulation of the land use in Cairo (Personal interview with

A1). This had a catastrophic effect on the urban system and maintenance of its properties decreased. Reforms started only after the complete abolition of the ‘waqf ahli’ (family or private waqf), and the concentration of all ‘waqf khayri’ (charitable waqf) under a central ministry by the revolutionary reforms of 1952 was a temporary solution found to the problem that had plagued Cairo's development throughout the medieval period (Abu-Lughod, 1971).

Alongside the Islamic factors that helped to shape the city, I ought to mention the climate factor, which has fashioned Cairo’s street pattern since its early beginnings. The direct overhead sun shining over Cairo for long-lasting eight months’ summer and the lack of clouds or uneven topography to cast natural shadows, lead to the constraint of creating artificial shade. This was achieved by placing buildings close together to shield the roads but only for a short period of the day (Plate 4.1). According to Abu-Lughod (1971), during periods of intense heat, the markets of the older city are far more comfortable than the air-conditioned shops of the modern sector. Thus, urban ecologists (e.g. Hassan Fathy, 1986) look upon the medieval architecture as a highly functional adaptation to the climate requirements while sceptical towards the westernised concrete and air-conditioned ‘skyscrapers’.

Plate 4.1: Islamic architecture

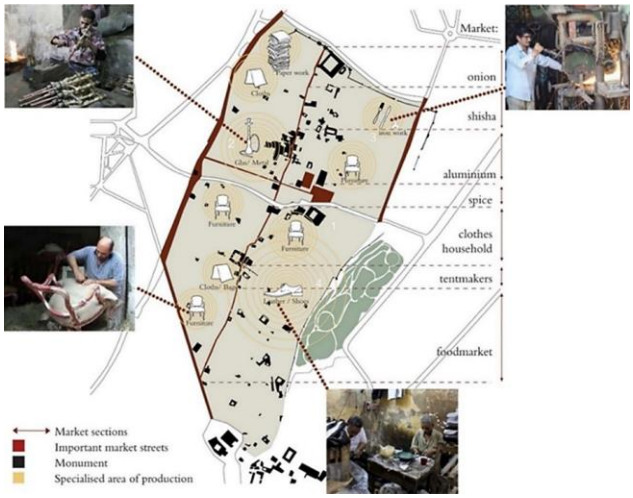
Based on own fieldwork, 2015

Moreover, under the technological conditions of the medieval city (e.g. the rudimentary means of transport), Cairo’s roads required neither broad motorways nor intricate traffic junctions. Travelling at low speeds needed neither straight direction nor a hard, smooth

pavement. Reorganising the circulation system to meet the needs of an overcrowded city is the most challenging task in regulating a city since the streets are least flexible to change. In the last two centuries, only three main roads have sliced through the medieval labyrinth and each was constructed at immense cost, both financial and in terms of the invaluable historical monuments which were demolished to make space for the transport that came with innovation.

The historical Islamic area, now generally considered to constitute Old Cairo, encompasses Bab Alsharia, Algamaleya, Aldarb Alahmar, Alkhalifa and Sayyeda Zeinab. Two associated urban features should be taken into consideration – to the east and south, vast medieval cemeteries, now known as the 'Cities of the Dead', were established as burial sites for Fustat and Alqahira. Secondly, the port outlier of Bulaq was settled on the eastern bank of the Nile and this area is still characteristic today as morphologically reminiscent of Old Cairo, even though is just north of the present-day central business district of modern Cairo. Although small in area and population, compared to the sprawling metropolis of Greater Cairo where approximatively 20 million people reside, Old Cairo remains of foremost importance in cultural and heritage terms (Figure 4.1).

Figure 4.1: Current land use in historical Cairo



Based on Jeannet and Schuemperlin, 2010

Imperial Cairo came into being after the end of Muhammad Ali's reign in the late 18th century. However, Cairo's road to westernization had

started with the short French occupation (1798) and the lengthy reign of Muhammad Ali, who made Cairo into the Pashalik of Egypt in 1805. In attempting to understand the nature of modern Cairo, we are faced with an inexplicable paradox. Although Cairo was under French occupation for just three years and under the British for 80 years, 20th century Cairo was shaped by the French rather than by the British, as the use of French professionals made Paris into the first prototype of western styles (Abu-Lughod, 1971; Gregory, 2005).

The shift in values affected the local architecture of the city in adopting the western influences, façade colour and building material. Throughout Ottoman and Colonial era period, Cairo was planned and developed under two main influences – the European political intervention and the local peripheralisation within a westernised world economy. Local landscapes were emerging based on adoption and adaptation processes on one side, and on rejection of the European models in the traditional areas on the other side. The newly emerged westernized urban environments have divided the city into old and new; 'old city' referring to tradition and local life, while the 'new city' consisted of public buildings, commercial centres, and residential neighbourhoods. Imperialist Cairo was illustrated as a mixture of old and new (Abu-Lughod, 1971; Shechter and Yacobi, 2005). Modernisation has led to rapid urban growth of Cairo, making it difficult for the public administration to effectively manage the city. The legacy of modernisation it is still very much felt at the institutional level.

In this study, I argue that adopting foreign architectural models without merging them with the local features while considering the arid climate have had a negative impact upon the housing stock and the built environment in Cairo; this is felt till present days. Considering the geographical context where Islamic architecture evolved, it could offer sustainable solutions in dealing with age-old challenges such as a hot climate. The current architectural practices, Western in nature, use artificial lighting and air-conditioning in trying to improve indoor environments. Traditional Islamic architecture was developed taking

into account the natural circumstances of the region, thus providing shade, privacy and a breeze (Fathy, 1986; 2000).

In July 1952, the British-backed monarchy was overthrown by the Egyptian military, establishing an independent Egypt. Looking back in history, no harm can be done by saying that the urban development of Egypt throughout the Arab socialist period, has received little academic interest. One of the reasons for the limited investigation of this period could be due to limited access to national data, arising from extremely limited foreign academic in-country fieldwork (1952–1975) (Hamroush, 1977). Intrinsically, the aim of this study is to narrow the 'knowledge' gap concerning the urban development of Cairo by combining the westernised approach to research with the indigenous elements of the author (historical perspective, culture, language and most importantly access to various native scholars and regional authorities). Thus, the focus of my research is based upon Arab Socialist and the Current Period, as mentioned at the beginning of this Chapter.

4.3. Evaluation and conclusion

Cairo was established in 969 A.D., on land neighbouring Fustat, another Islamic city founded at the rise of Islam in 647 A.D. These cities were preceded by the Roman and Pharaonic settlements (Babylon and Memphis) located approximately in the southern apex of the Nile Delta. Since the origins of the city, Cairo's characteristics have been religious (through the central mosque) and military (represented by the army). By the 14th Century, under the Mamlouks, Cairo had become an architectural splendour of the medieval world by dominating the regional trade. Three centuries later, under Ottoman rule, Cairo entered a long period of stagnation which lasts for 200 years. Only with the 19th century, under the rule of Mohamed Ali Pasha (and his successors), Cairo began to reaffirm itself politically, commencing a process of economic growth and modernisation, though largely dependent on European investors and experts. Such

examples were Copts, Greeks, Armenians, and Levantines entrepreneurs who had a great impact on the economic life of the city. From 1882 until 1936 Cairo, and Egypt as a whole, fell under British colonial rule. In the early stages of Cairo's development, planning concepts were grounded in traditional beliefs and ideologies. As the medieval period passed, the city turned towards modernism, triggering planning that held western values.

From the brief analysis of the historical development in Cairo, one key feature can be observed when scrutinizing city's growth, namely that the city's native population did not have the opportunity to develop urban self-consciousness or a governmental system because of its long history of foreign rulers. Cairo entered the contemporary era without a broad-based and responsible form of municipal government. This facilitated the fragmentation of the city and its society and acted randomly towards growing urban needs. Since the 1950s, Cairo has started, to some extent, to separate itself from the national administration but even at present, the city lacks many of the features considered part of 'home rule' (see Chapter 6 and Appendix C). Complementing the private businesses, the Ministry of *Awqaf* - government within a government, reserved its power over a substantial proportion of Cairo's real estate over which it exercised unrestricted control.

Large cities have developed as the collected product of countless decisions loosely co-ordinated, through the process of what urban ecologists have called the sub-consensual processes of spatial distribution (Abu-Lughod, 1971; Simone, 2004; Myers and Murray, 2006). In the historical analysis of the contemporary social-physical organization of Cairo, the processes of spatial distribution have been far from shaping and giving coherence to the city's structure. The absence of planning and building regulations was a norm in the past, but unfortunately this continued within the newer parts of the city, at the turn of the current century. In Cairo's older zones, these became the forces that caused further decline. When the housing stock could

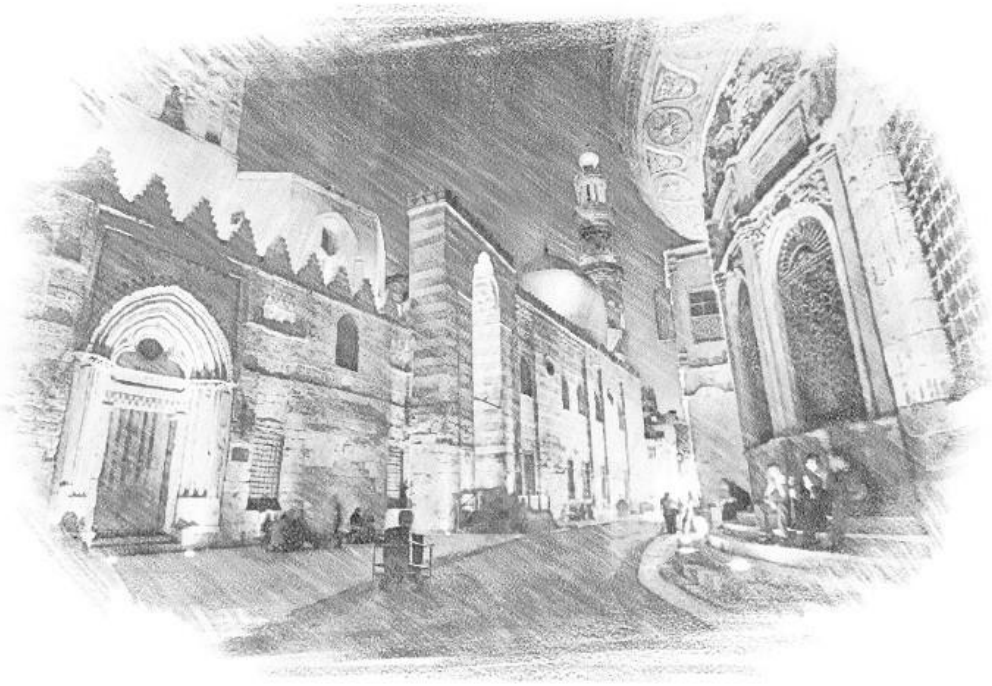
not cope with the rural migrants any longer, cemeteries were transformed spontaneously into residential quarters, a method that no plan could have predicted and informal housing became the dominant type.

Moreover, the difficulties of attaining co-ordinated development in all neighbourhoods of Greater Cairo remained unchanged. Informal development seemed to become the standard in Cairo's developments. However, the state can both adjudicate these processes, directing developments in specific directions, and inhibit decisions that would undermine its development objectives. Firstly, it can actively take part in the urban development process; and secondly, it can use its authority to influence the terms within which investment decisions are made.

With the rate of population growth from 1950s, the government has failed to meet the housing demand due to malfunctioned housing policies and unsystematic increase in population in the old and poorer neighbourhoods (see Chapter 5). Therefore, the present authorities are not trying to cope with the massive population growth and their needs but are attempting to remedy the situation. It is important to note, however, that contemporary urban challenges coincide with severe shortages of investment funds in Egypt. In these instances, the present municipal government has inadequate power in acquiring and distributing local funds efficiently to cope with the challenges faced by the residents of the city of Cairo (see Chapter 6).

After examining the legacy of the historical urban evolution of Cairo, it is now time to study present-day housing policies to appraise how they cope with the current housing issues. To understand the present housing problems, two approaches have been adopted – the top-down and bottom-up. Chapters 5 and 6 represent the top-down approach. Chapter 5 examines the housing policies in relation to the politico-economic regimes since 1952, thus addressing in detail the housing policies for low-income groups since the 1952 Revolution.

Chapter 5: The codes of shelter



5.1. Introduction

This chapter evaluates the housing policies as they are the codes that form the framework for securing shelter. Housing policies are increasingly important in Africa, particularly due to the rapid development of cities in which competition for land intensifies. It is well-known that inadequate and/or outdated policies result in chaotic, inefficient and unsustainable cities. Planning legislation in Egypt is considered outdated as it has remained largely unchanged since the colonial era, and it is thus ineffective in dealing with contemporary urban issues. The 'one-size-fits-all' and western 'model' housing policies have proved less successful in Africa, not least in Egypt.

With the increased difficulty in owning formal housing in Cairo, some residents have had to use their own means to create shelter for themselves and their families, while others have chosen to rent. The current housing policies maintain spatial and socio-economic inequality, thus informal settlements continue to spread across the continent. In addition, there is a need for urban planning and management professionals to respond to urban issues with reformist pro-poor approaches. It is frequently advocated that in order to manage urbanisation better and achieve sustainable and equitable urban development in Africa, the improvement of planning law is necessary (Simon, 1992; Tostensen *et al.*, 2001; Simone, 2004; Porter, 2010; King, 1990; 2010; Aljayyousi, 2012; Yankson and Gough, 2014; UN-Habitat, 2011; 2012c; 2014).

To understand the operating framework for housing provision, it is necessary to examine its socio-political and economic organisation alongside the scrutiny of the roles and associations of all stakeholders with the state and its regulations. These agents comprise of individual households, community groups, NGOs, private investors and developers, local and central government officials (Simon, 1993; Mathy, 1992; Jones and Ward, 1994; Keivani and Werna, 2001b; UN-Habitat, 2012a). As a result, all these agents need to be considered in

relation to the housing production process. This chapter reviews Egyptian housing policies for low-income groups since 1952 and its impact on the housing issues in Cairo, and covers the top-down approach represented by the governmental approach.

5.2. Housing programmes

Housing programmes are governmental action plans that aim to calculate the required number of housing units, to monitor the units produced, and investigate the coping mechanisms regarding the housing deficit. Angel *et al*., (1977, p79) claim that:

> *"The arithmetical approach starts by establishing an unrealistic minimum standard for housing. This standard then creates a severe housing shortage because most of the existing kinds of low-income housing do not meet this standard. The arithmetical way to overcome this housing shortage is to construct new housing units in sufficient numbers*."

For decades, Egypt has struggled to provide housing for its low-income families while also trying to control urban growth. The typical governmental housing in Cairo comprises of up to five-storey blocks with up to four units per floor. The blocks are built based on geometric plans within the site, and the key design feature is to allow air through windows and balconies. Although this economical design permits fewer walls in the governmental housing programmes, it requires wide spaces between buildings, consequently greater land-per-unit ratios. This results in far lower residential densities compared to those found in informal areas, thus the visible housing segregation (UN-Habitat and AUC, 2011; Sims, 2012; Own fieldwork, 2015).

In general, the governmental housing benefits from good structural quality with few exceptions (e.g. Moqattam housing estate, where the state has built on unsuitable soil). The housing projects are built on extensive parcels of land enclosing hundreds or even thousands of units, with no real attempts to build smaller buildings to reflect existing

urban fabrics (Personal interview with P1). Moreover, as opposed to typical urban sites in Cairo, these housing projects do not provide shops built on the ground floors, thus offering an opportunity for the housing projects to thrive economically (Eldemery, 2002; Personal interview with A3; Own fieldwork, 2015).

Over recent decades, successive Egyptian governments have tried to equalise the housing supply with demand. Some would claim the government has not genuinely tried to solve the housing problems faced by Cairenes (Personal interview with P1). It has been estimated that in order to accommodate Cairo's increasing population, 440,000 - 600,000 housing units are needed annually between now and 2020, 300,000 of them for low-income households (Handoussa *et al*., 2005). When not enough affordable housing is offered to the poor, strict regulations or land protection enforcements will not be able to stop the informal settlements in which about 18-20 million reside across the country (Elkouedi and Madbouly, 2007). However, according to the 2006 census, there are 6 million vacant units countrywide, of which 1 million are in Greater Cairo (CAPMAS, 2008a). What contributes even more to the housing issue in Egypt, is that there is no official urban policy but series of national sectoral policies which are generally based on the president's and his government ideology, and a main strategy for desert development in which new towns are planned (Personal interviews with N3, A2 and P1).

As seen by some governmental bodies and academics, the answer to the housing problems in Cairo lies in the desert. Here, it is hoped that an organised, uncrowded, and modern urban Cairo will be established (Personal interview with O3). The only attempt, some would argue, to draft a policy based on sound recommendations was in 1980 - 1981, when the 'National Urban Policy' study was commissioned by the Ministry of Housing, Utilities and Urban Communities (MHUUC) under USAID funding. It offered a set of recommendations which emphasised the value of using national resources to stimulate economic competitiveness as a way to meet the national socio-

economic objectives (PADCO *et al*., 1981). Although this study examined the urban sector as a whole, it was not well received by the officials due to the recommendation of balancing the investment between the new cities and the existing city (Personal interview with O16).

In fact, between 1998 and 2002, the government had adopted the contrary approach, having invested over 22% of the (MHUUC) budget into to the New Urban Communities Authority (NUCA) for less than 2% of the population (World Bank 2008a). During the time of my fieldwork, many closed discussions occurred about the draft 'National Report of Housing Policies', which was presented at the Habitat III conference in Quito, Ecuador (17 – 20 October 2016), but has not been published yet. This report had been made available to only few selected people, during finalisation of its content, without involving all the stakeholders to take part in the drafting process. Moreover, there is a limited opportunity for specialists and researchers to systematically collect information on housing policies, which become almost non-existent for the ordinary citizens (Own fieldwork, 2015).

In brief, the state supports housing in three ways – the construction of standard housing units, land provision for construction at lower prices than on the market, and the low-interest loans provisions for construction of housing units (Personal interviews with O3 and O14). However, with millions of families living in inadequate housing, these three types of support do not address all possible housing needs (Personal Interviews with O4 and N1). The next section outlines the national housing policies and programmes.

5.3. Housing policies

In the early 1980s, rigorous analysis of housing in poor countries started to appear. Egypt, alongside other developing countries, faced numerous urban planning challenges during the second half of the 20th century as a result of population growth and its negative impact

on the economy. For Egyptian low- and moderate-income groups, access to housing remains a key issue today. In Egypt, the government is one of the leading housing providers, alongside private sector suppliers. The government had provided 36% of the total formal urban housing units over the 25 years to 2007 (Wahba *et al.*, 2007). The main housing concern is to cope with the urbanisation caused by the immigration of rural population and trying to accommodate the increased number of family members of each household. Every 8 months, Egypt has approximately 1 million new citizens to house as a result of an annual national population growth rate and rural to urban migration of 2.2–3% and 1 – 1.8% respectively over recent decades (GIZ, 2016). These housing challenges have affected the public service provision and triggered deterioration of quality of life.

For Egypt, the years from 1952 to the present have been marked by three revolutions, two wars, financial crises, countless riots, terrorism and political unrest and reflected the political and socio-economic situation at its time. These events have affected negatively as well as positively the urban development programmes; while some led to the expansion of informal settlements in Cairo, others motivated the government to upgrade existing settlements or to build new cities (Wahba *et al*., 2007; Duquennois and Newman, 2009; Hassan, 2011a; Elkafrawy, 2012; Mosad, 2014; Badawy *et al*., 2015). It is worth noting that one of the main characteristics of the majority of the Middle Eastern regimes is that the state is governed by a dominant ruling party – either royal families or those who seized power or were elected. The other classes (lower class, working class, middle class) are powerless in terms of effectively influencing their governments (Hourani, 2002; Richards and Waterbury, 2007). As a result, these countries lack the very necessary public participation. In addition, Cairo's development has been disadvantaged by its reliance on foreign measures that proved unsuitable for the socio-economic form, and therefore unsuccessful in achieving the required improvement. Being built on 'hybrid of policies' (Hamza, 1998), Cairo provides a valuable research opportunity to explore the aims and outcomes of the

housing policies implemented over the last 70 years under the various political regimes.

5.3.1. The Naser era: 1952 – 1970

Prior to a brief chronological recount of the development of housing policies during the Naser era, it is worth mentioning the period before independence. Between 1929 and 1952, Egypt's development strategy was reliant on free trade and private enterprise, namely import substituting industrialisation and agricultural exports. Housing development was a key area for private investment, leading to only a minor shortage of housing due to greater supply than the demand. At that time, housing was built largely by foreign capital as a result of land concessions that were offered with the aim to develop Cairo's neighbourhoods– especially Maadi and Heliopolis – for middle and upper income groups. The poor and low-income classes crowded in Cairo's low-cost historic neighbourhoods such as Abdin, Bab Elsheareya, Bulaq, Elsayyda Zeinab, and Masr Alqadima (Sims *et al.*, 2003; Elaraby, 2003; Waterbury, 2014) (Figure 5.1).

Figure 5.1: Housing policies 1932 – 1952

Housing policy between 1932-1952		
Limited public housing production for state senior staff and civil workers, and workers (e.g. 1,200 housing units for workers in *Imbaba* and *Helwan*)	Limited but sufficient private housing production for high and middle income	Low-income people live in cheap accommodation in the Cairo's old quarters (e.g. *Elsayeda Zayneb*, *Elazhar*, *Elgmalia*, etc.)
There was no housing issue, with exception during the WWII.		

Based on Hanna, 1988; Personal interview with A3

Public services such as water supply, electricity, civil administration and railways were provided by the public sector. By the end of the 1940s, extreme wealth concentration was represented by the 80% of cultivable land which was owned by just 3% of the population (Osman, 2010 cited in Nagarajan, 2013). In short, the British urban management approach has been exported to colonial Egypt (see Chapter 4). Towards the end of colonial domination, the Egyptian

government took the lead role in the social housing production with the 'Helwan' and 'Imbaba' housing projects in Cairo. It was claimed that until the 1950s, the state did not need to intervene in the housing supply (Arandel and Elbatran, 1997; Elaraby, 2003; King, 2010) as the main housing supplier was the private sector (Abouelmagd, 2011b).

The implications of this view of housing policies became evident in the extensive inequality that arose in Egypt during that time, triggered the 'Egyptian revolution of 1952' which led to the establishment of The Revolutionary Command Council (RCC) placed in charge of Egypt. The RCC rejected the idea of leaving national affairs to civilians and planned to transform the state into a socialist system through adoption of radical land reform policies and nationalisation. In addition, to control the rent levels in all housing units, after 1952 a series of laws (Laws no 168 of 1961, 46 of 1962, 52 of 1969) were issued (Figure 5.2). These, however, had adverse impacts, such as limited intervention from the private sector, deterioration of housing stocks, and reduced maintenance of the buildings caused by the decreasing rental income (Rageh, 1985).

Figure 5.2: Housing laws 1941 - 1971

Military Order of 1941	• Eliminated the owner's right to evict renters (except non-payment) • Fixed all the rent levels to the values of April 1941
Housing Law No 121 of 1947	• Froze rent levels
Military Order 129 of 1952	• Rent reduction by 15% for all housing units built 1944 -1952
Military Order 169 of 1952	• Tax introduced of 13.7% of all rents, including on units built before 1944
Housing Law of 1954	• Reduction of all rental units by 20%
Article 56 of 1954	• Renters right to complain about maintenance
Law No 168 of 1961	• All rents to be reduced by 20%
Nationalisation Laws of 1961	• Nationalisation of the 61 largest privately-owned properties
Housing Law No 46 of 1962	• Determined rent value as 3% of land value and 5% of construction cost
Housing Sector Socialisation Act 1964	• Total conversion from 119 private to 35 public companies
Housing Law No 52 of 1969	• Renters given right to inherit rental units • Prohibitions of side payments, advance rent, or key money

Based on Elaraby, 2003; Personal interview with A2 and A5

Before the housing development companies had been nationalised in 1961, the state subsidised public housing projects (Law No. 206 of 1951) for low-income classes (e.g. Elmasaken Elshabiya), working class (e.g. Masaken Alummal), and for the middle class. After the slums had been cleared, in 1950s, in the central areas of the city and in Cairo's suburbs, these housing units were built by 'The Reconstruction and Popular Housing', a public-sector development company, with funds obtained through the nationalisation policy. Through the use of sub-standard materials in building these units, in order to save time and money, rapid deterioration appeared in the absence of maintenance. This has led to significant transformation of the housing blocks, resulting in poorer living conditions (Abu-Lughod, 1971; Wahba, 1994; Soliman, 1996; Hanna, 1996; Arandel and Elbatran, 1997; Elaraby, 2003; Waterbury, 2014; Arnott, 2015). Moreover, the revolution had triggered a radical economic change in favour of the low-income groups through the construction of a large number of factories on the outskirts of Greater Cairo (e.g. Shubra Elkhimah, Helwan), which, in turn, had attracted rural migrants (Sims, 2000) (see Chapter 7).

In consequence of ineffective policy, Cairo has suffered tremendous agricultural land-loss in favour of housing units, such as in 'Madinat Alawqaf' (Mohandiseen), which was built on 800 hectares of agricultural land owned by the Ministry of Awqaf in 1950. However, the government was the first to start building on agricultural land. Moreover, what was initially agreed in the master plans was later overlooked in terms of the apartment towers which were supposed to be only three floors high, with the exception of the main boulevards. The governmental housing programmes were put on hold between 1967 and 1973 due to the 1967 'Six-Day War' and the decline of the economy that followed (Rageh, 1985). The situation deteriorated after the war in 1967, when over a million people relocated from the Suez Canal zone to Cairo, particularly considering that between 1965 and 1975 the housing supply of new units has decreased to less than a third compared to the earlier decade (Figure 5.3). In response to the

aggravating economic and urban crisis, the 'March 30 Programme' was undertaken in 1968 in the hope of restructuring the system through economic liberalisation. With the end of the Naser era, the society witnessed the beginning of a divided political economy (Cooper, 1982; Rageb, 1985; Personal interview with A1 and O1).

Figure 5.3: Housing policies 1952 – 1971

Policy	Outcomes
Rent Control Laws	Private sector withdrawal and reluctance of private owners to maintain existing housing stock
Nationalisation of private construction companies	Investors and foreign capital withdrawal from Egypt and increased inefficiencies in nationalised companies
Provision of subsidized public housing projects	Building 5,350 housing units for low income in Imbaba, Bastin and Elazhar; and 3060 units for middle-income in Helwan, Abasia and Maniel Building 3,000 low-quality units in Cairo to cope with housing crisis Establishment of new desert cities around Cairo (e.g. Maadi, Helwan, Mokatam, Nasr City) Unclear maintenance responsibility led to deterioration of stock and inflexible design led to significant transformation of housing blocks
The establishment of factories in Cairo	Encouraging migration to Cairo
Limiting annual investment in housing and private contract work	Major reduction in housing construction and emergence of informal settlements (e.g. Manshiet Nasser).
The establishment of cooperative housing in 1954	Huge loss of agriculture land due to building many cooperative housings in 1962 (e.g. Madinat Alawqaf).
The establishment of the High Dam	Directing all national production of steel and cement for this project had affected the production of housing units
Major reduction in public investment in housing and infrastructure due to military expenditure (Yemen and 1967 wars)	Additional reduction in housing and infrastructure investment increased the gap between supply and demand of affordable housing in existing cities and further increasing informal development The displacement of Suez Canal's resident to Cairo and major cities due to the 1967 war Land and building material prices increased by 1000% and 300% respectively

Based on Wheaton, 1979; Rageh, 1985; Soliman, 1996; Wahba et al., 2007

5.3.2. The Sadat era: 1971 – 1981

Anwar Sadat started his decade as President by promoting a constitutional democratic government in his 'October Working Paper' in 1974, proclaiming that the new economic policy of Egypt will be financed by Arab capital, using western technology and the country's resources aiming to transform the economy. This policy came to be known as the 'Alinfitah Aliqtisadi' or 'Open Door Policy' in 1975. It targeted reviving the housing market by promoting foreign investment, thus regenerating the private sector. Accordingly, the United States invested US$7.6 billion in Egypt between 1975 and 1982 alongside US$4.2 billion of military aid, making the country the second largest beneficiary of US aid after Israel. As a result of freeing the public sector from control from the top, up to 49% of private ownership was allowed

to foreigners (Waterbury, 2014). The housing sector improved significantly and residential tower blocks, modern hotels, office centres were built in Cairo during that time, along with infrastructure developments and construction of new cities (Sims, 2012).

In 1977, 'The New Towns Policy' was introduced to cope with the increasing housing demands. This laid the foundations of the '10th of Ramadan City' 60 km east of Cairo and was formalised as the 'New Communities Law No. 59 of 1979'. Following the launch of this law, the state's attention started focusing on establishing new cities rather than improving the existing housing stock in Cairo. The 'New Towns Programme' (NTP) funded the development of fifteen new towns and four satellite cities between 1977 and 1982. However, the NTP drained off the funds allocated to develop the existing cities, and was considered unsuccessful considering that it housed less than 4% of the targets by 1986. Moreover, many private companies were established to achieve rapid profits by investing in high and middle-income housing as opposed to building for the most disadvantaged groups. Furthermore, the housing market had started to favour the private ownership over the previously dominating public ownership (Cooper, 1982; Springborg, 1989; Kardash, 1992; Feiler, 1992; Zetter and Hamza, 1997; Eiweida, 2000; Waterbury, 2014).

The period after 1980 witnessed the beginning of the socio-cultural and economic segregation in Cairo with which the city is still struggling to cope. The richest 5% of Cairo's population reside in luxurious waterfront apartments or private mansions in the suburbs while the poor squatters struggle in unserviced slums (Richards, 1991; Yousry *et al*., 1998; Aref, 2004). In an attempt to provide housing for low-income residents, in 1980 the government promulgated Law 52, which assigned 33% of units in any building to be sold and the rest to be rented (Figure 5.4). However, following the implementation of Law No. 49 of 1977 foreigners purchased housing units in Cairo causing a sudden price rise which increased from 25% to 40% the price of agricultural land in periphery of the city (Waterbury, 2014).

Figure 5.4: Housing laws 1971 - 1981

Open Policy Law 106 of 1976	• Imposed building codes for high construction standards which increased building costs
Housing Law No 49 of 1977	• Determined rent as 7% of total cost; allowed foreigners to purchase units, and allowed units to be sold as condominiums
Housing Law No 49 of 1977 - Article 48	• Renters right to exchange, release, or re-rent their units without owner's permission
Law 52 of 1980	• Limited plot coverage to 60% of the total area, with land subdivision laws allocating 33% of the land for public uses
Housing Law No. 136 of 1981	• Luxury units are exempted from rent control
Housing Law No. 136 of 1981 - Article 15	• Investors given access to low interest loans provided by state agencies, and banks

Based on Elaraby, 2003

In 1976, to cope with the financial crisis after the war and to implement the Open Door Policy, Egypt negotiated with the International Monetary Fund (IMF) for a credit facility that involved adopting a Structural Adjustment Programme (SAP). As a result of the 15% reduction in subsidies for consumer goods in 1977, the country exploded in food riots and the army had to intervene to restore order. Consequently, the subsidies were reinstated. By the end of 1977, the 'Open Door Policy' had yet to produce the benefits that the government had projected. Following liberalisation, the income distribution favoured the middle- and high-income classes. Furthermore, Egyptians who were working abroad and sending part of their savings (US$2 billion in 1979) back to the country provided the main financial source for the growth of informal areas in Cairo. Requiring no bureaucratic procedures, and with the lack of affordable urban land, people started building on agricultural land (Arandel and Elbatran, 1997) (Figure 5.5).

Hoping to achieve better results than those in the country, Sadat turned his attention to external affairs and in 1978 signed 'The Camp David Accords' with the Prime Minister of Israel, for which they shared the Nobel Peace Prize. However, the treaty was not well-received by the Arab world and other opposing parties. The Sadat regime ended abruptly with his assassination in 1981, leaving behind neither a

liberalised polity nor a well-functioning economy (Cooper, 1982; Rageb, 1985; Zetter and Hamza, 1997; Sims *et al*., 2003; Ibrahim and Ibrahim, 2003; Hanieh, 2011; Nagarajan, 2013).

Figure 5.5: Housing policies 1971 – 1981

Policy	Outcomes
Post War 1973 and Open Door policy	A rise in construction materials prices due to soaring oil prices after 1973 Land prices increased as a result of Arab and foreign capital competent Construction workers flew to Gulf countries, causing a shortage in the Egyptian building workforce, which in turn increased the construction prices Egyptian remittances directed to purchase turnkey properties have encouraged private investment only in high-income groups It directed housing market to ownership tenure rather than rent to avoid maintenance cost
Stopped public housing supply in existing cities	Increased the gap between supply and demand and further encouraged informal development
Established new cities and communities around existing cities with foreign consultation	Concentrated public investments in new cities, though it did not attract high population
Encouraged private sector return to housing market	Rent control focused on housing supply for sale (high-income) with no investment in rental units Universal key money phenomenon to overcome rent control Government set a ceiling of 33% of units in any building for sale and the rest for rent, has created vacant units to avoid letting it under rent control

Based on Hanna, 1988; Wahba et al., 2007; Personal interviews with A1 and A4

5.3.3. The Mubarak era: 1981 – 2011

Hosni Mubarak was Vice-President of Egypt at the time of Sadat's death and became president in October 1981. Throughout his thirty-year regime, Mubarak implemented the 'Open Door Policy' gradually, aiming to resist the pressure from creditors, support donors and negotiate with International Financial Institutions (Nagarajan, 2013). To formulate an action plan, Mubarak assembled a closed-door economic conference in February 1982, declaring housing as one of Egypt's contemporary crises (Elaraby, 2003). In an attempt to reduce the population residing on the banks of the River Nile, he directed the governmental investments into new cities in the desert. At the time, the government engaged in mass housing production, enforced land-use restrictions, and encouraged the private sector to build social housing (Personal interviews with A1 and O14). By the mid-1980s, the government had reduced its grants for economic activities, eliminated price controls, cut corporate taxes, and empowered the private sector. This resulted in high inflation rates and housing market prices rise (Elkafrawy, 2012). At the same time, Gulf countries needed less

Egyptian migrant labour, inflation rates continued to increase, and the population continued to grow.

By the end of the 1st 'Five-Year Plan' (1982 – 1987), Egypt was moving towards an economic crisis as a result of the suspended IMF's plan in 1977, increased public sector spending, collapsed oil prices, a drop in Suez Canal incomes, higher demand for food subsidies, and reduced external aids (Soliman, 2011). However, in May 1987, Egypt agreed to adopt the IMF programme planned to cut public spending, liberalise the private sector and improve financial markets. Following the IMF programme's implementation, the 'Paris Club' of government donors decided to rearrange debt repayment, but soon afterwards the agreement failed due to concerns over local political implications (Richards, 1991).

By 1990, Egypt was facing bankruptcy without receiving benefits from its involvement in the 1991 Gulf War and dissolving half of its external debt. Soon after the adoption of the SAP and neo-liberal policies, severe consequences emerged like increased prices, reduced public sector workforce as a result of the privatisation programme, and cuts in the delivery of social services which have contributed to the increased levels of poverty – approximately 25% of the Egyptian population was poor (World Bank, 1991). In rural areas, the lowest quintile (20%) of the landowners possessed 5% of the agricultural land while the highest (20%) owned 70% (Handoussa, 1991). Moreover, Law No. 96 of 1992 abolished farmers' rights of tenure granted during Naser regime, and consequently landowners raised rents or cancelled contracts leaving hundreds of thousands unemployed and poor (Bush, 2004).

The privatisation programme became a complex system in which companies that were still owned by the public sector were turned into independent firms required to compete with the private sector. Within this system, new relations formed between public sector and business tycoons of private sector in which public funds were concentrated into

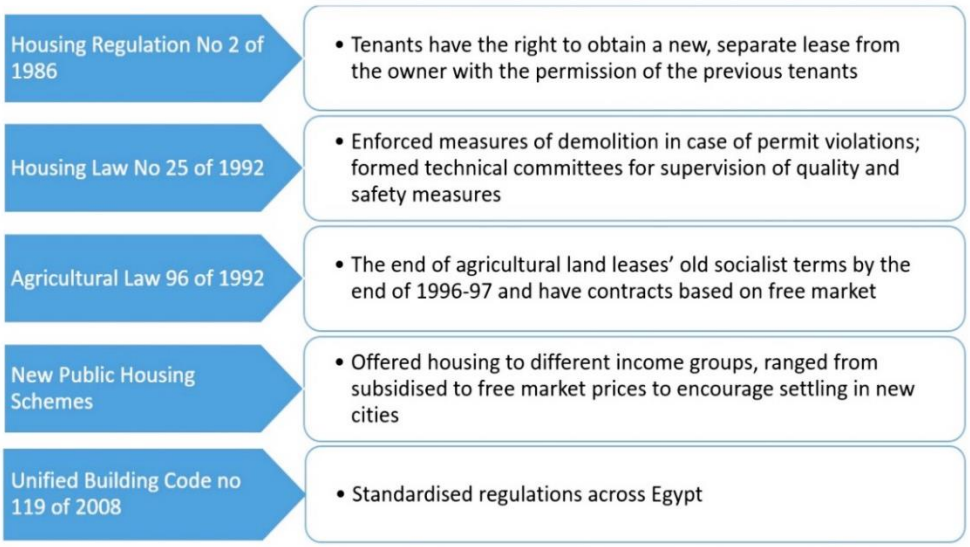
massive conglomerates (mostly family-owned) who were also cooperating with foreign investors. Hence, economic liberalisation did not lead to a competitive economy but instead generated monopolies because of owners' connections with the regime, which in turn began to influence policy (e.g. business class supported by the son of President Mubarak). The privatisation programme during the 2000s affected society in different ways – while some prospered, others were made redundant. Although international financial institutions were acclaiming Egypt's economic activities in 2008, disregarding the rising poverty, unemployment rates, and protest movements, the majority of Egyptians disproved those praises considering the harsh reality they were living (Mitchell, 1999b; IMF, 2006; The World Bank, 2010; Soliman, 2011; Nagarajan, 2013; Rutherford, 2013; Personal interviews with O7, O10 and A3).

For instance, people were struggling with the minimum wages, which in relation to the Egyptian GNP per capita, had decreased from almost 60% in 1984 to little over 19% in 1992 and to 13% by the end of 2007 of its purchasing power (Abdelhamid and Elbaradei, 2010). This whole situation gave rise to unaffordable housing, leading to the expansion of informal areas (Personal interviews with O4 and O15) despite the achievements in housing production, and the infrastructure facilities supported by the housing policies of that time (Personal interview with O3). An example of the housing production achievement during that time could be represented by the increase in the housing supply from 1.33 units per 1000 people in 1976 to 11 in 1990 (Elkafrawy, 2012). In short, the beginning of the 1980s saw the Egyptian government applying a number of political and economic strategies that led to a largely privatised public sector. During Mubarak's time, Egypt turned into a capitalist system in which the private sector was encouraged by the state to take an active role in the development of housing.

In terms of housing laws (Figure 5.6), housing regulation Decree No. 2 of 1986 empowered the tenants to obtain a new lease from the owner. With the building thriving in the 1980s, Cairo's housing market

became stagnant. The high returns from the upper-income units during the 1980s had contributed to an excess of top-end buildings, while the lower-income units had received little interest from developers. The number of buildings increased at an annual growth rate of more than 4%, twice as much as the population growth rate of 1.8%, while the proportion of vacant dwellings in Greater Cairo was nearly 15% in 1986 (Arandel and Elbatran, 1997). The rent control laws in Cairo (e.g. key money, owner occupied, and lack of maintenance) failed to achieve their regulatory purposes, and the housing market became an ownership-oriented system. It is assumed that housing policies in Egypt are generally ineffective, so they appear to be inherently unenforceable. Hence, subsequently, a system of underground or black markets developed with various forms of pricing (Personal interview with O13).

Figure 5.6: Housing laws 1981 - 1996



Based on Fahmi and Sutton, 2008

The New Rental Law No. 4 of 1996 introduced two key changes in the Egyptian housing market. First, it ended the indefinite renting inheritance, and second, it specified that renting contracts should be agreed for a definite period of time at an agreed rental, and an annual increase of 10% for the first five years, after which the landlord was supposed to repossess it. In the subsequent years, between 2001 and 2006, 81% of all the new units acquired were through rental contracts

and only 19% were for ownership. In 2008, it has been indicated that 42% of the housing units in Greater Cairo were inaccessible on the housing market due to the old rent control scheme, and this situation did not benefit the low-income groups (The Cities Alliance, 2008). As a result, residential mobility was constrained, having a large proportion of units locked out of the market, causing lack of stock maintenance, thus distorting the housing market (Personal interview with P5).

Regarding the building regulations, the most recent one was issued in 2008 – 'Building Law No. 119' – and aimed to support a suitable legal framework to improve the housing system, and to achieve sustainable development and prevent development of new slums. This law, however, did not differentiate between the various environments (e.g. Upper Egypt and Delta) taking into consideration their own specific socio-cultural aspects (Personal interviews with P9 and O16). Moreover, it failed the urban poor on account of restrictions imposed by strict laws, and expensive complicated bureaucracies. The 1st Five-Year Plan, 1982 to 1987, envisaged construction of about 800,000 housing units in urban areas, of which 55% were aimed at the low-income group, 37% at the middle-income, and 8% at the high-income group. However, these planned proportions had not been followed – for instance, luxury units accounted for 15.30% of actual completions. Out of the luxury units, 34.4% had been constructed by the public sector (Hanna, 1988; MHUUC, 2005).

In 1984, it was expected that the next 'Five-Year Plan' would deliver more housing units, after the government had vowed that every household would be able to afford buying a house. The 2nd Five-Year Plan was implemented between 1987 and 1992, building 1.5 million units, of which 903,986 were built by the private sector (63.3% for the low-income group, 24.2% for middle-income earners, and 12.5% for the high-income group). The average area of a housing unit was 70m² and its average price was about LE10,000, requiring a 20% deposit and the rest to be paid over 30 years at 4% interest (Khorshid, 2006).

The public sector constructed about 42.8% of the total units completed (Wahba *et al*., 2007).

The estimated 1.5 million units to solve the housing crisis was based on the maximum calculation of construction capabilities of all construction companies and contractors as opposed to the actual market needs (Personal interview with O1). The built units targets of the 3rd Five-Year Plan between 1992 and 1997 and the 4th Five-Year Plan between 1997 and 2002 were 519,847 and 738,238 units in urban areas respectively, of which 63.80% and 39.0% were built by the public sector (MHUUC, 2005). Before the 1990s, informal areas were generally neglected by the government, and most interventions occurred after dramatic events (e.g. social unrest in Ain Shams and Imbaba in 1990s, an earthquake in 1992). The government showed its inability to cope with the housing crisis intensified by the natural disasters, in opposition to the disaster relief services provided by the Islamists under the direction of the Muslim Brotherhood (Dorman, 2009; Singerman, 2011b). Following the pressure exercised by the slum residents and the embarrassment as a result of the Islamists' response, in 1993 the government launched a project to upgrade the informal areas (924 settlements). This effort, however, had no real impact on the informal areas expansion (Personal interview with O5).

In 1996 Mubarak introduced the 'Tushka Reclamation Project', a plan meant to help Egypt cope with its rapid population growth. This project consisted of an irrigation system bringing water from Lake Naser into the western desert in order to establish more new towns (Personal interview with O3). These towns in the desert became the focus of the 'Youth Housing' and 'Future Housing' governmental housing projects in 1996 and 1998 respectively (Personal interview with O14) (Plate 5.1) (see Chapter 8). Some argued that this initiative was a way to increase the president's and his son's publicity in preparation for the latter to rule Egypt (Personal interview with N7 and O8). These two projects aimed to construct 70,000 and 15,000 dwelling units

respectively for young families and as replacements of the informal areas (MHUUC *et al*., 2012).

Plate 5.1: Youth Housing (left) and Future Housing (right) in Cairo

Based on own fieldwork, 2015

From 1996, MHUUC had supported the 'Youth Housing' scheme as a substitute for the existing National Housing Programme. Thus, between 1995 and 2003 the 'Youth Housing Scheme' managed to build thirteen new towns across Egypt, comprising a total of 74,433 housing units (average 63, 70 and 100m²), out of which 54,054 units (72.6%) were built in Greater Cairo (Table 5.1). The state subsidised 40% (75% including the land and infrastructure) of the total cost of the project (about LE2.75 billion). Additionally, the state offered LE15,000 per housing unit (about LE1 billion) in subsidised credit in the form of soft loans, payable over 40 years at 5% interest. The 'Future Housing Scheme aimed to build 70,000 units (averaged 63m²) across three phases. During the first phase, 20,712 units were built at a cost of LE30,000 per unit (excluding land and infrastructure which had been offered for free by the MHUUD).

Table 5.1: Youth Housing Programme

New Towns	1st phase (100m²) units	2nd phase (70m²) units	3rd phase (63m²) units	Total units
Elshorok	3,516	4,665	2,063	**10,244**
Elubor	4,088	3,083	2,073	**9,244**
New Cairo	3,788	14,961	0	**18,749**
15th of May	692	0	0	**692**
6th of October	2896	2,949	4,081	**9,926**
Elsheikh Zayed	0	5,199	0	**5,199**
Total in Greater Cairo	14,980	30,857	8,217	**54,054**
Total in Egypt	20,712	34,931	18,790	**74,433**
Greater Cairo's share (%)	**72.3**	**88.3**	**43.7**	**72.6**

Based on MHUUC, 2009

In the second phase, 34,931 units were built under the previous conditions, and 18,790 housing units in the third phase. Between 1999 and 2004, the 'Future Housing Scheme' built, under similar conditions, 15,636 units (63m²) in six new towns. Beneficiaries had had to pay LE1,000 to register for the unit and obtained a soft loan of a maximum LE15,000 which they would repay in monthly instalments of LE67 over a forty-year period with an interest rate of 5% (Table 5.2) (see Chapter 8). This has later become a profitable contract between the Ministry of Housing and the private developers by changing the initial price to more than LE150,000 per unit (Afify, 2005; Wahba *et al*., 2007; Fahmi and Sutton, 2008).

Table 5.2: Youth Housing and Future Housing Programmes costs

Unit cost analysis (LE)	'Youth Housing' Programme						'Future Housing' Programme (63m²)	
	1st phase (100m²)		2nd phase (70m²)		3rd phase (63m²)			
Real cost of unit *(including infrastructure and land)*	51,500		39,000		28,500		30,000 *Excluding land and infrastructure*	
Government support	20,000	39%	14,000	36%	10,000	35%	100% *from the state and charitable donations*	
Reservation deposit	13,000	25.2%	10,000	25.6%	3,500	12.3%	1000	5.8
Payment upon receipt	3,500	6.8%	2,800	7.2%	3,500	12.3%	0	
Monthly instalment *(for 40 years)*	73		73		73		67	
Instalment every 3 months *(x12 times)*	600		600		-		0	
Soft loans	14,000		15,000		15,000		14,000	
Interest rate	6% over 40 years		5% over 40 years		5% over 40 years		5% over 40 years	

Based on MHUUC, 2015

Until 1997 the finishing of the social housing units was very rudimentary (e.g. cement walls and tiles, primary water and power lines, and wooden doors and windows) but has greatly improved with the establishment of the two programmes, along with the cost per unit (Sims, 2012). Large quantities of cheaper housing production have always been at the core of the mass subsided housing programmes in Egypt. However, it is known that this type of housing is not planned with active public participation and lacks adaptability to residents' needs. These housing programmes have been regarded as problematic in terms of future maintenance, which becomes the responsibility of the New Town's authorities as opposed to civic

responsibility (Personal interview with N3). In 1997, the Ministry of Housing (MHUUC) drafted the 'National Spatial Strategy' hoping that by 2017 it would attract some of Cairo's population in the desert, thus increasing the inhabited area from 4% to 25% of Egypt's total land mass (Goell *et al*., 2009), however by 2012 only 6%of the area was populated (MHUUC *et al*., 2012). Although, the aim was to solve the housing problems, public lands surrounding Cairo started to be sold cheaply to private developers (Personal interview with O2), which later resulted in the gated communities (Plate 5.2) constructed outside Cairo (Singerman, 2011a; Sims, 2012). These gated communities widened the gap between the poor in city and the rich in the outskirts (Personal interview with N8).

Plate 5.2: Mivida gated community in Greater Cairo

Based on own fieldwork, 2015

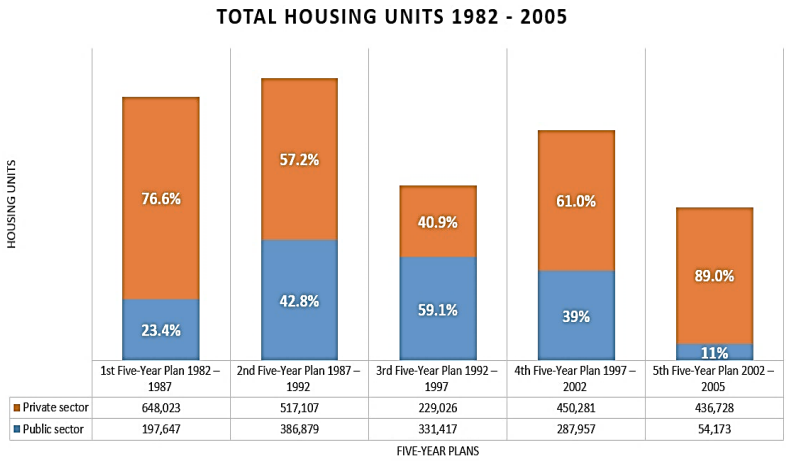
Between 1982 and 2005, 3.54 million housing units were built, out of which 1.26 million were public housing units, representing 35.6% of the formal housing units (MHUUC, 2005). The housing production for this period was three times more than between 1952 and 1982 (Afify, 2001). From 1982 till 2005, the public and private sectors together invested LE86.4 billion in housing production, of which 30.6% was invested by the government (Wahba *et al*., 2007). However, only 65.3% of the planned housing units were actually built, deepening the excess housing demand (Tables 5.3 and 5.4, and Figure 5.7).

Table 5.3: Five-Year Plans housing units

Five-Year Plan	Public sector			Private sector			Total		
	Planned	Executed	Executed as (%) of plan	Planned	Executed	Executed as (%) of plan	Planned	Executed	Executed as (%) of plan
1982 – 1987	238,750	197,647	82.8	716,250	648,032	90.5	955,000	845,679	**88.6**
1987 – 1992	600,000	386,879	64.5	900,000	517,107	57.5	1,500,000	903,986	**60.3**
1992 – 1997	802,431	331,417	41.3	263,734	189,440	71.8	1,066,165	520,857	**48.9**
1997 – 2002	229,708	287,957	125.4	918,832	450,281	49.0	1,148,540	738,238	**64.3**
2002 – 2005	150,000	54,173	36.1	600,000	436,728	72.8	750,000	490901	**65.5**
Total	**2,020,889**	**1,258,073**	**62.3**	**3,398,816**	**2,281,174**	**67.1**	**5,419,705**	**3,539,247**	**65.3**

Based on MHUUC, 2005

Figure 5.7: Public and private sectors housing units 1982 – 2005



Based on MHUUC, 2005

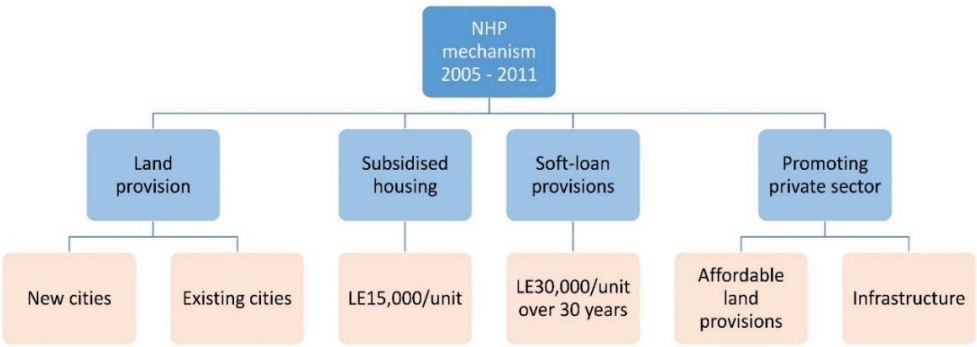
Table 5.4: Five-Year plans housing distribution per income groups

5-Year Plan	Sector	Low-income		Middle-income		Upper-middle		High-income		Total
		units	%	Units	%	Units	%	Units	%	Units
1982 – 1987	Public	145,791	73.8	44,615	22.6	6,016	3.0	1,225	0.6	**197,647**
	Private	351,578	54.3	174,677	26.9	80,164	12.4	41,613	6.4	**648,032**
	Total	**497,369**	**58.8**	**219,292**	**25.9**	**86,180**	**10.2**	**42,838**	**5.1**	**845,679**
1987 – 1992	Public	317,991	82.2	64,224	16.6	4,284	1.1	380	0.1	**386,879**
	Private	254,120	49.1	154,387	29.9	72,477	14.0	36,123	7.0	**517,107**
	Total	**572,111**	**63.3**	**218,611**	**24.2**	**76,761**	**8.5**	**36,503**	**4.0**	**903,986**
1992 – 1997	Public	273,927	82.7	55,493	16.7	1,684	0.5	313	0.1	**331,417**
	Private	74,787	32.7	95,153	41.5	43,241	18.9	15,845	6.9	**229,026**
	Total	**348,714**	**62.2**	**150,646**	**26.9**	**44,925**	**8.0**	**16,158**	**2.9**	**560,443**
1997 – 2002	Public	245,879	85.4	37,469	13.0	4,609	1.6	0	0	**287,957**
	Private	193,110	42.9	138,346	30.7	75,000	16.7	43,825	9.7	**450,281**
	Total	**438,989**	**59.5**	**175,815**	**23.8**	**79,609**	**10.8**	**43,825**	**5.9**	**738,238**
2002 – 2005	Public	45,513	84.0	4,590	8.5	3,976	7.3	94	0.3	**54,173**
	Private	154,318	35.3	194,829	44.6	75,044	17.2	12,537	2.9	**436,728**
	Total	**199,831**	**40.7**	**199,419**	**40.6**	**79,020**	**16.1**	**12,631**	**2.6**	**490,901**
Total	Public	1,029,101	81.8	206,391	16.4	20,569	1.6	2,012	0.2	**1,258,073**
	Private	1,027,913	45.0	727,392	32.2	345,926	15.2	149,943	6.6	**2,281,174**
	Total	2,057,014	58.1	963,783	27.2	366,495	10.4	101,955	4.3	3,539,247

Based on MHUUC, 2005

In 2005, Mubarak's presidential election campaign promoted a new 'National Housing Programme' (NHP) that promised to meet the growing demand for urban development in order to diminish the negative consequences of unplanned urban growth, and to build 500,000 subsidised units in the coming six years (40% in the existing cities and 60% in new cities) (Personal interview with O14) (Figure 5.8).

Figure 5.8: National Housing Programme mechanism



Based on Personal interview with O14

NHP comprised seven housing schemes: 'Units for Extremely Poor', 'Units for Rent', 'Rural Home Ownership', 'Family Home Ownership', 'Investors Housing Projects', 'Build Your Own Home', and 'Home Ownership' (Table 5.5). The agreed housing designs under the National Housing Programme (NPH) were either 63m² two-bedroom units for low-income people or 42m² units for the very poor (available through renting). The Programme was managed by different governmental bodies, namely the Ministry of Housing, Utilities and Urban Communities, Governorates, Alawqaf Egyptian Authority, and Ministry of Social Solidarity. To be eligible for the National Housing Programme, the beneficiaries had to meet certain criteria: to be between 20 and 40 years of age; not to have been offered a governmental unit or a soft loan before; not to own or rent (rent-control type) any property; and their monthly income should be no more than LE1,000 for individuals and LE1,500 for families (modified in 2008 to LE1,750 and LE2,500 respectively). The cost of these rented units

varies between LE60 – 200, for public sector ownership, and LE1100 – 5750 for private sector ownership (Personal interview with O13).

Table 5.5: National Housing Programme schemes

Sector	Tenure	Executor	Axis	Specification	The original plan (2005-2011)		The revised plan (to 09/2012)		Executed units of original plan	
					Units No.	(%)	Units No.	(%)	Units No.	(%)
Public	Ownership	NUCA & Gov.	Home Ownership	Units 63m²	199,000	39.8	327,141	53.8	220,470	110.8
		Gov.	Rural Home	Land 150m²	8,000	1.6	14,563	2.4	11,320	141.5
		Awq.	Family Home	House 2flr.	3,000	0.6	3,020	0.5	3,020	100.7
				Total	210,000	42.0	344,724	56.7	234,810	111.8
	Rent	Awq.	Units for Rent	Units 63m²	26,000	5.2	37,807	6.2	12,301	47.3
		NUCA & Gov.	Units for the Extremely Poor	Units 42m²	75,000	15.0	46,750	7.7	18,328	24.4
				Total	101,000	20.2	84,557	13.9	30,629	30.3
				Total	311,000	62.2	429,281	70.6	265,439	61.8
Private	Ownership	Individuals and families	Build Your Own Home	Land 150m²	89,000	17.8	93,756	15.4	93,405	104.9
		Investors	Investors Housing Project	Land 5-2500 feddans	100,000	20	85,050	14.0	25,511	25.5
				Total	189,000	37.8	178,806	29.4	118,916	62.9
				Total	**500,000**	**100**	**608,087**	**122**	**384,355**	**76.9**

NUCA - New Urban Communities Authority; Gov. - Governorates; Awq. - Alawqaf Egyptian Authority

Based on NUCA, Shawakat, 2014c

As a general principle, and also stated in the SDGs, the designers of housing projects and mortgage advisors have determined that, as a maximum, low-income families should allocate 20–30% of their monthly income for housing (Laquian, 1983; Schwartz and Wilson, 2008, UNSC, 2015; Simon *et al*. 2016, Habitat for Humanity, 2016). Two main factors show the success of these national housing programmes – eligibility and appropriateness. Eligibility refers to the criteria set by the government to define the beneficiaries of these programmes; and appropriateness refers to the suitability of the housing schemes to meet the beneficiaries' needs. According to these factors three scenarios are drawn – eligible and appropriate, eligible but not appropriate, and not eligible. Although, the NHP's conditions might seem reasonable, in reality it suits only 59.7% of the targeted population as the eligibility criteria have been incorrectly drawn. For example, the extremely low-income groups qualify to apply for 'Units for the Extremely Poor'. However, their monthly income (150LE) exceeds the 20-30% allocation for housing (60-125LE) (Table 5.6).

Moreover, in order to get a loan either from banks or the Mortgage Finance Fund, the minimum monthly income based on the offered units should be LE650 (from the bank) or LE1,200 (from the Mortgage Finance Fund) (Personal interview with P7); this excludes at least 40% of the informal employment (USAID, 2008; Kassem, 2014). Having been accepted under the wrong criteria, 17,000 families were unable to pay the instalment in the first years of the programme so the country rescheduled their debt (Shawkat, 2014c).

Table 5.6: National Housing Programmes eligibility vs appropriateness

Sector	Public Sector					Private Sector	
	Ownership			Rent		Ownership	
Specification	*Home Ownership*	*Rural Home*	*Family Home*	*Units for Rent*	*Units for the Extremely Poor*	*Build Your Own Home*	*Investors*
Total cost (LE)	50,000	50,000	50,000	NA	NA	70/m2 (total building cost 96,650)	110,000 – 260,000
Government support	15,000	15,000	15,000	NA	NA	15,000	10,000
Reservation deposit	5,000	5,000	5,000	8 months of rent	NA	1,050	30,000 – 55,000
Monthly instalment	160	160	160	160 - 200	60 – 125	1,350 (annually)	1,100 – 7,500
Soft loans	30,000	30,000	30,000	NA	NA	NA	10,000
Interest rate	7.5	7.5	7.5	NA	NA	0	15.0
No. of years	20	20		NA	NA	7	1 - 10
Monthly income (LE)	Eligibility and appropriateness						
High-income 1480							
Upper-middle 300							
Middle 250							
Low 200							
Extremely-low 150							

	Eligible and appropriate		Eligible but not appropriate		Not eligible *(higher or lower the NHP's range of income)*

Based on NUCA; USAID, 2008; Shawkat, 2014c

The NHP aimed to attract private sector developers to invest and build 50% of the subsidised units for low-income groups. However, these housing units were three times more expensive (LE110,000 in cash or LE260,000 over fifteen-year mortgage loans) than the original set price since the state did not impose a sale price for the units developed by the private sector (Personal interviews with P11 and P14), thus they were unaffordable to the disadvantaged. Furthermore, the quality of some of these NHP units was low due to poor building materials and construction plans (Personal interview with N6). This caused hundreds of units to collapse in areas like Haram City in 6th of October

(Mohamed, 2012; Zakaria, 2014). Additionally, due to the popularity of some of the 'Build Your Own Home' NHP the state offered numerous land parcels that lacked infrastructure and services, which caused building delays for the contractors (Personal interview with O14).

This programme faced issues such as imposed extortion on beneficiaries from thugs (e.g. 6th October), lack of transport networks between existing settlements or affordable transport means, ownership (86%) over rent programme target, high cost of building materials, small net living area for the built units (29 and 40m²), and unequal national distribution of NHP (Personal interviews with N8, A1 and P11) (Table 5.7).

Table 5.7: NHP units' geographical distribution in Greater Cairo

Geographical distribution of NHP units					
Governorate	NHP units		Families		Rate of units/ family
	Number	(%)	Number	(%)	
Cairo	64,613	14.3	2,194,354	12.7	0.029
Giza	75,577	16.8	1,422,113	8.2	0.053
Qalubia	8,700	1.9	1,043,785	6.0	0.008
Total of Greater Cairo	**148,890**	**33.0**	**4,660,252**	**26.9**	**0.09**

Based on NUCA, Shawakat, 2014c

As with the previous National Housing Programmes, actual housing construction from 2005 – 2011 was less, and counted for 76.9% of the planned projection. Most of the NHP's public and private funds were spent on housing units that went to the middle-income groups who rented them to low-income people, while at the same time tens of thousands of units were left vacant because they lacked adequate utilities, services and security.

5.3.4. The contemporary era: 2011 – 2016

January 2011 saw the beginning of various revolts against the formal political system in Arab countries. The socio-ideological Egyptian revolution of 2011 forced Mubarak to abdicate his long-term presidential seat. Before being nominated as president for the fifth

time, Mubarak promised the low-income groups the construction of half a million apartments, and when he was planning his sixth election he further promised to build one million apartments for low-income groups. One of the main motives for the 2011 Egyptian Revolution was the increasing demand for adequate housing for low-income groups (Stadnicki *et al*., 2014). Consequently, after the 2011 uprising, a new national housing programme was promised and meant to build 1 million units over five years. It was initially introduced by Mubarak's Housing Minister, Mohamed Elbaradei, aimed at people whose earnings ranged between LE1,400 and LE2,500 per month. The beneficiaries would obtain a 70m² unit for LE135,000, alongside a LE25,000 cash subsidy and be given a twenty-year mortgage loan at 7% interest (Personal interview with O14). Nonetheless, these conditions are still unaffordable for the poorest 20% of Egyptians who earn less than LE1,400 per month (Shawkat, 2014c).

However, these housing programmes' oaths have not been kept. Soon after the revolution, the country collapsed into a political crisis, causing the Supreme Council of the Armed Forces to take control over the country until elections. Two months after Mubarak's fall and under the direction of the military regime, the Minister of Planning and International Co-operation presented the 2011 proposal for a 'National Social Housing Programme' (NSHP) promising 1 million housing units for the low-income groups within five years (twice the housing production of 2005 – 2011 NHP programmes, and four times the production between 1982 and 2005). Due to austere financial problems, the military regime had to depend on two organisations to meet the required annual housing construction aim – housing co-operatives and the Awqaf (religious endowments authority), and to reduce the annual housing construction target to 150,000 units (Personal interviews with O10 and O14).

The Five-Year Plan (2012 to 2017) aims to build 150,000 units (averaging 90 to 115m²) annually, of which 100,000 will be built by housing cooperatives, mostly for low income groups in the new towns.

The religious endowments ‘Awqaf’ are aimed to build rental housing units (63m²) for low-income households in the existing cities (Personal interview with O10). Under new regulations introduced in 2015, the units are not to be sold or rented to third parties for a period of seven years, after which it could be done through the Authority (Personal interview with O13). During my fieldwork, numerous academic interviewees criticised the current NSHP for making a poor choice when relying extensively on the housing co-operatives known for targeting the middle-income groups (personal interviews with A1, A3 and A4), and as a result the NSHP plan was aborted.

Following the election in July 2012, Mohamed Morsi became the 5th president of Egypt. In 2013, Morsi’s government presented a new ‘National Housing Strategy’ (NHS) document. The programme aimed to subsidise citizens as opposed to housing units or land, to increase the rental share on the housing market, to reorganise the state administration, to promote vacant units on the housing market; to provide land with access to services and infrastructure to all social strata, to plan for economic and social development of residents in informal areas; and to involve academic researchers with housing strategies and aims (Personal interview with A4). However, the programme lacked a detailed financing plan. It only identified that the SHP will be managed by MHUUC and it will be built upon public land provided by NUCA at no cost (Personal interview with A3).

The initial funding for the construction of units was provided by Egyptian central budget allocations and the United Arab Emirates Government, which offered LE10 billion funds. As a result of insufficient funding resources and postponed funds from the United Arab Emirates, the construction targets have not been met. In an effort to meet the targets (200,000 units per year), the MHUUC enforced few regulations in June 2013: all units less than 115m² will receive soft loans, no units to be rented or sold to third parties for a period of five years (and after this only through the Authority), the state would sell the housing co-operatives the building land at a 50% discount and

would also designate 30% of the country's total building land to build housing units for the low-income groups. Additionally, the housing co-operatives obtained 1,200 feddans (1 feddan ~ 1 acre) at a below market price (between LE450 and LE1490 per m²) through an agreement with NUCA to be used in 12 new towns (Personal interview with O14).

However, due to political differences between the elected Islamist president and the secularists, Morsi was unseated in June 2013 by anti-government protests. Abdelfattah Elsisi resigned from his position as chief of the Egyptian Armed Forces in March 2014 and was elected the next president of Egypt in June 2014. During these uprisings, when the state focused on managing the political unrest, informal areas developed at almost four times the rate before the revolution. The lack of stability in the country encouraged many to build on agricultural land. By 2013, there were 83,084 encroachments in Greater Cairo on agricultural land out of a total of 751,960 encroachment cases in Egypt, representing 1,306 out of 13,500 hectares affected (Elshahat and Elkhateeb, 2013; GARPAD cited in Mosad, 2014). Between 2011 and 2014, there were numerous talks about the 'Million Units' project mentioned by many Prime Ministers – Ahmed Shafiq, Essam Sharaf, Kamal Ganzouri, Hesham Qandil, and Hazem Beblawi, but only around 13% of the intended housing units have been built (MHUUC, 2013a) (Table 5.8).

Table 5.8: NSHP progress 2010 – 2015

		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
President		**The Supreme Council of the Armed Forces**		**Mohamed Mosri**	**Adli Mansour**	**Abdelfatah Elsisi**
Execution	Planned	0	100,000	200,000	200,000	200,000
	Executed	0	39,322	33,945	58,924	136,166
Delivery	Promised to deliver	0	0	32,000	52,000	224,000
	Actually delivered	0	0	0	0	57

Based on Shawkat, 2014c

In 2014, the 'National Social Housing Programme' (NSHP) was introduced and aimed to construct one million units, to deliver

adequate housing for low-income groups and dwellers of unsafe informal areas, to prevent the development of any further slums, to stop the encroachment of the agricultural land, to increase job opportunities in the housing sector (300,000 direct jobs and 600,000 indirect job opportunities per year), and to improve the effectiveness of the housing production sector (Personal interview with O3). Since Cairo accounts for 25.1% of Egypt's population, the NSHP aims to allocate 26.7% of its total units to Greater Cairo (NUCA, 2015) (Table 5.9). By 2017, the NSHP (Plate 5.3) is targeting to build 511,000 social housing units – 300,000 units in 14 new towns and 211,000 units in all the Egyptian governorates. NUCA is set to offer serviced land for the SHP in the new towns and everywhere else by governorates, owned by the state and provided at no cost (Personal interview with O14).

Table 5.9: NSHP geographical distribution in Greater Cairo 2011 – 2015

Geographical distribution of NSHP units 2011 – 2015					
Governorate	NSHP units		Individuals		Rate of units/ family
	Number	(%)	Number	(%)	
Cairo	139,386	13.9	8,922,949	10.7	1.3
Giza	77,294	7.7	7,205,122	8.6	0.9
Qalubia	51,367	5.1	4,874,203	5.8	0.9
Total of Grater Cairo	268,047	26.7	21,002,274	25.1	1.0
Total Egypt	**1,001,685**	**100.0**	**83,667,407**	**100.0**	**0.9**

Based on NUCA, 2015

Plate 5.3: NSHP example in 15th of May, Greater Cairo

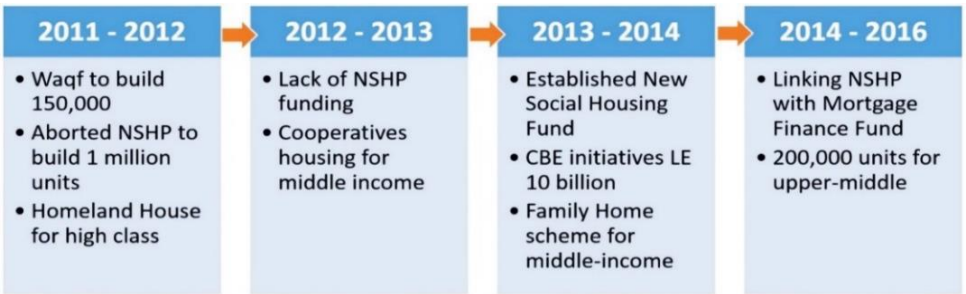
Based on own fieldwork, 2015

In addition, the infrastructure cost is to be supported by the government. It is expected that the annual subsidies for the NSHP will not exceed LE11 billion. Under Law No. 19 of 2014, future funding for

NSHP housing construction will come from the new Social Housing Fund (SHF). The SHF is planned to have a number of allocated sources of funding, including the state budget, additional profit of NUCA, 1% of the state profits from the sale of lands and all fees enforced on construction companies for breaking the construction law (Personal interview with O13). The units under construction are financed (LE30 billion) through the Central Bank of Egypt and the United Emirates fund (Personal interview with O1).

Since the Revolution in 2013, low-income housing has become a priority restated in the Social Housing Law No. 33 of 2014. The Law has established the new Social Housing Fund (SHF) that facilitated the opening of a housing financing fund in which LE10 billion were transferred from the Central Bank of Egypt (CBE) (Figure 5.9). The SHF aims to increase the housing programmes and narrow the housing gap for the poor, encourage private investment in the housing sector and improve the low-income housing allocation process. The task of promoting social housing units for ownership and target beneficiaries under the SHP is attributed to the Guarantee and Subsidy Fund (GSF) and the Housing and Development Bank (HDB). This SHF's fund is to be lent to low-income (LE1,500 and LE2,500 per month). This initiative is also available to middle-income beneficiaries (LE8,000 for individuals and LE10,000 for families per month) at 8% interest for up to twenty years. The money allocated for each of the two loan types has not been clearly defined (Personal interview with O13 and P7).

Figure 5.9: NSHP timeline 2011 – 2016



Households have to pay a down-payment of LE5,000 and enter a twenty-year mortgage contract under Mortgage Law No. 148 of 2001 at 10% fixed interest rate which was below the mortgage loans market of 12–15%. GSF provided an upfront subsidy of up to LE15,000 – 20,000 per households with a monthly income below LE1,500. However, the GSF's subsidies were limited to only 3,000 housing units due to reduced mortgage market and restrained access to sufficient budgetary resources (Personal interview with P10).

In brief, the NSHP consists of three main schemes: a housing ownership programme with low-income units of 90m²; a housing land programme with parcels of 206 to 276m² for middle-income households who cooperate to build their own units with subsidised credit in accordance to the agreed plans; and a land for high-income groups (not part of this study). The unit price is LE154,000 with a 20 to 30-year mortgage or LE135,000 cash with funding from the World Bank credit of 500 million dollars. The government subsidises every unit by between LE5,000 to LE25,000 and a deposit of LE9,000. The housing is constructed in the form of walk-up blocks of 5 to 6 storeys having up to 4 apartments on every floor. The applicant must be 21 to 50 years of age, not have benefitted from a subsided housing unit before, have a minimum of LE1000 formal income and no more than LE3500 for couples, and no more than LE2500 for single (Personal interviews with O10 and O14).

In February 2016, another project for low-income groups was announced - the 'Long Live Egypt' project – which aims to build 200,000 housing units extra in a single year, after the land and building plans have been made available. Elsisi has also declared that over the next two years, the government is planning to relocate the residents from the unsafe informal areas by building 150,000 housing units (65m²). These units, however, are proposed for rental at LE300 monthly, which is unaffordable to the majority of these residents. Although the programme is still in its infancy, the large number of planned housing units has raised many doubts. During my fieldwork,

some interviewees revealed that all these various projects are in effect part of the initial '1 Million Housing Units Programme' (disclosed with their consent). In this early stage of the housing programmes, it is difficult, if not impossible, to verify the exact situation and only time will show how many of the housing targets have been met.

The government has opened the NSHP to all income categories except the highest income quintile. However, in the lowest income quintile, the monthly instalment raises many questions about affordability, impact on beneficiaries' other basic needs, and their ability to make sustainable payments. This programme also prevents the Egyptians who work informally from accessing these housing units because they do not have work contracts (Personal interview with P7). Thus, a large number of Egyptians are not entitled to the affordable mortgage programme of GSF. It can be deduced that the NSHP eligibility criteria did not account for the socio-economic characteristics of the targeted housing beneficiaries. For example, official salary documentation is required as proof of income when applying for the NSHP housing units. Thus, the NSHP excludes a considerable proportion of the targeted low-income population, taking into account that about 40% of workforce are employed in the informal sector (Kassem, 2014). Moreover, 27.8% of the Egyptians are living under the poverty line (CAPMAS, 2015) which implies they will have limited access to this housing scheme. Furthermore, the most disadvantaged group represented by the 10% of the Egyptians, hardly qualify for any of the SHP, including the rental programmes. The consequence of this criteria is that the subsidies (approximately LE1.4 billion) and investments (in addition to nearly LE6.4 billion) are being directed to the top 60% of Egyptians; the middle- and upper-middle income, as well as the rich quintiles (Personal interviews with O14, A1 and A4).

5.4. Low-income housing allocation

For many decades, the Egyptian government has used standard applications to initiate the housing unit allocation process. When the

housing authorities publicise a housing programme, they usually advertise a standard application form to be submitted by those who meet the criteria. The applications are written in a plain standard language, and upon submission require a nominal fee. While, governmental housing programmes are targeting households with limited income, insofar as is known, there have been no efforts to target recipients based on income or wealth thresholds, or to conduct social research. It is generally required that an applicant lives or works in that governorate, and no other residential property has been previously acquired. After an application has been accepted and the payment deposited, the applicant is put on a waiting list until new units are made available when they are allocated from the waiting list. Being a long-term random process, by the time the applicant acquires the unit, his or her housing needs have often changed, and thus the allocation system seems to be failing to meet the personal needs of many beneficiaries (Own fieldwork, 2015; Personal interviews with N3 and N8).

One of the weakest points of the public housing programme is the issue of location. As a result of its dependence on available, cost-free public lands for the construction of governmental housing there are significant challenges in the efforts to match geographically supply with demand. After forty years of land allocations for public housing in addition to schools, hospitals, youth clubs, public companies, and the armed forces in and on the outskirts of Greater Cairo, there is insufficient public land, thus new housing schemes are located in remote locations. Being located in remote areas, these housing schemes limit low-income people's accessibility to employment and services. In Cairo, central location is of vital significance, particularly for the low-income population, because it provides all the necessary ways to survive. Distance creates a severe problem in terms of transport means and cost, especially with the lack of affordable transport. Practice has shown that public housing that are remotely located tend to remain unoccupied as seen in the large-scale new

towns outside Cairo where more than 50% of the housing units are vacant (Sims, 2012; Personal Interview with N5).

The high number of vacant housing units outside the city demonstrates the urgent need to re-evaluate current housing delivery practices and what went wrong with the supply of new cities, and to re-orientate planning and economic resources towards the existing, in-demand housing in Cairo. In the absence of public transport to service these areas, commuting becomes a real challenge for those who do not own a car, and although there is a private microbus system in place, it does not provide economical services because of insufficient customers and constant increase in fuel price. Low-income families struggle to live decent lives, thus they resolve to live in urban slums as it eases their accessibility to benefit from urban informal economy. It seems that Egypt is concerned with increasing the building portfolio, showcasing the high number of new cities, instead of improving the existing cities, and creating fully-functional, sustainable, and resilient few cities.

5.5. Discussion

This chapter has scrutinised successive government housing policies in Egypt, examining the development of the housing problems caused by the implementation of the various housing policies, thus seeking partially to answer two of the research questions, 'How do housing policies regulate housing mechanisms in Cairo? and 'What are the differences between the housing policies and reality?' (see Chapter 1), Egypt has a long tradition of extensive housing provision, which raises questions on the subject of the wider politico-economic role of housing (Sims, 2007; Abouelmagd *et al*., 2013). This politico-economic element of housing also entails justifications for the inconsistency in the Egyptian housing policy. The housing problem in Egypt occurred as a result of the discrepancies between the demand for low-income housing and the supply of high-income housing.

Since the revolution of 1952, Egypt has also been the testing ground for new ideas and concepts of economic development, national administration, urban and regional planning and housing management, and urban development and land reclamation. The 1952 Revolution had initiated a drastic economic challenge when rent controls were introduced to cut the cost of housing for low-income groups and when the private sector reduced its housing units targeting mostly the middle- and low-income groups. While extensive governmental housing projects offered affordable formal housing to disadvantaged families, the expansion of the two industrial areas in Greater Cairo led to a considerable inflow of rural migrants. Consequently, informal settlements on public land developed at a dramatic speed (see Chapter 7).

Moreover, the direct involvement of the government in largely subsidised public housing burdened the fiscal budget and reduced the number of units that could have been constructed to counteract the private sector's withdrawal from the housing market. The 1970s brought in the 'Open Door' economic policy which caused rising prices for land and building materials due to the free market policy. These increases, alongside the high remittances of Egyptians working abroad, caused the growth of informal settlements on agricultural land while the formal housing, limited mostly to new towns, had no effect on coping with the rapid development of the informal areas. Thus, the housing problem intensified.

The 1980s shifted the Egyptian economy to the capitalist system when the government assisted the private sector to take a leading role in the market. This was the beginning of the highly-segregated areas within Greater Cairo as a result of intensive housing development by the private sector on cheaply-purchased public lands. Developing the infrastructure and transport links in these newly developed areas, gated communities started to appear. These communities widened the inequality gap between the urban poor and the residential rich on the outskirts of Greater Cairo. The key housing issue of that time is

represented by the great number of vacant public housing units (see Chapter 7).

The 2011 Revolution caused a rapid spread of slums in the urban Cairo due to the lax security as a consequence of political instability. After decades of increasing housing issues, the state has made it a priority to provide housing subsidies in order to narrow the gap between housing prices and income. However, regardless of how many billions of Egyptian pounds have been invested by the government in subsidised housing programmes, the gap has continued to widen throughout the various politico-economic regimes. Moreover, the price of subsidised housing is increasing at a much faster rate than the beneficiaries' incomes, and some real-estate experts predict a 10 to 20% increase this year (Mansour, 2016; Personal Interview with P5). The difference between income and housing prices is mirrored by the number of households who dwell in inadequate housing, such as 1.3 million families residing in overcrowded conditions, in homes consisting of one or two rooms (CAPMAS, 2006; ECESR, 2014).

Recently, nationalism and neoliberalism have been the most thought-of ideologies in Egypt. In relation to urban development, these ideologies demand two distinct spatial modes of regulation. Nationalism in Egypt results in social-welfare development, while neoliberalism seems to exacerbate inequality by promoting redistribution of the population based on class groups. With the adoption of the 'Open Door' policy and the IMF and World Bank structural adjustment programmes, the nationalist project had largely been aborted by the 1980s. The increasingly globalised world and perceptions about the market had resulted in a different approach to urban space – neoliberalism (Ghannam, 2002; Mitchell, 2002; Elshakry, 2006; Singerman, 2011b). In 1994, the public sector managed 70% of housing construction and private companies only 30% but by 2013 the numbers had reversed. This impacts negatively

on the low-income housing market, because the private sector rarely invests in low-cost units (CAPMAS, 2013; Trew, 2014).

The effect of Sadat's 'Open Door' policy on the devalued local currency has contributed to the growth of informal housing. The housing issue was aggravated by the rapid natural population growth, the rural-urban migration, and the state's inability to offer affordable housing. Because the housing construction market has, in recent years, been the predominant supplier, 'gated communities' have been increasingly built in Cairo's outskirts, thus widening the gap between the residential rich and the urban poor (Davis, 1992; Blakely and Snyder, 1999; Landman, 2000; Low, 2003; Glasze *et al*., 2006) (see Chapter 8).

Hanna (1996) claims that an effective housing policy considers the country as a whole and does not focus on one area but accounts for the demands of the future generations. He related his statement to Cairo's rural-urban migration and the government's approach to solving the housing issue by building more new settlements while neglecting other governorates. Moreover, he criticised Egyptian housing policies for not taking into consideration the maintenance of old buildings. There is a desperate need for the housing programmes in Egypt and Cairo to be redirected in such a way to benefit the poor, based on a fair geographic distribution particularly in deprived regions as opposed to centring on Cairo and big cities which in turn require a greater level of investment. For example, NUCA's 2015-2016 budget has allocated over 57% of the total budget to nine new cities around Greater Cairo (NUCA, 2016b).

International housing policies are formulated by various international aid agencies, which can affect the way a country adopts and implements them. The most influential such agency is the World Bank, because of the large investments in the form of loans for housing and urban programmes, usually under specific conditions. On an international level, the World Bank policies have been divided into three main periods (Pugh, 2000): between 1972 and 1982, the overall

goals related to upgrading programmes, improving sites and services, and developing urban infrastructure; between 1983 and 1993, the aims were institutional reform and supporting the housing programmes; post-1993 the policy promoted public participation in upgrading informal areas, being supported by the United Nations Centre for Human Settlements (UNCHS) (now UN-Habitat) through the Cities Alliance's 'Cities without slums' initiative (Pugh, 2000; Keivani and Werna, 2001a; Abbott, 2002).

When it was proved that the European and American planning laws have been ineffective in the African context, various international organisations like UN-Habitat, the World Bank and Cities Alliance committed to reform the policies, as a precondition for effective urban planning (Habitat, 2009). Although these agencies have contributed to the changes in the Egyptian housing polices, they did not completely replace the previous polices; this has led to many policies functioning simultaneously. On a general level, Egypt has followed most of the international housing policies, which were either imposed as part of loans conditions or adopted voluntarily.

The 'Open Door' Policy in the 1970s invited aid agencies such as the World Bank and the USAID to assist Egypt develop its capital, Cairo. The efforts of these organisations were part of a bigger aim, to support the Sadat government's reconciliation with its citizens, in the wake of social unrest triggered by the urban crisis. However, most of these initiatives were ineffective due to the Egyptian approach of directing the international funds towards the new cities instead of the existing districts in Cairo. Because the international donors regarded the new cities as uneconomic, their advice was largely rejected by the Egyptian authorities. It can be inferred that the Egyptian officials were mainly interested in the foreign aid in terms of the additional funding they brought in, which they invested in the construction of the new desert cities.

The United Nations (UN) has also tried to help the Egyptian government deal with the complex problems of slum upgrading, inequity, and poverty through community participation. Although public participation became an essential element in practically all development projects, the Egyptian authorities did not engage civil society organisations in the decision-making process, and re-directed their focus from political matters to development issues. In Egypt, real participation encounters many challenges, from a greatly centralised administrative system to a political environment with hardly any tolerance for real opposition. Very limited progress in decentralising the bureaucracy and participation has been made in Egypt over the last five decades. The Naser government sought to reduce all potential centres of social power (Beattie, 1994) which led to the growth of a bureaucratic Egyptian society (Vatikiotis, 1968; Ayubi, 1995; Waterbury, 2014).

Sadat's government detached itself from the Soviet Union's influence in favour of limited economic aid from the West, whereas Mubarak's government implemented neo-liberal policies. As a result of the constant changes on the economic and political stage in Egypt, foreign aid has had limited (e.g. infrastructure, upgrading few areas) impact on the development of an effective housing policy to lead to urban upgrading. This is the case of the US$3,180 million investment received from the World Bank, out of which 81% has been used only for built environment-related projects (e.g. housing, infrastructure) as opposed to creating a sustainable housing policy that would help develop the city on a larger scale over a longer period of time (World Bank, 2013). It came as no surprise when the main donor, USAID, withdrew entirely from housing schemes in the early 1990s. In contemporary Egypt, the active international agencies are GIZ, UN-Habitat and the World Bank, and they mostly focus on improving the informal housing. Although these agencies have different interpretations and recommendations to improve Egypt's informal housing, there is an agreement in what it concerns decentralization.

5.6. Conclusion

The new housing programmes fail to assume an appropriate social orientation, thus they need to be reviewed in order to boost the beneficiaries' adaptability in the new location, which in time will increase community participation. In practice, this would require a centralised database of all people eligible for state subsidies and all the available governmental housing programmes; this would eliminate false claims and prevent subsidy leakage (see Chapter 9). This database could be managed by a governmental body at the cabinet level, which would develop an integrated plan for housing subsidies and monitor its implementation by the various funds, directorates, agencies, and ministries. To improve the current housing market, Shawkat (2014b) advises that a minimum 66% of public investment and subsidies should be redirected to rental units (with a security deposit), which is in accordance with the proportion of poor and extremely poor quintiles.

Another method that may enhance the subsidised governmental housing programmes is case-by-case field-based confirmation in order to verify each applicant's situation and determine his/her eligibility for subsidised units. The programmes should also maintain a level of flexibility in regard to beneficiaries' mobility between units that allow them to fulfil their current needs. One of the key approaches to establishing effective governmental programmes is delivering good infrastructure, social and health services, alongside good transport links with the existing settlements. Moreover, to accommodate the actual residents' needs and plan programmes for the future rather than as an end in itself, beneficiaries' and stakeholders' participation is necessary. In time, this will support the management process and will reduce some of the government's responsibilities while attaining community involvement. In view of forward planning it would be beneficial to found an independent body to monitor the housing market and determine the policies and interventions required to narrow the gap between housing prices and income which ought to be based on

public up-to-date data regarding income, and land and housing prices. Thus, Egypt needs flexible, appropriate, affordable and effective housing programmes to span across many decades, regardless the political changes.

Over the years, successive Egyptian governments have introduced housing programmes modelled on those of the rich countries. However, these programmes have been unable to provide affordable housing to most of those for whom they have been planned, where low-income groups failed to pay for even the basic standard house (Strassman, 1975; Peattie, 1982; Harris and Giles, 2003; Choguill, 2007; UN-habitat, 2016b). Although Egypt has spent billions annually to house low-income groups, over the last four decades it has been unsuccessful in providing adequate housing to millions of poor families.

For policies to be effective, they must be planned on a wealth of information, based on evidence, and quick to respond to people's real needs. Even though housing is one of Egypt's vital economic sectors, and is a key factor in any anti-poverty measure, there is no established methodology that exemplifies the main policy dimensions of housing to allow cross-referencing on specific topics for the professionals, neither to say for the common people, of whom 29.2% are illiterate (CAPMAS, 2015). Thus, it is required that Egypt drafts all-accessible housing policies in which the objectives to be clearly indicated through well-informed programmes that will help narrow the gap between the policy and reality.

In conclusion, this chapter has focused directly on answering the research question 1 – '*How do housing policies regulate the housing mechanisms in Cairo?*' and question 4 – '*What are the differences between housing policies and reality?*', and give an insight in relation to the other three questions that have motivated the study. Thus, a few ideas based on the theory of housing policy surfaced throughout the writing so far. First is the overall goal of any housing policy to provide

a strategy that will help the country deliver affordable shelter to all layers of the society, ensuring the distributive justice. Second, that housing policy has to be fair, transparent, and accountable, and has to lead to sustainable development. Next, that housing policy has to respond effectively to the effects of the rapid urbanisation. Another idea is represented by the model 'one-size-fits-all', adopted from the western cultures, which in Egypt's case, forms part of the colonial legacy. The housing policies based on these legacies have been deemed as outdated, negatively impacting on housing production in Egypt, and most particularly in Cairo. Egyptian housing policies have also been viewed as detached, in which the local culture that developed in relation to the historical, geographical, and socio-economic context has not been accounted for.

In terms of answering Q1, this chapter has shown that housing policies have regulated the housing mechanisms in Cairo through the implementation of various housing programmes, most of them being located outside the existing city, in the newly established cities. These programmes, among other aims, have had as their objective regulating the urban growth. Concerning Q4, a key difference between the policy and reality has been the outcome of the housing policies implementation. This process has not considered the cultural aspects of Cairo and adequate social services (transport, healthcare, education, etc.), resulting in low occupancy in the new cities, thus the policies have been seen as inappropriate by the citizens. By persisting in using outdated solutions, the policies have triggered a chain of complications which have contributed to the housing crisis. To overcome the unexpected outcomes, the state has directed the new cities programme towards the high-income groups, and by doing so, gated communities have been established. In time, these have contributed to a wider issue – urban segregation (cultural and socio-economic). Despite the large investments in housing production over the last seventy years, the housing crisis has not been solved, but somewhat transformed from a quantitative to a qualitative problem (see Chapter 7). Hanna's term, "*Housing without people, and people*

without housing" (1988, p7) are elucidated in the analysis of the case studies.

Following the investigation of housing policies for low-income groups and the scrutiny of the top-down approach, we now turn our attention to the housing management system. Consequently, the next chapter - 'The Administration of Shelter' examines the system of housing management in Cairo using a top-down approach - housing institutions, stakeholders, governance, urban management and planning tools such as master plans, building regulations, and mortgage as a financial support in securing housing.

Chapter 6: The administration of shelter

6.1. Introduction

Cities represent 'the lynchpin' of politico-economic and socio-cultural networks and relations (Personal discussion with David Simon, 2016). The networks and relations are dynamic in nature, and often subject to rapid and influential changes that impact greatly on the roles, structure, and growth of the main cities in a given society (Simon, 1992). As briefly outlined in Chapter 5, it is clear that various practices influence housing development differently and require constant changes to standards and policy. These changes, undertaken by the various governments, aim to formulate effective multi-institutional frameworks. One such example is represented by the numerous applications of housing policy, which require strong partnerships between the governmental authorities, infrastructure agencies, private sector, associational life and households.

Institutions play a vital role in establishing social connections while influencing the relationships between organisations; they formulate norms and legal systems; and they have great effect upon social and economic growth. However, beside the formulation of policies, the quality and commitment to the implementation of those policies is equally important (Coase, 1960; Pugh, 1996). Institutions are defined by their broad sets of structures, organisations, and laws that shape their mechanisms (Pugh, 1996). When institutions have clear visions and put in place relevant initiatives, sustained and continued progress can be achieved, without which cities cannot develop in the long term. On the contrary, when institutions are not in effective collaborations with the various organisations, the overreaching goals seem to collapse. For instance, urban planning institutions responsible for large-scale project implementation are restricted to operate in accordance with the state's wide-ranging agenda instead of the actual social impact, which causes the institution to be seen as an unreliable establishment (Dimitriou and Thompson, 2001).

For that reason, it is necessary to analyse the significant institutional provisions in the housing framework, especially in developing countries. For example, African countries require substantial political, institutional and thinking reform due to the scale of favouritism, corruption and oppression, particularly in relation to the role of municipal authorities, community participation, sustainable urbanisation and climate adaptation in more credible accounts of its rogue urban (WCED, 1987; Simon, 1992; 2016; Simone, 2001b; 2004; Myers, 2011; 2016; Pieterse and Parnell; 2014; Pieterse, 2013). As such, it is obvious to say that the inherited features of Cairo's local government have been inadequate concerning managerial incapacity, public finance, and different forms of corruption and promotion of political interests (Arandel and Elbatran, 1997; Sims, 2012; Personal interview with N5). In general, Egyptian urban planning has neglected the reality of urban poverty and favoured instead the interests of higher income groups (Personal interview with A1).

Housing institutions are conventionally understood as social organisations that promote the housing-related needs of society. They are also seen as the regulations and mechanisms that assist a society in its quest for adequate housing. Thus, institutions represent the organisations that implement specific laws formulated at different levels of government within the society. To understand institutions in housing requires great sensitivity to social and cultural differences, and awareness of the increasing influence of global economic forces (Giddens, 1984; Harsman and Quigley, 1991; Bardhan *et al*., 2012; Ronald and Tsenkova, 2012). This chapter, along with Appendix C, explores the system of housing management in Cairo using a top-down approach - housing institutions, stakeholders, governance, urban management and planning tools such as master plans, building regulations, land policies and mortgage as a financial support in securing housing.

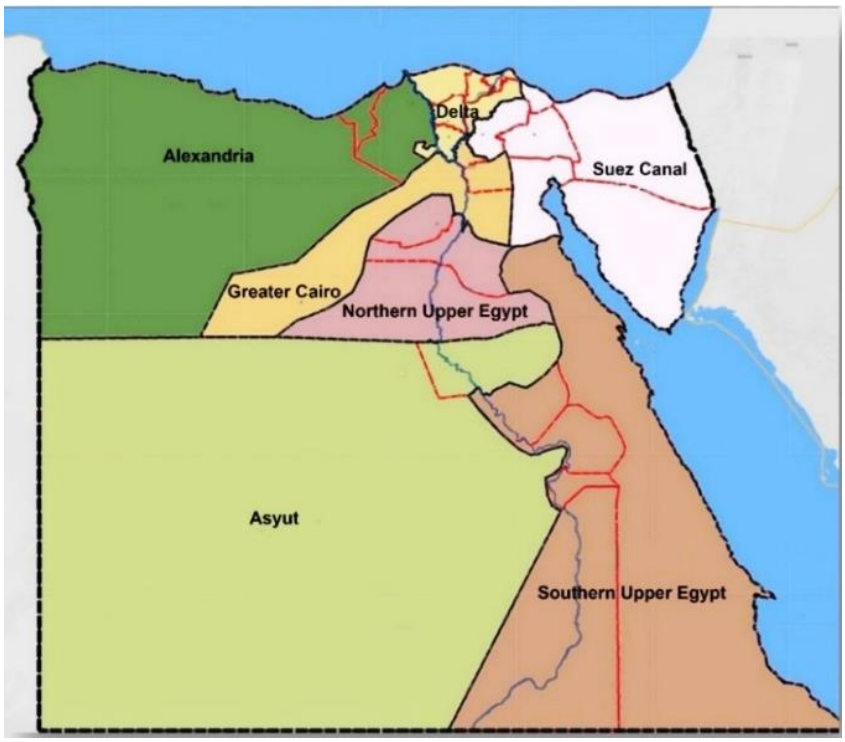
6.2. Housing institutions

"The problems of Cairo ... are the problems of Egypt"
(Palmer *et al*., 1988, p12).
"In no other country of the world does a single city dominate all aspects of national identity as does Cairo"
(Sims, 1990, p2).
"Virtually every unit of government in the country …. [is] within a hierarchy that terminates in a minister or equivalent in Cairo." (Springborg, 1999, p18).

Egypt is legendary for its ancient administration since Pharaonic times in the 3000s BCE Nowadays, however, the Egyptian administration is seen as ill-equipped, overstaffed, and corrupt (Dodson, 2011). Overall, Egypt has seven planning and economic provinces (Figure 6.1), however some ministries (e.g. Transport, Irrigation, Tourism, Health, Interior) have different divisions (MHUUC, 2013b). Each ministry divides the country in different regions in order to fulfil their sole responsibilities and manage the land area, population and resources only in their specific regions, thus lacking overall strategic insight. The lack of clear and harmonised planning and economic divisions has impacted on the institutional and regulatory frameworks, making it difficult to effectively manage the administrative borders, coordination between the development agencies and ministries, population, natural resources and wealth distribution between the different regions (Personal interviews with N1, A4, O17).

In 2016, the Egyptian state administration comprised 34 ministries, 234 organisations, and 23 departments with 6.36 million employees, whose wages comprise 26% of the total public budget (Figure 6.2) (MOP, 2014; Own fieldwork, 2015). It worth noting that Egypt is one of the countries with the largest number of ministries in the world, although it has been facing prolonged and unsolved problems (Hamdi, 2015) regarding an overarching strategic leadership in relation to responsibility and accountability (Personal interviews with N1 and O6).

Figure 6.1: Egypt economic provinces



Based on MHUUC, 2013b

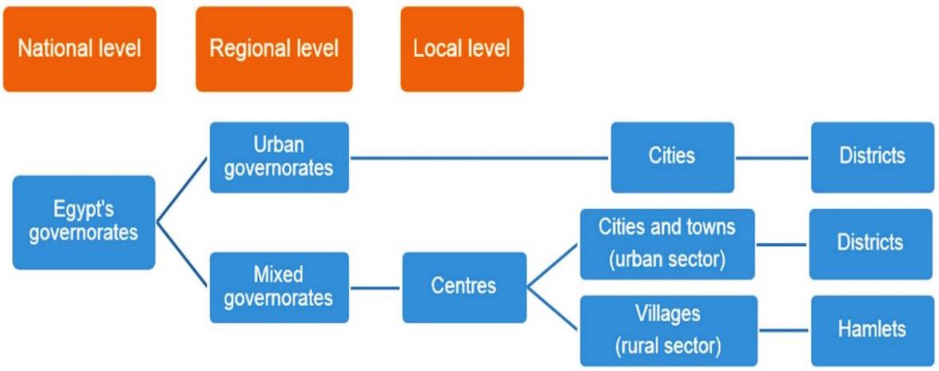
Figure 6.2: Egypt administrative organisations

Based on MOP, 2014

Egypt is split into 4 sub-national tiers of government divided into 27 governorates, of which 6 are urban governorates (Cairo being one), 187 counties, 224 cities and over 4696 villages. Figure 6.3 illustrates the Egyptian governorates in a hierarchical structure (national to local level). The country has a 2-tier system of administration in which central government has an extensive control over local governments (MLD, 2016; Personal interviews with O1, O6 and O14).

Dorman (2007) states that power in Egypt is focused in a small number of centres and the vast majority of Egyptians do not participate in matters of politics (see Chapter 4). It is worth noting that since 1952 the president has been the head of the state and promotes the idea that it represents the highest national interest (Hinnebusch, 1985; Waterbury, 2014). At present, the military controls almost all aspects of life – social, economy, and political (e.g. media, food supplies, air conditioning units, education, health, infrastructure, lands, housing) (Personal interview with N7; Kandil, 2016) (see 'Housing Stakeholders' section below).

Figure 6.3: Egypt urban governorates



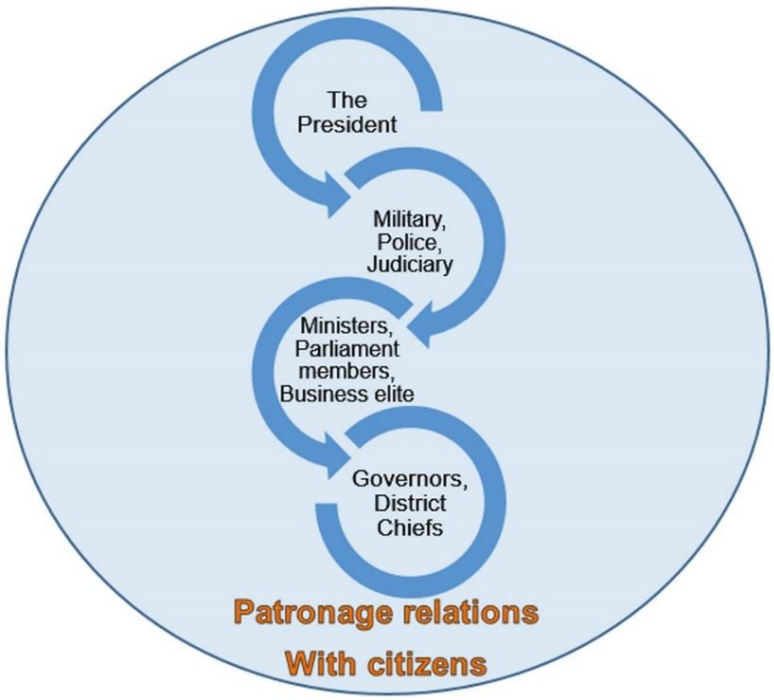
Based on personal interview with O6

The entire political structure is based on appointment from above, where the election system is applied only on three levels: presidential elections, parliamentary members and local popular councils (Personal interview with N3). Due to the highly centralised trait of power in Egypt, the central government agencies are in charge of the implementation of large-scale urban projects, which are influenced by military and business elite agendas as illustrated in Figure 6.4, while Figure 6.5 identifies the only citizen-elected bodies (Parliament, President, Governorate Popular Council) (Personal interviews with N6, A3 and P11). This figure shows that the appointing approach dominates the political spheres. In Egypt, various agencies (e.g. MHUUC, GOPP, NUCA) are involved in urban development, and interdependent authorities are common but agencies such as the National Investment Bank, ministries of Local Development and *Awqaf*

(religious endowments) have the power to alter local development projects without collaboration with other related agencies.

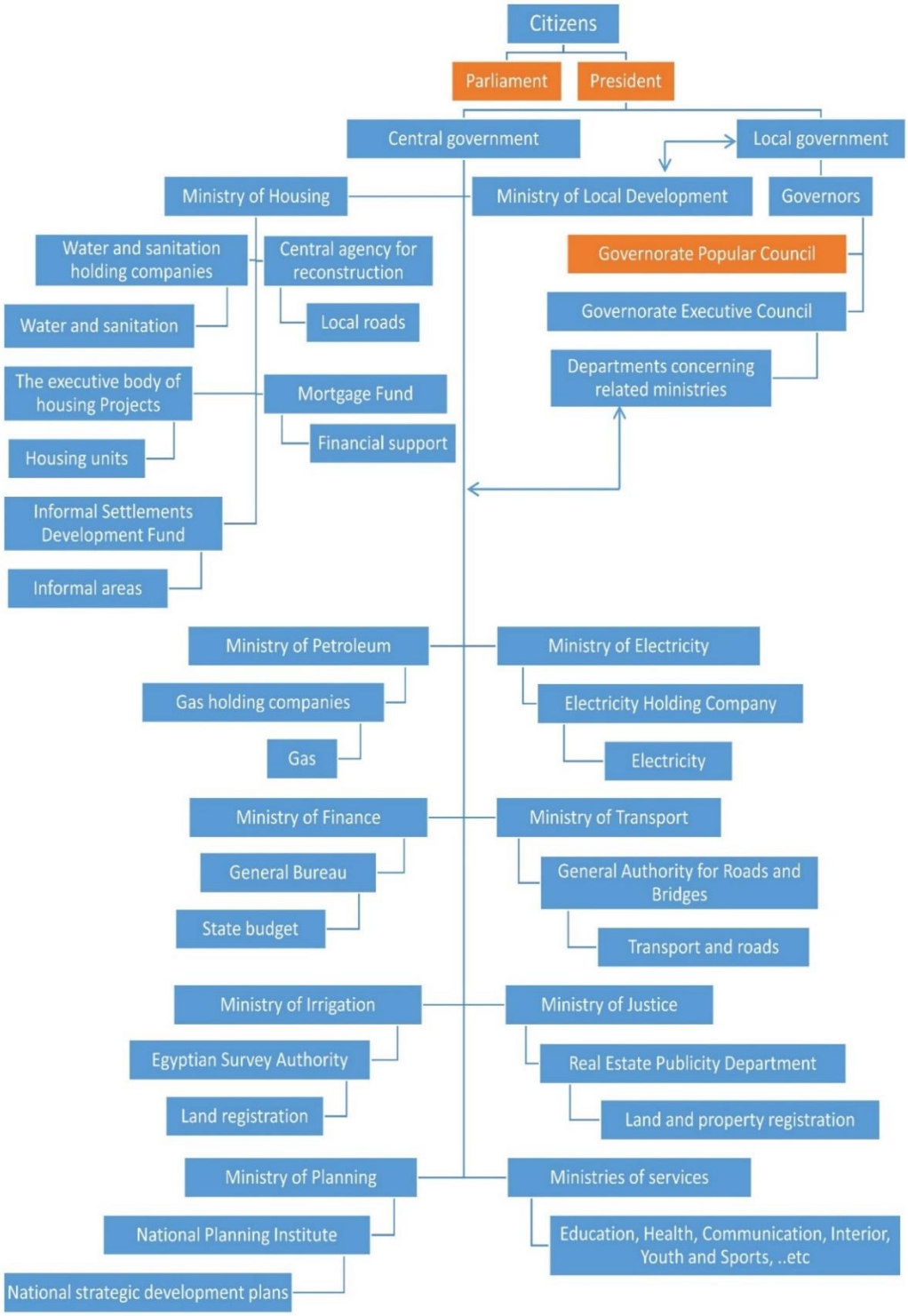
What is even more problematic for the development planning process is that it is quite complicated and requires all plans at all levels to be reviewed and approved by the Ministry of Defence (Table 6.1) (Personal interviews with O2, O4, O7, O11, O14, O17, N8 and P5). As described in Chapter 4, Egyptian governance tends to be determined by the presidency's influence rather than by institutions, in which the last is being used as a way to develop patronage systems (Personal interview with N8). Moreover, the power struggle between ministries has often caused conflicting urban planning and land management systems, particularly regarding desert land (Personal interviews with O7, O15, N1 and A4).

Figure 6.4: Circles of power in Egypt



Based on personal interviews with N6, A3 and P11

Figure 6.5: Central and local governments in terms of housing



Based on personal interview with N3

Table 6.1: Governmental planning bodies

Name of organisation			Regional planning	Master planning	Detailed Planning
Central level	Ministry of Housing	GOPP	▲	▲	▲
			▲ By law, this should not be GOPP role, but undertaken upon requests from local government		
		NUCA		▲	▲
			For new cities and communities		
	Ministry of Planning		▲		
	Ministry of Agriculture			■	■
			For all cities and villages with agricultural land within the administrative boundaries		
	Ministry of Defence		■	■	■
			For all planning levels as national security requirements		
	Ministry of Culture			■	■
			For locations or areas with historical or monumental values		
	Ministry of Awqaf			■	■
			For areas with land owned by the ministry		
	Ministry of Environment			■	
			For areas with environmental value (e.g., natural protectorate areas or parks)		
	Ministry of Tourism		▲	■	▲
			For coastal areas and tourism value		
	Egyptian Survey Authority			◊	
Local level	Governorates, department for urban planning			▲	▲
			This is the main tasks of local government when it has the capacity to perform		
▲ Prepare the plan			■ Require its approval		◊ Informed by the plan

Based on Wahba et al., 2007; Personal interviews.

With the aim of analysing the housing institutions in Cairo, I first had to identify the responsible ministries – Ministry of Planning, Ministry of Local Development, and Ministry of Housing, and investigate the administrative hierarchy of the housing institutions, the laws that govern them, their responsibilities, the key leaders, their working mechanisms, and their budgets. The housing institutions have been presented following the logical sequencing: the Ministry of Planning provides the strategic development plans of the region; the Ministry of

Local Development deals with managing the built environment of the regions; and the Ministry of Housing represents the focus of this study. This exploration of housing institutions has been included in Appendix C to provide critical contextual information which could not be accommodated here but constitutes part of a holistic analysis, while the discussion of the central and local institutions has been incorporated in this chapter.

6.3. Discussion of housing institutions

The key justifications for constant changes at central and local institutions have been claimed by the government to be the efforts to reduce the bureaucratic system and increase the state's efficiency, and accountability. This requires empowering the local administration; however, in reality, we find a highly centralised governmental system. Centralisation has been described at one level as a process in which state institutions become inefficient and unable to develop internal motivations to modernise (Bertelsmann Stiftung, 2007). Moreover, budget deficiencies combined with the political nature of the system force the orientation towards the immediate issues while ignoring long-term needs. The inconsistency generated by the ever-changing legislation creates a chaotic apparatus unable to cope with contemporary society. One such example is represented by Law No. 47 of 1978, with reference to governmental employees, which had been amended 17 times by 2014 (MOP, 2014) as a result of constant push and pulls factors between the government and citizens.

Another case is embodied by land ownership conflicts between different governmental authorities, which cause illegal seizure of these lands. In addition to excessive number of laws and amendments, and competing mandates between the different agencies, the system also suffers from overstaffing, which leads to low salaries and a high pension burden on the public purse. Paradoxically, labour costs totalled 25% of aggregate public expenditure in 2015 – 2016,

compared to the 10% allocated to the Governorates and Local administration (MOF, 2016b).

It could be said that underpaid public employees may be one reason for the high levels of corruption. According to the 2015 'Transparency International Ranks', Egypt was the 88th most corrupt country (out of 168) in the world, with a Corruption Perception Index score of 36, in which 100 is considered the least corrupt (Transparency International and EY, 2016). Popular beliefs regarding corrupt business elites (Kohut *et al*., 2011; Malik and Awadallah 2013) have become more than just people's perceptions due to leaked official documents since the 2011 revolution. The rising numbers of trials of businessmen and politicians (for alleged financial fraud, facilitation fees, land acquisition at unfair prices, sale of state assets at low prices, unfair competition, nepotism, imbalanced access to subsidised energy, conflict of interests, illegal funding of political campaigns, and the manipulation of the financial markets) have started to illuminate how power and money are distributed in the country. The economic regime that has emerged in Arab countries like Egypt, Tunisia, or Jordan since economic liberalisation has suppressed competition, allowing entrepreneurs related to the regime to obtain the major contracts, as well as not follow the planning laws (Owen, 2004). This is to be seen as a paradox since liberalisation promotes competition. As a result of limited democratic and transparency measures, the economic liberalisation has legitimised the symbiosis between power and money.

Considering the existing capabilities of central and local governments and their performance, urban planning regulations in Cairo are unrealistic. The general urban planning strategies are defined by MHUUC, while the legal framework of the Egyptian urban planning law allows municipalities to formulate and amend the technical planning process at local level. The existing cities come under the jurisdiction of both GOPP and the relevant municipalities, which are responsible for urban planning and local development schemes. Theoretically, this

responsibility is applied in three key planning phases: structure plan, master plan and detailed plan (including urban upgrading schemes and land sub-division schemes). In reality, municipalities cannot fulfil these responsibilities effectively due to problems of co-ordination between organisations, substantial centralisation and lack of public participation. Mega projects like Tushka, New Towns, Cairo 2050, 1 Million Units, New Suez Canal, and Egypt's New Capital City can be perceived as efforts undertaken by rulers to transform Egyptian society without engaging it in public participation sessions, though required by law. This idea has been confirmed during my fieldwork: most of the interviewed officials claimed that economic and social development can be achieved through state leadership.

Egypt is currently described as authoritarian and ineffective (Dorman, 2009; Sims, 2012; Own fieldwork, 2015). Although the state holds great power by virtue of being the main economic entrepreneur and principal employer, it is ineffective because it does not promote public participation. The absence of negotiation between the state and society leads to power becoming personalised as opposed to institutionalised, in which patrimonialism triggers informality and corruption. In this context, the national government's Minister of Local Development is expected to play a crucial part, co-ordinating different governorates while resolving disagreements between different authorities, and it comes as no surprise when this minister is unsuccessful. Egypt requires a decentralisation of the decision-making process, redirecting a part of the national revenues to local government, and engaging urban citizens in public choice-making (Campbell and Mehta, 2000).

In reality, what happens in Egypt under the term 'decentralisation' can be more accurately named as deconcentration – the governors, who by law are the leaders of the reforms, in fact are only the central government's representatives in their regions. In this context, deconcentration refers to power passed down to local representatives of the state as opposed to empowering the citizen-elected

representatives. To establish effective housing management in Cairo, the government does not need more reforms, legislations, and regulations, but an intrinsic motivation to apply refined laws at all levels while involving all stakeholders in the process.

6.4. Discussion of housing stakeholders

> *"A corporation* [government] *that fails to see itself as an instrument of all its stakeholders will probably fail to use them, and be used by them, effectively enough to survive in the emerging environment"* (Ackoff, 1999, p289).

The Project Management Institute (2004) defines project stakeholders as the individuals and organisations who are actively engaged in the project or whose interests may be impacted by the project, either positively or negatively. During development of a project, stakeholders may have varying levels of authority and responsibility. The success of a project depends upon an effective integration of all stakeholders at all phases of development and implementation. Moreover, strong partnerships among all stakeholders can be achieved through a fair top-down distribution of power reaching all stakeholders, mutual trust in meeting their responsibilities, effective communication, shared goals, and fair risks allocation among all parties (Chan *et al*., 2004; Law, 2004). The next section is a discussion some of Egypt's key housing stakeholders – the Egyptian Armed Forces, civil society and planners and architects. A detailed evaluation of these three housing stakeholders in Cairo is found in Appendix C.

The army has always been the most powerful institution in Egypt, playing a vital role in preserving its national unity and economy. Most policy-making positions in the government are filled by former military officers. Desert land reclamation empowers the Armed Forces through many laws in the form of Presidential Decrees. Thus, desert lands are owned by the Ministry of Defence, which now accounts for over 90% of Egyptian land. These lands are being used by the army to generate maximum profits, particularly when used for housing projects. It ought

to be understood that the Egyptian Army relies on the real estate market to obtain a large part of their income. This is clearly evident as the Ministry of Defence is a major contributor to national housing projects. It can be concluded that the army uses its power to gain economic benefits.

Most Egyptian NGOs are restricted by their ineffective organisational mechanisms and the state's tight control. However, a few NGOs and international organisations like GIZ benefit from financial security and powerful influence (Personal interviews with N1, N5 and N7). The state allows some NGOs and foreign aid organisations to have an important presence in informal areas to increase people awareness and provide information and infrastructure services (Personal interviews with A5 and O10). They are actively involved in offering social, economic, and political support, filling the gap left by the Local Popular Councils (LPCs) (see Appendix C).

This study fieldwork has investigated how Cairenes perceive NGOs and international organisations. The majority of my interviewees (76% in Manshiat Naser and 65% in Maspero Triangle) indicated by answering Q97 – Q100 that NGOs and international development organisations visit them on a regular basis but the interviewees have seen no improvement, causing the citizens to become sceptical about such organisations (see Appendix E). In contrast, some people have claimed they learnt more about their rights from NGOs visits. The main idea is that people want something tangible, something NGOs are unable to offer, thus the lack of trust on the citizens' part. To gain people's trust and support, NGOs need to be more strategic in the way they deal with civil society, informing people about their real capabilities as opposed to explaining their ambitions.

Architects and planners are bound to work within two frames of mind: the formal, represented by the building regulations (codes and specifications) and the informal, characterised by the socio-cultural context in which the building will be constructed (social analysis).

However, in practice, the formal framework seems to dominate the informal (Abdelmonem, 2016; Personal interview with P12). The experience has shown that designs promote and reflect professional decisions, while the users (particularly the poor) have no input in the design process. Moreover, in Egypt architectural firms win projects without having experienced or investigated the users' needs (Personal interview with P4).

Western styles are ingrained in the Egyptian training system, which lacks design principles based on indigenous traditions and heritage (Personal interview with A4). 'International' designs prove inadequate when trying to accommodate Cairo's most disadvantaged groups, and current practices resolve to offer the basic shelter. In contrast, homes became utopian places for the high-income groups (Personal interviews with N8 and A2).

The new planning of Cairo gives the impression of a universal modern architecture that could be applied anywhere, as opposed to an authentic urban development plan that complies with the socio-cultural and economic factors of Cairenes (see 'Master plans' section below). The discrepancy between the policy and reality in the urban form of Egypt has widened the gap between the urban facilitators and users. Egypt needs well-equipped urban practitioners in order to respond meaningfully and effectively to urbanisation (Personal interview with A3). The gap between what is being learnt in universities and the urban realities needs to be closed.

6.5. Urban management of Cairo

"Today's cities no longer make sense. Maybe they should not make sense" (Schwarzer, 2000, p.127)

'*Chaos*' has become a term even Egyptians use to describe contemporary Cairo. It is metaphorically reproduced in the foreign as well as the domestic media, academic papers, and city plans to imply disorder (Singerman, 2011a). However, chaos and order are dual perspectives of modernity, which is exemplified in planning through

straight lines, precise grids, vast open squares, and grand boulevards (Bauman cited in Deuze, 2007). Colonial architecture and modernist urban planners have viewed geometric designs as signs of order, development, and a way to secure greater control over their cities (Deboulet, 2011). The colonial urban legacy forms a significant part of the national identity form in which Cairo is being redefined within the present globalisation discourse. The fast-paced global economy requires cities to market themselves in order to compete within the globalised economy (Abu-Lughod, 1971; Simon, 1992; Elsheshtawy, 2004; King, 2010; Porter, 2010; Florin, 2011).

Over the last couple of years, Gulf countries have attempted to transform Cairo into another Dubai, by investing heavily in urban development (Personal interviews with P3 and P5), a term which Elsheshtawy (2004) calls 'Dubaisation'. However, the impact has been unnoticeable. On the road to globalisation, the country has adopted a heritage manufacturing approach to promote touristic consumption (Alsayyad, 2001). This type of globalisation, here understood from the neoliberalism perspective, has specific socio-spatial implications (Roy, 2003) on Cairo's urban form. Mitchell (1999a) has argued that neoliberalism was the political ideology behind the expansion of Cairo, combined with the development of African cities that has derived from the western ideal on how cities should look like and how they should function (Rakodi, 1997b; 2002; Swilling, 1997; Beall, 1997; Simon, 1997b; 1999; Tostensen *et al*., 2001; Pugh and Potter, 2003; Simone, 2004; Myers and Murray, 2006).

In practice, this was translated into top-down technocratic urban approaches to manage underdevelopment (Cornwall, 2002a; 2002b; Own fieldwork, 2015), exemplified in the form of building regulations and master plans which did not originate from the local factors and grounds. The challenge is not only to deconstruct the western ideology domination (Chakrabarty, 2008), but also to recover the voices of the marginalised, the most disadvantaged of the population and allow them to participate in the re-development of their community.

On a local level, the urban planning system is influenced by the context within which it functions, and restricted on a wider level by the national and international forces (Watson, 2009). Thus, urban management becomes the attempt to coordinate a variety of resources with the aim of facilitating economic growth in order to enable residents meet their basic needs for shelter, access to utilities and services (Rakodi, 1991).

6.5.1. Master plans

"Egypt's relentless quest for modernity" (Tignor, 1984, p3)

Planning serves three main purposes: to operate as an instrument of justification and legitimisation; to function as a method of negotiation for the various fractions of capital; and to regulate the pressures of the dominated classes (Castells, 1978). Generally, since the 19th century, the history of contemporary city planning has been a gradual process of creation in which the planner exercised his/her omnipotent expertise to do what was best for the residents (Benevolo, 1967). However, the process of effective planning implementation has been constrained by insufficient administrative and funding resources, alongside suitable political support. The subsequent part provides a brief examination of the key master plans of Cairo in accordance to its population growth (Table 6.2).

Table 6.2: Greater Cairo and Egypt population 1947-2006

Year	Greater Cairo	Egypt	Percentage (%)
1947	3,013,000	19,090,447	15.78
1960	4,910,000	25,980,000	18.90
1966	6,211,000	32,940,000	18.86
1976	8,090,000	43,700,000	18.51
1986	10,860,000	48,200,000	22.53
1996	13,144,000	59,310,000	22.16
2006	15,628,000	72,990,000	21.41

Based on CAPMAS, 1947-2006

a) Master plan of 1956

The 1956 master plan was the first public housing plan for Cairo. It was based on a few public housing projects, emergency renovation of Cairo's overloaded sewage networks, and the development of Mohandeseen and Nasr City. The 1956 master plan, drafted from 1953, followed English town planning and introduced concepts such as 'ideal size', 'containment', 'growth development standards', and 'long-term (20-year span) planning' (Serageldin, 1985). The plan recommended that the population of Cairo be limited to 3.5 - 4.0 million, and the additional growth be redirected to satellite communities situated in the desert (Elkadi, 1992). However, the plan was not elaborated in detail. The Naser government was apprehensive about the construction of satellite cities, fearing it would reduce its administrative control over the affected population. As a result, they placed one administrative settlement to the east of Cairo (Madinet Nasr); residential settlements on the Mokattam plateau, Elmohandessine, Zeinhom, Ein Elsira, Imbaba and Amireyah; and industrial developments in the vicinity of the existing agglomeration, which later triggered the growth of informal settlements (Elkadi, 1990).

The 1956 master plan left two detrimental legacies on the built environment – it promoted integrating the rural migrants within eight industrial suburbs on existing industrial centres as shown in Table 6.3, thus enabling informal housing, and it judged old Cairo to be a historic slum. This table emphasizes the economic weight in Cairo within Egypt that increases over time through new investment and new specialised new cities. Cairo contained 42% and 27.2% of Egypt's industrial establishments and industrial labour force (UN-Habitat, 1993). It can be deduced that the plan failed to provide realistic urban development goals for Cairo, leading to the chaotic urban intricacy of today's Greater Cairo of losing peri-urban agricultural lands, attracting rural migrants and overlooked infrastructure and services (Personal interviews with O10 and A1).

Table 6.3: Cairo industrial satellite cities

Name of industrial base	Distance from Cairo (km)	Industry type
Qaha	30	Agro-alimentary
Abou-zaabal	30	Workshops for repair and maintenance of trains
Helwan	30	Copper industries
Hawamdeyah	80	Sugar factories
Birkash	80	Multiple factories
Eltebbin	80	Iron and steel plants
Shubra Elkheima	Part of Greater Cairo	Petrochemical and textile factories
Elbassatine	Part of Greater Cairo	Low-level polluting industries transferred from the old city centre
Sekkiat Mekki	Part of Greater Cairo	

Based on UN-Habitat, 1993

b) Master plan of 1970

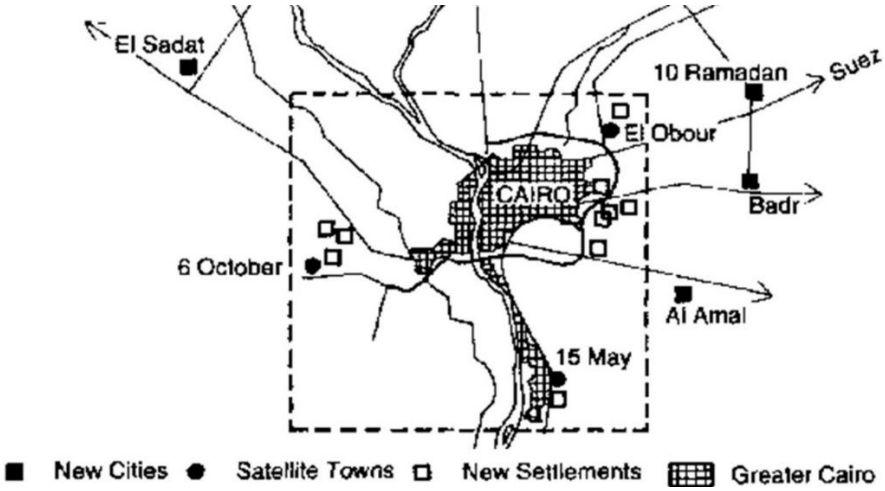
In an attempt to introduce the policy of decentralisation, a new master plan was introduced in 1970 after the failure of the 1956 version as Cairo overreached the targeted number and infrastructure collapsed across the city in 1965 (UN-Habitat, 1993). This plan proposed four satellite towns and infrastructure plan (e.g. underground, state-subsidised housing projects on a large scale, and vertical building extensions to shelter about a target of 16 million persons. The proposed plan was established with the help of the World Bank, Egyptian, French, American and British consultants (e.g. SOFRETU) (Personal interview with O14). However, the large-scale building projects have occupied much of the available urban space, which has had an adverse effect in the old Cairo and Giza historic areas, triggering the growth of informal housing (Personal interview with O2). Moreover, the urban crises had been aggravated by migrants from the war-stricken Suez Canal cities (Sims, 2012). The plan advised that the city's growth be restricted to 9.5 million, and that the 5 million additional population estimated by 1990 be redirected to the four satellite cities planned to be built in the desert (Welbank, 1969; Serageldin, 1985; Fahmy, 2007).

The main objectives of the 1970 master plan were controlling urban encroachment on farming land, building a ring road to enclose Cairo; and founding autonomous new communities in the satellite cities to

accommodate urban sprawl (Gorgy, 1985). Nonetheless, the plan was approved only in 1974 as a result of the war years (1968 – 1973) and Open Door Policy, and by then Cairo's population had reached close to 7 million (Bayat and Denis, 2000). To cope with the population growth, the '10th of Ramadan' and 'Sadat' satellite cities were established outside Cairo (Figure 6.6). During that time, Cairo's urban crises intensified and residents were forced to opt for an alternative housing, hence the expansion of slums (Personal interview with P1).

Together, however, the new cities managed to accommodate only about 900,000 residents by 2006, thus proving unsuccessful in acquiring a significant residential population (see Chapter 5). These cities became associated with luxurious gated communities in the 1990s as a consequence of property investments from upper-income Egyptians (Denis, 1997). This phenomenon is outlined in Chapters *7* and 8.

Figure 6.6: The 1970 master plan of Cairo



Based on Elkadi, 1989

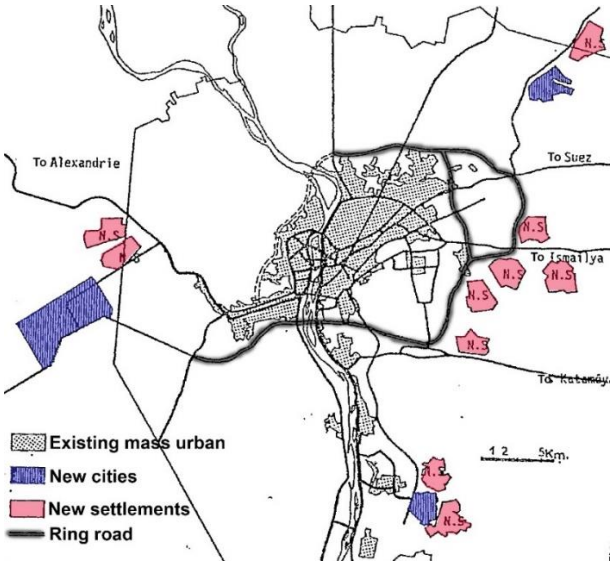
c) Master plans of 1983, 1991 and 1997

The three master plans are scrutinised together as the 1983 master plan had been amended to formulate the later master plan in 1997. The 1983 master plan was proposed by the GOPP in collaboration with the French *Institut d'aménagement et d'urbanisme de la région île de France* (IAURIF). The plan aimed to build 10 new settlements in the

desert to house Cairo's 'surplus' population of 2-3 million people, to divide Cairo into 16 self-sufficient districts of 500,000–2 million people (Figure 6.7), to target urban growth to specific development corridors, and to build a ring road to link the satellite cities to Cairo and improve traffic congestion. The plan was updated in 1997 to address old Cairo's high population density, and improve the services and employment opportunities for its inhabitants (GOPP and IAURIF, 1983; 1990). The aim of this updated master plan was to create a more compact built environment, linking all the new cities around Cairo, to enhance the efficiency of its economic centres, to increase the green areas, and to improve the infrastructure to offer better accessibility (Figure 6.8).

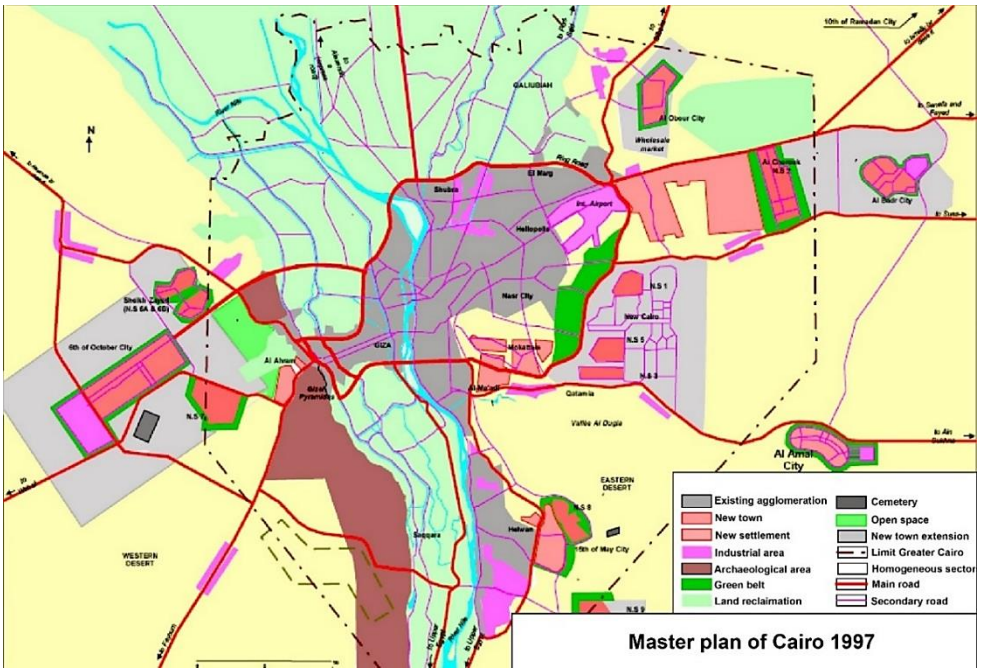
With the new settlement, 6th October, the ring road had been extended on agricultural land, causing the cancellation of the green belt project between Cairo and the new settlements on the Eastern side of Cairo, as well as altering the purpose of some of the new settlements from low- and middle-income housing to luxury housing development (GOPP *et al*., 1984; Personal interviews with O2 and P3). This master plan prompted a fundamental shift regarding the idea of new towns and land management policies in the 1990s, promoting a free market housing mechanism and providing housing for the high-income groups (Personal interviews with O14 and P11).

Figure 6.7: The 1983 master plan of Cairo



Based on Elkadi, 1989

Figure 6.8: The 1997 master plan of Cairo



Based on GOPP, 2015

d) Master plan of 2050

In the beginning of 2008, Egypt promoted a new vision for Greater Cairo – 'Greater Cairo Strategic Planning 2050', sponsored by GOPP (Personal interview with O3). Spanning 40 years, the plan is based on exceedingly optimistic expectations about Egypt's economic performance (Personal interview with A4). While historic areas are aimed to be renovated into low-density areas and open-air museums, the town centre is planned to be entirely redeveloped. Most government offices are to be relocated and clustered into one vast desert site. Business parks are to be constructed on the currently poor neighbourhoods. The slums are to be eradicated or dispersed by creating leafy corridors to invade the informal areas (Personal interviews with O10, O16, O14 and O15). The Cairo 2050 master plan represents the eternally chimeric dream of Cairo becoming a futuristic, leafy, and connected city on a western model (Plate 6.1).

Plate 6.1: Futuristic vision of Cairo in 2050

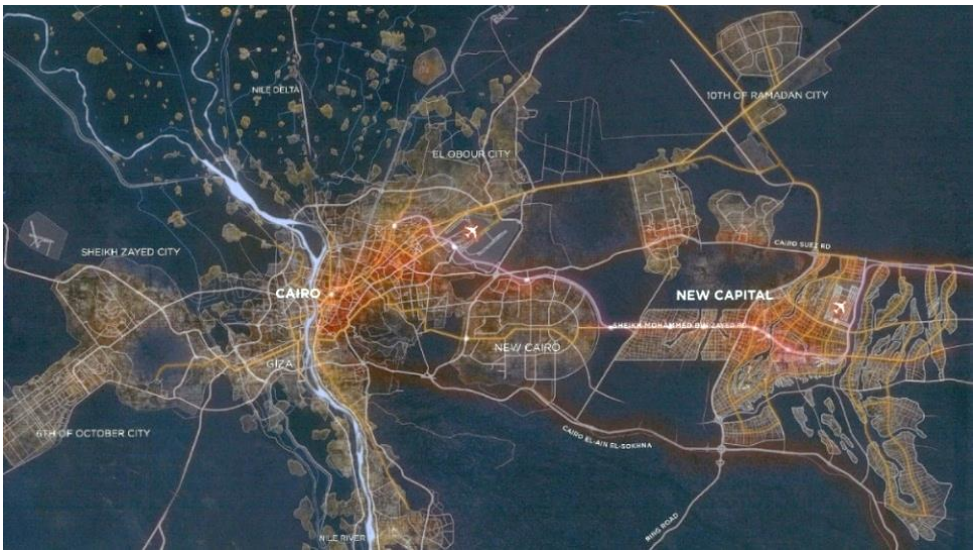
Based on GOPP, 2015

e) The New Administrative Capital (NAC)

A new large-scale project was proposed on 13 March 2015 at Egypt's Economic Development Conference (Personal interview with O3). The named city is to be situated 45 kilometres east of Cairo, midway to the seaport city of Suez in a presently undeveloped area. The proposed plan shows Cairo as a gigantic built area spanning 100km in diameter. The city is planned to become the new administrative and business capital of Egypt, containing the main governmental ministries and offices, and foreign embassies. The 700 km² area would accommodate up to 7 million people (Figure 6.9) (Personal interviews with O3 and O14). At first, the plan was supposed to be a collaboration between Egypt and the United Arab Emirates, and an initial agreement was signed in September 2015. However, due to disagreements over the final contract, in March the following year, Egypt cancelled the agreement and signed another with the China State Construction Engineering Corporation instead, which has invested US$20 billion to develop part of the project (Aldane, 2017).

This is another project focusing on expanding Cairo to a level at which the country may fail to provide water, electricity, and other scarce resources. Moreover, there is a significant consensus among the experts and economists asking for such projects (Futuristic vision) to be put on hold as there are other more urgent projects to be dealt with (Plate 6.2) (Personal interviews with A4 and P1).

Figure 6.9: NAC proposed location



Based on GOPP, 2015

Plate 6.2: NAC futuristic vision

Based on GOPP, 2015

6.5.2. Discussion of Cairo's master plans

Cairo's contemporary urban planning has been guided by three principles: demarcating the borders of the city; preserving Cairo's centrality and making its downtown more accessible; and founding new cities in the suburbs of Cairo in the hope of coping with the urban population growth. The state still aims to solve the urban crisis by hoping to 'tame the desert' and develop futuristic grandiose schemes. The vision for Cairo's urban development has often been inspired by economically-advanced cities like Paris, London or Dubai, and usually implemented by foreign architectural and engineering companies. However, the new towns in France or England were built in the proximity of the city, thus well-connected with the main source of income, services, and resources in a green belt environment. As a result, since the Egyptian new towns were built in the desert, they were soon separated from Cairo by a vast uninhabited desert, and disconnected from the local authority systems and resources.

The key reasons why Cairo's master plans have proved unsuccessful could be claimed as: the overlooked role of unplanned urbanisation; the failure of the new settlements to attract the urban population; the lack of investment in infrastructure and services; the absence of public participation; and the practice of demolition–rebuilding–densification within the existing city (Personal interviews with N3, N7, A3 and P5).

Given the local context, informality is the logical alternative to the rapid and uncontrolled urbanisation. The challenge for Cairenes was to thrive in the face of westernised policies, and to provide shelter for themselves when the government failed them due to costly highly-modernised housing solutions they put forward (Personal interviews with O2 and N8). These projects proved that modernity is susceptible to failure when it is not placed within the specific context; however, western urban development models have been applied to Cairo for decades (Personal interview with P1) (see Chapter 5).

Egypt's socio-cultural and politico-economic factors simply do not permit such models to become the features of Cairo's urban development. This, however, has yet to be acknowledged by Egyptian urban planners (Own fieldwork, 2015; Personal interview with A2). The top-down vision approach shows little regard for the residents' preferences and does not seek their participation, which results in planning that does not meet users' needs (Personal interview with O3; Own fieldwork, 2015).

My fieldwork has also confirmed the residents' resentment concerning the government's development plans, and this is discussed at length in chapters 7 and 8. Even after two revolutions, it seems difficult to rid the system of its domination by vested interests, which has led to unequal investments in the new towns instead of the overly populated informal areas. In order to achieve adequate urban development in Cairo, there is a need for a process to articulate the initiatives of public and private stakeholders that seek genuine co-operation with the aim of developing the city. Till then, Cairo will continue to dwell between 'chaos and order' (Davis, 2007).

6.5.3. Building regulations

Since the dawn of civilization, people have been preoccupied with planning urban settlements, of which Jericho is the earliest known walled city and dates back to 9000 BCE (Kenyon, 2016). Modern urban planning arose at the end of the 19th century in response to the rapid growth of the chaotic cities in Western Europe caused by the Industrial Revolution (UN-Habitat, 2009b). Planning regulation plays a significant role in shaping the social, economic, and political life of cities and towns (Simon, 1992). It regulates land use and development, provides a foundation for infrastructure planning, guarantees the rights of investors, preserves natural resources, and mitigates environmental risks (Porter, 2010; Payne, 2001a; b). Basically, planning regulation establishes which buildings are legal and which are not. Planning laws aim to prevent inappropriate land

uses, or development deemed to be against the public interest (Personal interview with O11).

In Africa, building regulations have a poor record in dealing with illegal structures, using the laws against vulnerable groups while supporting the elite groups (Payne, 2001b). This double-standard building licensing culture has created a perception that there are two laws – one for the rich and another for the poor, deepening the already-instilled segregation (Personal interview with N8). Hence, the predominant view regarding urban and regional planning in Africa holds planning as profoundly political in its aim to promote the interests of economic and political elites. Nonetheless planning is the only tool that governments have to manage the rapid urban growth. If the punitive and controlling approaches would be replaced by inclusive and sustainable planning, it would encourage equitable and economically constructive urban development in Africa (Watson, 2009; Watson and Agbola, 2013). Thus, the continent needs to reform the planning laws in order to achieve effective urban planning (UN-Habitat, 2009b).

To understand the current system of governance in Cairo, it is vital to recognise who gains and loses under the existing structures. The rent control laws of 1952, 1958, 1961, and 1962 have discouraged construction of affordable housing and renovation of the existing housing stock, and have triggered the withdrawal of the private sector (see Chapter 5). In 2008, 42% of the housing stock in Greater Cairo was estimated to have been held under rent control (World Bank, 2008c). Ironically, this governance over land law failed to help those it was planned for (Personal interview with A5).

In 1996, after 44 years, Law No. 4 freed the rental market for newly built homes and the vacant units at the time. Law No. 117 of 1970 has also been regarded as a cause of social inequity in Egypt by changing the status of agricultural land to free market, after which a large number of rural residents, being unable to keep their lands, migrated

to Cairo and started developing informal areas (Sims, 2012). Another such example is represented by Law No. 3 of 1983, which prevents local authorities from offering infrastructure services to informal housing units. However, Law No. 119 of 2008 outlines a complicated process by which informal dwellings can be formalised (Personal interview with O2). This consists of an urban development upgrading plan for a neighbourhood, which has to be approved by the government. Upon approval, any individual can appeal at the local council to have its property legalised, a process that should take up to six months according to the government. However, my fieldwork has confirmed the a priori assumption that it takes years. A representative of the local government noted that there are cases which have lasted over 10 years (Personal interviews with O11 and O12).

Out of the 4.5 million dwelling units in Cairo in 1996, only 27% were considered formal (Sims, 2012). What makes it even more challenging to register informal housing units is the absence of registered ownership documents, without which the law does not issue building permits. Besides the intricate and time-consuming process of registering informal housing under Law No. 119 of 2008, some elements of Law No. 43 of 1979 have also been perceived as inappropriate in terms of the building standards in relation to the lived reality. A few of these construction codes do not reflect the regular use patterns of households or residents' practical needs. For example, in the existing towns and villages as well as the new towns, the population density should not exceed 312 people/hectare and 238 people/hectare respectively; the new streets should have a minimum width of 10 metres; minimum lot size of 120m² and front length is 10 metres; the building height is 1.5 times the width of the road; lot coverage is limited to 60%; 33% of the land to be allocated for public uses according to land subdivision laws; and as a general rule to separate between residential and industrial areas following the land use standards (Personal interviews with O12, P4 and P12).

In reality, the density in the existing cities exceeds 500 people/hectare while in informal urban areas it exceeds 2000 people/hectare; the average street width is 6m in existing cities and 3-4m in informal areas of lot size generally 80 m²; due to the shortage and high cost of land, the land coverage in cities is usually 80%-90% and 90%-100% in informal areas; the height restriction does not meet the infrastructure efficiency target; lot widths in informal settlements is 3–6 metres; and mixed land use prevails in which residential and workspace uses are integrated in informal areas (Table 6.4) (World Bank, 2008a; Own fieldwork, 2015). On the whole, the physical manifestation of the urban building regulation does not reflect real use patterns.

Table 6.4: The urban features between policy and reality

Urban feature	Policy	Reality
Population density in existing cities (people/hectare)	312	500-2000
Population density in new cities (people/hectare)	238	
Street minimum width (m)	10	3-6
Minimum lot size (m²)	120	60-80
Front minimum lot length (m)	10	3-6
Building height (times the width of the road)	1.5	>1.5
Lot maximum coverage (%)	60	80-100
Land to be allocated for public uses (%)	33	0
Mixed land use	Not permitted	Widespread

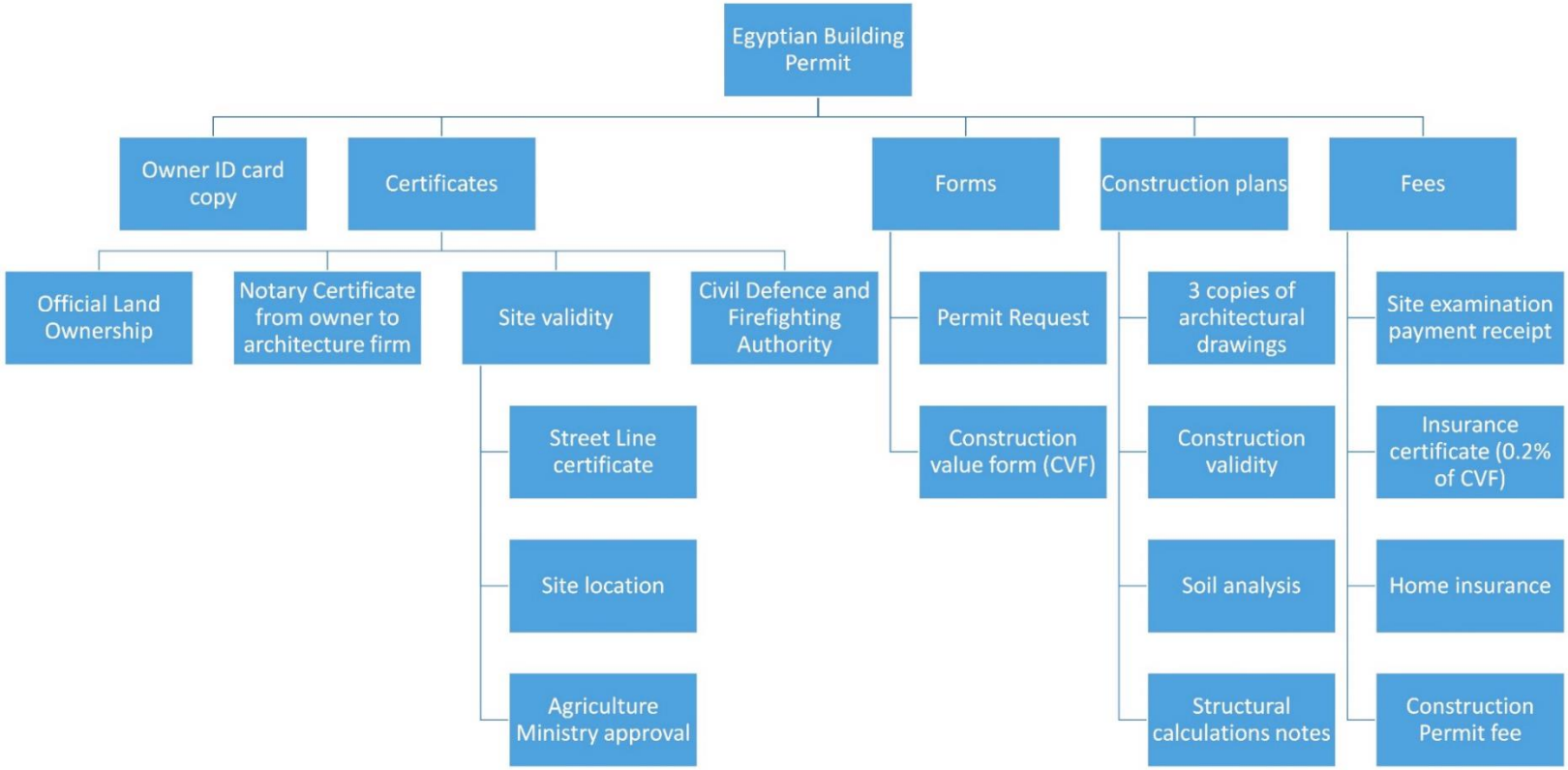
Based on own fieldwork, 2015; personal interview with O14; Sims, 2012

Another obstacle the residents face in their trial to comply with the Egyptian planning laws is obtaining the building permit which should not take more than thirty days from the date of receipt of the complete file (Personal interviews with O11 and P6). Once again, reality differs from policy as seen in the briefly outlined process. According to Building Law No. 119 of 2008 as amended, the process requires that the application be submitted to the engineering department at the local council. Among the required papers is the Site Certificate from the Planning and Building Regulation Office (Shhadet slahyeat almowqeh mn alnahyah altakhṭyṭyah) to confirm that the site conforms to the planning and building requirements and is verified against the land use and zoning plans. The application identifies the address of the site, and the borders of the land. In the new cities, this step is not required since the building permit is obtained from NUCA. Once the certificate

is issued, the applicant prepares the file for the building permit and submits it alongside the other documents (Figures 6.10 and 6.11). It shows how complicated the process of obtaining a building permit is and the bureaucracy around the required paperwork to be submitted when applying for such permits. For example, it requires presentation of an official land ownership certificate, something that the majority of people in Cairo do not have (see Appendix D).

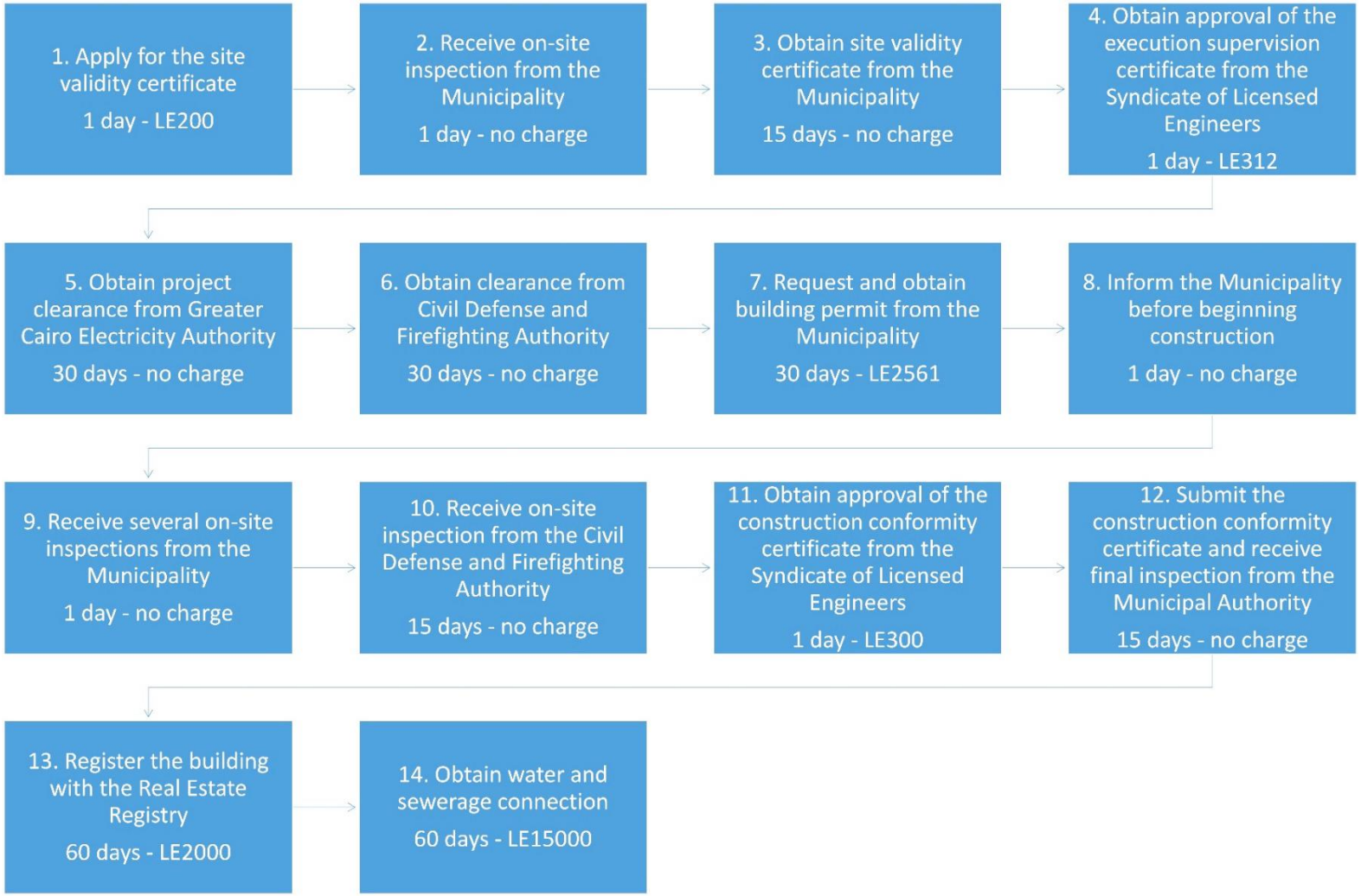
However, to submit this file, applicants need to go through long periods of waiting for each document, which in turn requires various other papers and fees. In some cases, small governmental offices fail to meet the high number of applications as a result of limited staff to deal with the demands (Personal interviews with O11, O13 and O14). For example, for any building more than four-storey height or costing over LE 1 million, there is a required home insurance fee to be paid to the 'Egyptian Consortium of Liability Insurance' (Mojmah Ashryah) to cover construction work hazards. However, there are only four 'Liability Insurance' offices (Cairo, Alexandria, Aswan and Tanta) along with 13 insurance companies to cover all Egypt (Personal interview with P10). In Cairo, only eighteen engineers deal with all the submitted applications and as a result it can take up to ten months to get the approval. In most cases, after submitting the file, the applicant is trapped within a cycle of submission, revision, rejection and resubmission between the relevant authorities. When the applicant does not follow up the permit file, it ends up in the general archive (Personal interviews with P6, P9, P10 and O12).

Figure 6.10: Building permit required documentation



Based on personal interviews and own fieldwork, 2015

Figure 6.11: Building permit procedures

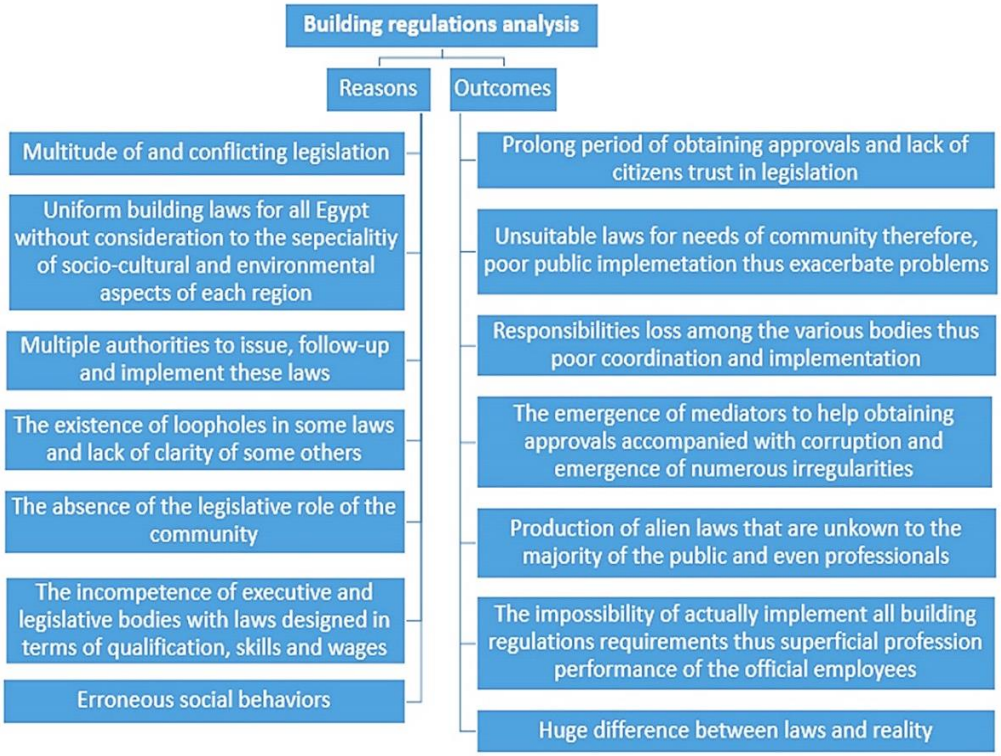


Based on personal interviews and own fieldwork, 2015

Complying with the planning laws in Egypt has also proved uneconomical for the majority of residents, who see these costly fees (stamp fee, licence fee, architectural firm's fee, building supervisory fee, and insurance fee) unnecessary when it comes to entering their property into legality (Own fieldwork, 2015). To exemplify, applicants are required to pay 0.2% insurance rate of the value of the construction to cover what might seem necessary expenses (e.g. occupancy road fee, construction waste fee, repair damaged facilities or street fee), although in most cases it is not needed, and when it is, it does not cover the real cost (Personal interview with P6). Besides being overly complicated, this process also proves costly for almost all the residents, taking into account that they hardly manage to buy their houses. In practice, owners and investors spend 6-12 months working on completing the building permit file, and the application cost can sum up to several thousand Egyptian pounds (Personal interviews with P8 and P11). As a result, a large majority of Cairo residents avoid formalising their properties.

In brief, although building regulations constitute a way of specifying the buildings' minimum standards in order to promote public health, safety and general welfare, they have become quite complicated and exhaustive. Consequently, people's housing needs have grown unfulfilled, and forced them into informality (Figure 6.12), which emphasises the difference between the reality and policy (as mentioned above). This thesis hopes to act as a plea for the Egyptian society to rethink its attitudes towards urban architecture, planning, and regulation so that residents live the life that they deserve. Therefore, once published, the thesis shall be made available to the main public libraries and distributed to the key universities, from where it can be consulted. Moreover, it will also be offered to former colleagues who work in the field and to various NGOs.

Figure 6.12: Building regulations analysis



Based on personal interviews and own fieldwork, 2015

6.5.4. Land management

In the context of this study, urban land refers to non-agricultural land use. The urban land can be used for infrastructure, transport and urban services, but this study focuses on the land used for residential purposes. It represents a key component of all spatial plans and practices meant to control the land allocation and direction of growth. The urban land is viewed from different perspectives: physical, legal, economic, political, capital, social, technological, and environmental. These perspectives, however, intersect in the idea that land is limited (Clarke, 1992; Elaraby, 2003).

Thus, in order to incorporate all the dimensions and ensure equitable and effective land and housing markets, it is imperative to have an adequate land policy. A central point of such policy is given to tenure and property rights systems (Gough and Yankson, 2000; Payne, 2001c). Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) have restated the importance of land as

a mean to improve standards of living, increase incomes, advances in technology and communication, and demographic, political, economic stability. Although, the importance of urban land has gained recognition since late 1980s, not much was published on urban land tenure, particularly in developing countries. The early attempts to categorise land tenure were supportive of statutory categories (Payne, 2001c; 2004).

According to Islamic tenure systems, land has been divided into four main groups: individually-owned land 'Mulk'; state-owned land 'Miri'; religious-foundation-owned land 'Waqf'; and collective-owned land, under tribal tenure 'Musha' (United Nations, 1973). Land policies in Egypt have experienced three phases of change. In 19th century, Ottoman Egypt was controlled by a lord-land tenure system as kings managed the state land. The first land law, Ottoman Land Law of 1858, accounted for five forms of land tenure: privately owned land, state land, endowment land, public use land, and dead land (remote and desert land). However, any of land tenure types could have become privately owned land if converted to a liveable standard. Under this law, state lands are previously owned lands which have been deserted by their owners. This was followed by the *Tapu* Law of 1858 which affirmed that state land will not be owned without a title deed. This, however, was modified in 1913, allowing state land ownership and empowered companies to buy land by paying six years of property taxes in fees. This law was soon exploited, as vast lands were transferred from state to private owners (HLRN, 2016).

Until the early 20th century, a large amount of publicly-owned land was not registered. This was rectified in 1911 to permit state-land owners register it, and permitted registered public land owners to convert agricultural lands to any other use. In 1936, King Fouad I introduced a land law, based on a French law model, that allowed people to have a title for and to own state lands if they had them for over 15 years prior to 1936. However, if the land was not being used in the first five years, the right would be withdrawn. Following this law, in 1949 Egyptian land

was divided in two categories: private and public lands, where uncultivated and un-owned lands were claimed as state lands under the Egyptian Civil Law (Abdeltawab, 1985; Elaraby, 2003).

Although various laws were passed to modify the Egyptian land situation, the country's rulers still held significant power over lands. This was the case of the 0.1% of all landowners who had ownership over 20% of the cultivated land, as opposed to farmers which represented 75% of landowners who owned only 13% (Bush, 2004). 1952 was the year of the social revolution, a time when people intended to rectify the inequalities in the Egyptian society. Thus, after the revolution of 1952, there was a radical change in the land policies with the approval of the Agricultural Reform acts that limited land ownership. Following the Agricultural Reform, 10% of the Egyptian cultivated lands were redistributed (Richards, 1980). 1970s was the beginning of market liberalisation and continued to develop during the 1990s. During those times, the Egyptian population started selling agricultural lands for construction projects (Personal interview with O2; Arandel and Elbatran, 1997). Regardless of the land reforms which encouraged private ownership, Egypt is still dominated by state control in the land sector (Personal interview with O14). This situation has contributed to a fragmented accountability due to the unclear type of tenure, use, or ownership over these public lands.

In contemporary Egypt, there are five main types of land tenure: state-owned land that can be converted to private ownership after being leased on a long-term basis 'Hikr'; private tenure (private ownership that can be estranged freely); public tenure divided into the state's public domain (cannot be estranged) and the state's private domain (estranged through usufruct, allotment, lease, or sale); religious (endowment) land tenure systems (transferred through usufruct or leasehold); and non-formal tenure categories comprising of all illegally owned lands (unauthorised land subdivisions, squatting) (Payne, 1997; 2001c; Elaraby, 2003; World Bank, 2006).

However, informal tenure can have severe negative consequences on urban development, like in the case of illegal land subdivision and squatting (Payne, 2001b), where it dominates land mechanisms in Cairo's informal areas through seizing, leasing, or buying as an alternative possession method to the complicated and costly formal tenure (Own fieldwork, 2015). This is the situation in Monira Elgdida in Cairo where the squatters improved their possibilities to dwell on illegally subdivided agricultural land by resorting to traditional systems of social organisation (Alsayyad, 1993). Hence, land and land tenure need to be seen through social, political, and economic relationships by which power and resource management are controlled. Land allocation and registration are examined below.

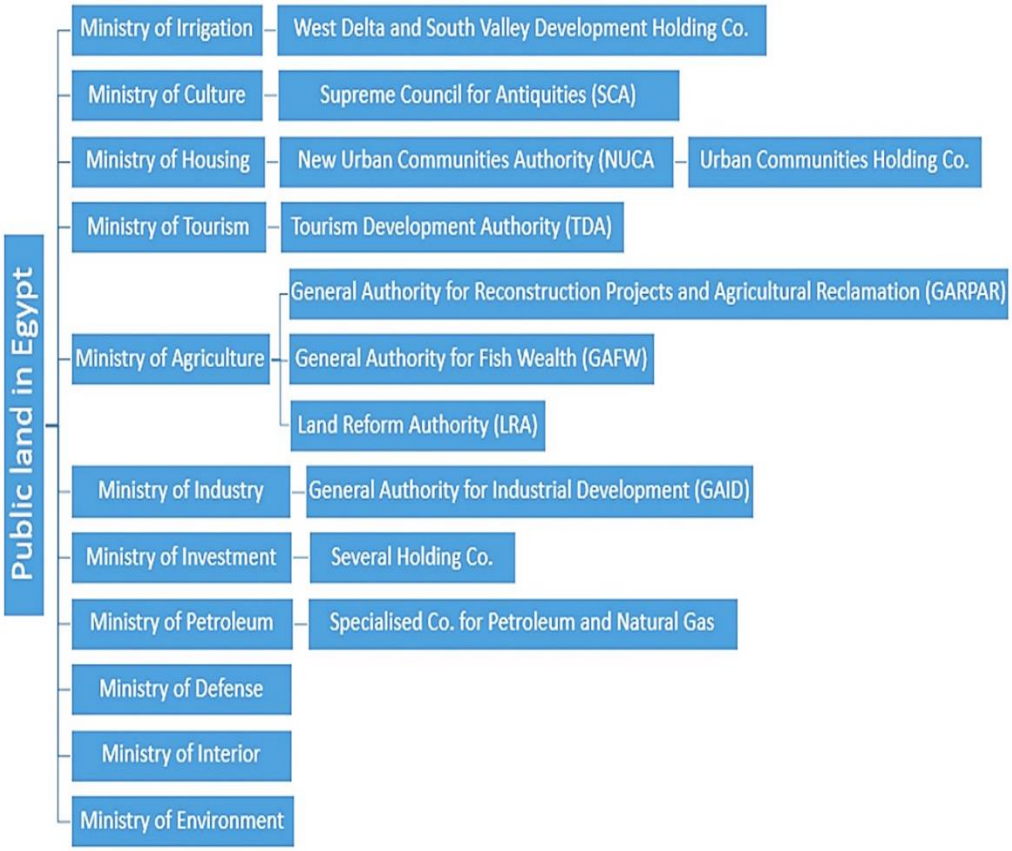
a) Land tenure system

The land tenure system is based on a combination of three main sources that overlapped over time: Islamic laws, French land law model and post-1952 republican laws. In contemporary Egypt, there are five main types of land tenure: leased state-owned land; private tenure; public tenure; religious (endowment) land and non-formal tenure lands. Where in Cairo, urban land is delivered through three main sectors: formal public, formal private and informal. The major public land suppliers are NUCA, Industry, Awqaf, Tourism, Defence and other ministries (Figure 6.13). Local governments also supply land within 2km of their settlements boundaries that represents 6% of Egypt's land, whereas central government owns the remaining 94% (Figure 6.14) (World Bank, 2006).

The land problem is not one of limited public land supply but the shortage of well-located, adequately serviced, and affordable land (Personal interview with O14). It is also due to the multiple authorities controlling the public land, first being the Ministry of Defence, followed by Ministry of Agriculture, and then NUCA (Figure 6.15). In these cases, allocating public land for private use (including investment projects) demands, according to its location, authorisation from

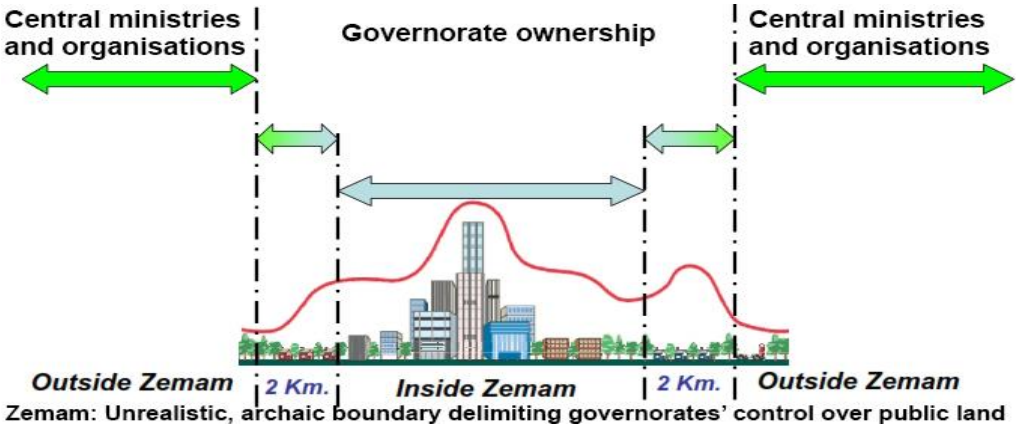
several government entities, most notably from the Ministry of Defence (Personal interviews with P2, P11 and A3). It is worth mentioning that the process of 'Takhsys' or allotment of state land can take place in the new cities and inside the cordons of existing Cairo but mostly in the former (Personal interview with O13).

Figure 6.13: Public land management in Egypt



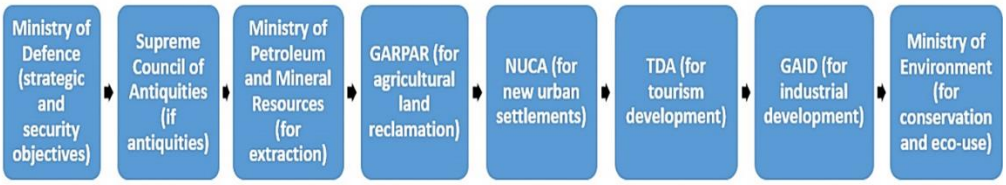
Based on World Bank, 2006

Figure 6.14: Public land boundaries in Egyptian cities



Based on World Bank, 2006

Figure 6.15: Public land management hierarchy



Based on World Bank, 2006; own fieldwork, 2015

The mechanism of Cairo's land governance has benefited a few elite groups to the detriment of the majority (Hamilton et al., 2012). Significant inequalities have occurred as a result of how institutions determine how land is being used. The current land policies trigger complicated, expensive and time-consuming procedures by which informal areas can be formalised (Personal interview with O9). Centralisation of decision-making over land has caused a decreased capacity at the local level, with most planning and land decisions being made by central ministries. Land is, thus, seen as a patronage resource by the vast number of competing institutions (Singerman, 2009). Presently, over 30 national and local institutions are involved in the management of Greater Cairo, resulting in a complex and conflicting urban planning and land management system. In particular, institutions compete for control over desert land because it is not privately owned. This contradictory and confusing urban management system has encouraged extra-legal means to accessing land. Consequently, people are using bribery and petty corruption to access land and build informally (Deboulet, 2009). This has resulted in 57% of all Cairo's properties to be unregistered (Sims, 2012) (see Land registration section).

Land management policies in Cairo have benefited the elite, who can exercise their right to the city while ignoring the contributions made by the majority of Cairenes on the built environment. These contributions, in the form of informal settlements, are seen by the state as a problem. Instead of investing in improving these areas, the country focuses its resources on more projects for the wealthy. Thus, the interests of the

elite have come to be represented in state policies, to the disadvantage of the majority of the population.

In summary, Cairo is characterised by ineffective land use policies and development control systems that make access to land and equity a key issue in urban areas that stimulates the informal land tenure system which is based on patron-client relationships. For example, there are more than 40 sometimes contradictory laws and decrees dealing with land issues (World Bank, 2006). In Cairo, the land policies and regulations have created a confusing, difficult, and inefficient system of land ownership and registration, which has affected the land market. Public land administration in Cairo, still based on impractical archaic administrative boundaries ‘cordons and zimam’, is aggravated by the outdated legislation that does not reflect demands for competitiveness and residents’ present needs. There is no coherent national land strategy to manage the public land in Cairo, nor a clearly formulated policy goals and practices for the valuation and disposition of public lands.

b) Land allocation

The allotment procedure for developers in new cities begins with the submission of a file to NUCA that contains: a LE1,000 non-refundable administration fee, a detailed project application, company-related certification, project-related documentation, and the authorisation from the General Authority for Investment (or any other authority according to the type of land use). Once approved, a 25% of total land cost processing fee is to be paid within a month; the 75% is to be paid in 3 – 5 annual instalments in the approved interest-free time-period. The additional administrative fees are not to exceed 1% of total price (or LE5,000) for larger parcels, and LE2,000 for smaller parcels (Personal interview with O14).

Within Cairo cordons, the allotment of land involves two stages: first, the developer submits a detailed project plan to the engineering department within the Governorate; when approved, the developer is

expected to obtain a building permit (different from the one in new cities, resulting in random projects). The procedure to obtain a building permit follows relatively the same practices as outlined in Chapter 6. The process of obtaining the building permit can take up to 12 months (Personal interviews with O11 and O12). When the land is regulated through Prime Ministerial Decree No 2903 of 1995, the Governorate decides the allotment rules, with Local Popular Council approval. Nonetheless, these rules are not applied on land freed by the Ministries of Defence and Interior (World Bank, 2008a; b).

For individuals, the public land allotment occurs mostly in the new cities, being almost impossible inside the cordons (Personal interview with O12). To acquire public land in new cities, there are three main practices; these are subject to the location, the price, the project scheme, and the targeted category (e.g. low-, middle-income, or expatriates). The first practice refers to a raffle or lottery 'Kuraa', where the number of applicants is far greater than the number of allocated lands. This process begins with submitting an application that costs between LE100 – 300 and paying a deposit between LE25,000 (low-income), LE100,000 (middle-income) and LE350,000 (high-income). The applicants will wait a couple of months for the draw to be taken. When the results are announced, the fortunate ones will pay 25% of the total price immediately, with the remaining 75% spread across three equal annual instalments. The second process is direct allotment 'Bayet Elwatan' – for high-income, which is only available for Egyptians living abroad to freely choose their plots and pay their cost in US dollars. The third practice is the auction or public sale, which sells the land at the highest price (Personal interviews with O14 and O13). My fieldwork has revealed that the lottery 'Kuraa' practice to acquire land is the dominant in Cairo in terms of its frequency and the number of plots allocated.

However, the supply of private land is limited due to either restrictions or large-scale real estate development projects. Moreover, dealing with the legal requirements to obtain formal land subdivision appears

unmanageable to many owners (Own fieldwork, 2015). This has resulted in the continuity of illegal land subdivision. My fieldwork has confirmed that those who subdivide land illegally disagree with some of land and buildings regulations included in the subdivision law, which is the minimum of 10m road widths and allowances for public uses, as they think they are irrelevant in the present context, which results in only 2-5m road width and no space for public use. Therefore, demolition, replacement, and conversion are the main urban land supply practices. The inappropriate land policies have triggered an increased provision of informal land which has had a negative impact on the limited agricultural land, and the irregular housing development (Personal interviews with O15 and P11; Own fieldwork, 2015).

During the study fieldwork, it has been expressed by a state official that such practices are part of a controlled mechanism to build on the polluted and less productive agricultural lands, as Egypt can replace these lands through desert reclamation projects. If indeed it proves a state mechanism, this will raise grave concerns regarding the means of securing sufficient local food for the Egyptian population. Nevertheless, informal land is seen to more affordable opportunities in comparison to the formal land, particularly for the urban poor.

c) Land registration

In Egypt, land registration has been adapted from the French system (USAID, 1982) during the colonial era, a costly process when compared to most residents' resources, and as a result is being avoided (Johannsen *et al*., 2008). Currently, Egypt has two parallel registration systems (Law No. 144 of 1946 and Law No. 142 of 1964): the Personal Registry/ Deeds System – DS (Sejl Elshakhsy), and Registry of Real Property/ Title System –TS (Sejl El'aeyny) (Figure 6.16) (Personal interview with O9). The DS is a book with an alphabetical listing of landowners, and the TS is a registration of title law that outlines a property-based system in which all issues relating to a specific property are registered in reference to that property. The

TS was introduced in 1964 with the aim of introducing a registration of title-type system across the country, but it has only been applied in rural regions (Gaynor *et al*., 2005). The efficient use of the registry has been affected by ambiguities in the existing regulation which have facilitated the introduction of competing low-cost alternatives to registration (USAID, 2010; Personal interview with P2).

In reality, both procedures DS and TS are slow, complicated, expensive, and at times inconsistent, discouraging those who are interested in registration (Own fieldwork, 2015). Moreover, DS is only a Government index of the deeds, and does not represent proof that the parties were authorised to undertake the transaction, and does not in itself confirm title to the property. It only accounts that the particular transaction has taken place. Title systems register information about particular parcels or properties, and are recognised as the only legal record of ownership or rights to the property.

Figure 6.16: Deeds and title systems

	Deeds System	Title System
Advantages	Less expensive as it could cover more territory with fewer resources	Systematically brings large number of properties into system
	Organised records will speed searches and transactions	Efficiently regularise title to large number of properties
	Could be first step in eventual conversion to Title System	Public might perceive higher degree of security than Deeds System
		Opportunity for fresh start with public
Disadvantages	No improvement of the quality of information in the registry	More expensive as it would cover a smaller area with limited resources
	No immediate increase in number of properties in the system	Risk of not using the register even after conversion
	Number of properties in the system only increases in the long run if people begin to use the system	Risk of further deterioration of credibility if conversion is not well implemented

Based on Menelaws et al., 2005; Personal interview with O9

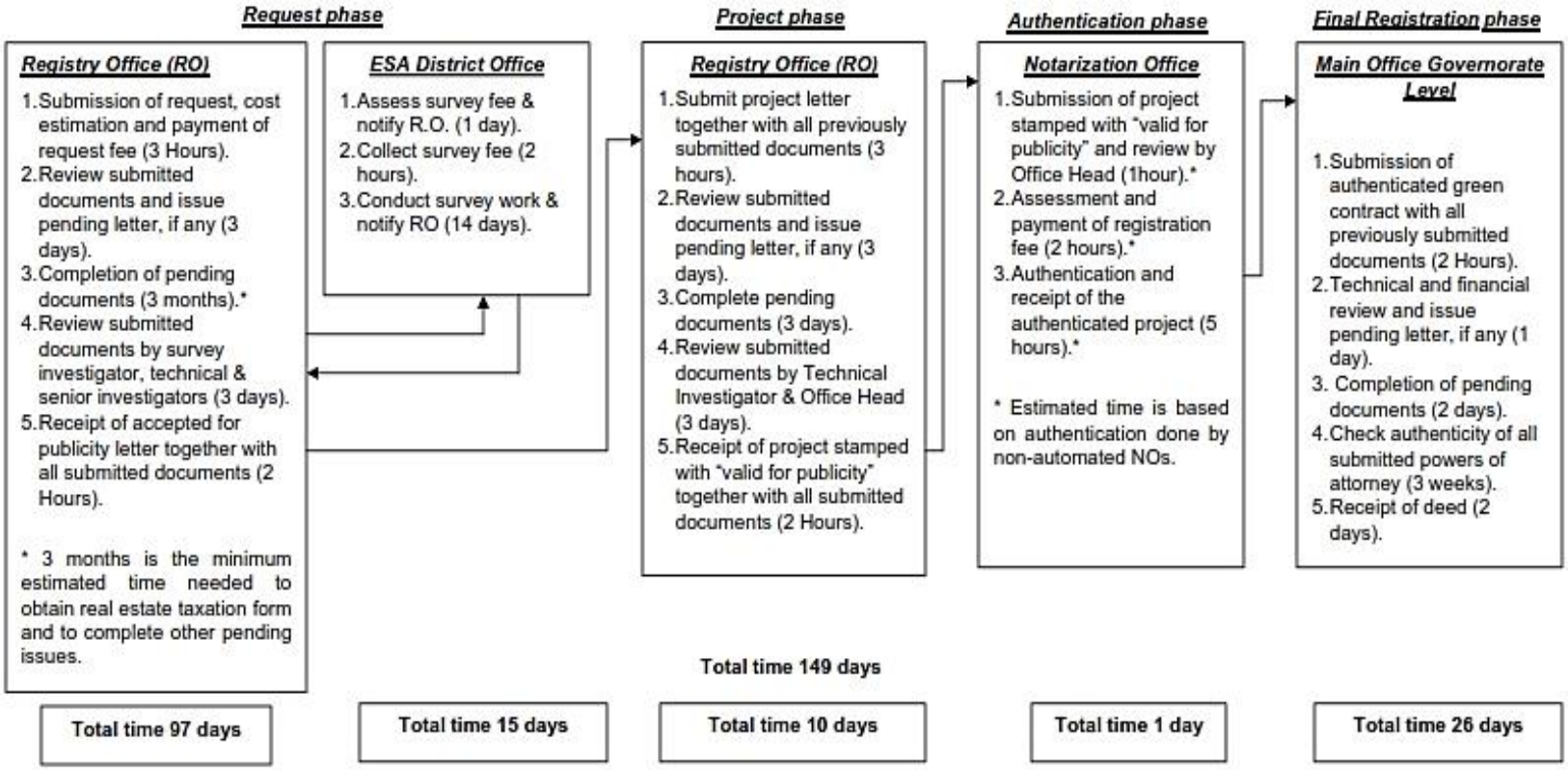
However, there are still several impediments to registration like the intricate process requiring multiple official authorisations (Egyptian Survey Authority (ESA) and the Ministry of Justice's Real Estate Publicity Department-REPD) (Own fieldwork, 2015). Thus, the common method to acquire land (largely informal land) is through 'Orfi' contracts only between parties usually under supervision of an attorney, thus legally unregistered. Although these contracts have

caused frequent disagreements between parties, they are still broadly used by residents and accepted by some governmental agencies (i.e. tax agencies).

To prove the ownership of a land or property acquired through an 'Orfi' contract, the buyer 'new owner' will have to obtain 'Power of Attorney' (tawkil) document from the seller, which can then be validated at a registration office. The buyer can also validate the contract through court procedures either, 'Validity and Enforceability' 'Seḥa wanfadh' which proves only the legitimacy of the signature, or through the 'Authentic Signature' 'Seḥa tawqeh' lawsuit which proves the validity of the entire contract (Personal interview with P2). The first court procedure is the predominant one in Cairo as it does not require ownership certification, where the second does, and most Cairenes do not have such evidence (Own fieldwork, 2015).

It has been stated that in order to own a plot of land officially in the recently reclaimed areas in Egypt there are 77 procedures to undertake in 31 separate offices, involving 3 distinct ministries, and takes between 6 and 14 years (de Soto, 2001). That was reduced to 4 main phases: Request, project, authentication and final registration phases that take 149-193 days to complete (Menelaws *et al*., 2005; MOF, 2005). However, over the recent years, a few improvements (e.g. Law 83 of 2006) have been made in terms of reducing time to 63 days, number of procedures to 8 main steps and cost of registration to LE2,000 (used to be 12% of total price), LE500 – 2,000 for the survey price, 0.25% of unit price for property tax, and 0.5% authorisation fee from the notaries' syndicate (for units over LE30,000) (Figures 6.17 and 6.18) (Personal interview with O9).

Figure 6.17: Deed application



Based on Menelaws et al., 2005; MOF, 2005

Figure 6.18: Property registration procedures

Authority	Procedure	Time (day)	Cost (LE)
Property Tax Authority	Obtain property tax statement from the Tax authority based on the Law 114 of 1946	1 day	2.25
Real Estate Publicity Department	Request for registration presented by the buyer to the Real Estate Registry	1 day	2,000 (registration fee)
Egyptian Surveying Authority (ESA)	Site inspection 'Kashf eltahdid'	15	
Measurement Department of Real Estate Publicity Department	Obtain approval of the inspection report and the Real Estate Registry's acceptance of the request for registration	21	
Egyptian Bar Association	The final contract is presented to the lawyer's syndicate for verification/ratification	1	0.5% property value (but no more than 5000)
Real Estate Registry	Obtaining the Real Estate Registry's approval of the contract 'Mashroaa Mohrar'	10	No cost
Notary Public	Authentication before the Notary Public	1	
Real Estate Publicity Department	The buyer delivers the contract to the Real Estate Registry for legalization of the contract and the registration number is delivered	10	

Based on World Bank, 2016; Personal interviews with O9

Nevertheless, in 2016 Egypt's rank in the league table of ease of registering property is 109th out of 189 countries in terms steps, time and cost involved in registering property (World Bank, 2016). This signifies the reluctance of the state to ensure that plots are legally owned and registered especially for holders of informal land tenure. Moreover, many of the residents in the illegal areas pay utility bills, and taxes, which implies for them a sign of recognition from the authorities, while it is not a sign of validity.

6.5.5. Mortgage law

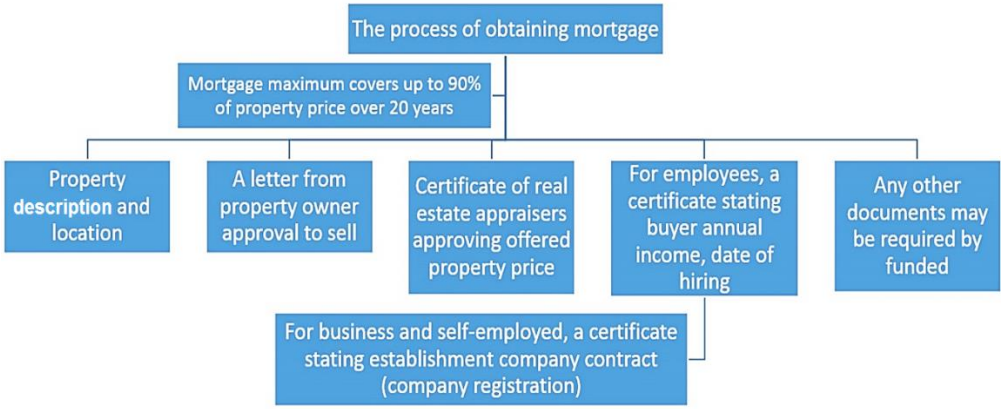
Housing finance has never been so critical in supporting housing markets to meet the growing demand, particularly in countries where the governments alone are unable to cope with the urban crisis (Marais and Cloete, 2017). The non-governmental and private sectors are needed to provide greatly expanded financial resources to increase housing investment. Housing mortgage has arguably shown to improve people's capacity to access affordable housing and home ownership. However, Egypt has an underdeveloped housing finance system, and this is seen by the government as one of the key obstacles to improving housing provision for lower and middle income households (Elgabaly, 2004; Nasr, 2010).

In the Egyptian housing market, there has been a continuing gap between the cost of housing and household income. This is attributed to poor income and savings of citizens, to subdivision standards of new housing, and the absence of a resale market for existing housing (Personal interview with P10). For example, the average housing unit price (LE120,000) reaches up to 153 times the monthly wages in Cairo (LE700) (Abuzaki, 2014). In parallel, as a result of rapid urban growth, it is estimated that about 200,000 new units are required every year to keep up with the increasing number of households (Personal interview with A2). Nonetheless, only the top 10 to 20% can afford to acquire a house (MHUUC, 2009 cited in Nasr, 2010), as per 2016 a third of Egyptians could not afford to buy a house at the price of LE75,000 (Yehia, 2016). Moreover, the minimum price for the governmental units is LE135,000, leaving 40 to 50% of the population incapable of paying for the cheapest subsidised formal housing (Personal interviews with P3 and P7).

There were various trials of launching a mortgage law since 1995, when Talaat Mustafa, agent of the Housing Committee in the Parliament back then, proposed an amendment to the Banking Law No. 163 of 1957 to allow use of bank funds to purchase housing units in new cities, but was rejected due to its violation of Civil Law No. 131 (article 1052) of 1948 which does not permit the confiscation of the mortgaged property, even in the event of non-payment of premiums (Personal interview with P7). Thus, until 2001, access to mortgage loans in Egypt was hindered by various factors: first, the lack of an encouraging institutional framework causing limited housing finance from the banking sector, and for those few who managed to obtain finance, it was at a high rate of interest (Figure 6.19); second, insufficient access to long-term funding (20-30 years) as most mortgage creditors are banks that depend on short-term customers deposits (less than 15 years) credits for their finance; third, problematic mortgage registration and title transfer procedures that can take up to 193 days in Egypt (see Chapter 7); and fourth, obscure property repossession procedures (especially through eviction). In 2001, the

government implemented several reforms to promote housing and mortgage finance like introducing 'Law No. 148 of 2001' (modelled after the American mortgage regulations), establishing a regulatory authority, setting up a fund to support low and middle-income groups, and founding specialised mortgage finance companies (Figure 6.20) (Weis *et al*., 2002; Boleat, 2002; Personal interview with P10).

Figure 6.19: Mortgage loan steps



Based on own fieldwork, 2015

Figure 6.20: Mortgage law components in Egypt

Based on own fieldwork, 2015

Since 2006, when there were only two mortgage lenders in Egypt, the number increased to eighteen institutions in 2016 (Mortgage Fund, 2016). From 2001 to 2015, 98.82% of mortgage transactions was allocated to residential uses (Table 6.5) (EFSA, 2016). As the Egyptian economy is very fragile, people tend to invest in real estate. This idea reassures the people that, regardless of economic changes, they will not be at loss as they would with keeping their assets in local currency.

Table 6.5: Mortgage transactions 2001-2015

Property use	Cumulative number of mortgage borrowers (2001-2015)		Cumulative value of funding (LE million) (2001-2015)	
Residential	38,970	98.82%	5,574	95.82%
Administrative	70	0.18%	75	1.29%
Commercial	397	1.01%	168	2.89%
Service	0	0	0	0
Total	39,437	100%	5,817	100%

Based on EFSA, 2016

The funds used by the Egyptian mortgage lenders come largely from the banking sector (2/3 of the market) (Personal interview with P10). The requirements to apply for a mortgage are: any individual between 21 and 60 (by the end of repayment) needs to have a stable income and the housing units must be built and registered. The mortgage depends on the applicant's income: the low-income ranges between LE1750 to LE2500; the middle income, between LE8000 to LE10000. 35 – 40% of the monthly salary has to be paid in instalments over a twenty-year period. For low-income group, the maximum price for a housing unit is LE125,000 half-finished units and LE150,000 fully-finished units, and for middle-income group is LE500,000. For the low- and middle-income groups, the mortgage system can be used to secure up to 90% of the unit value, with interest between 7 and 8% accordingly (Table 6.6).

In 2016, the Central Bank of Egypt introduced a scheme aimed at the low-income group whose monthly income is below LE1,400 to be eligible for mortgage with an interest of 5%. Within the same scheme, the high-income group was also considered for an interest rate of

10.5%, which can be used to buy units that cost up to LE950,000 (Personal interviews with P7 and P10).

Table 6.6: Mortgage conditions examples

Financiers	Maximum funding	Funding period	conditions
National Bank of Egypt	Up to 80% of property price or 70% if still under construction	up to 15 years	Instalments not exceed 40% of monthly wage Property should be formally registered or subject to registration. Age between 21-65
Housing and Development Bank	Up to 80% of property price	up to 20 years	Instalments not exceed 40% of monthly wage Property should be formally registered or subject to registration.
Egyptian Arab Land Bank	Up to 85% of property price	up to 15 years	Property should be formally registered or subject to registration.

Out of 216 mortgage companies in Egypt, Greater Cairo accounts for 184 real-estate appraisers. Between 2001 and 2015, 69.64% and 77.57% of the accepted number of mortgages in Egypt were concentrated only in Greater Cairo (see Table 6.7) (EFSA, 2016), once again representing the unbalanced demand and distribution across the country. This is to be considered as a result of a dense population in Greater Cairo and the high amount of housing units available on the market. Moreover, although the low-income group is the largest in terms of beneficiaries (69.57%), the high-income group actually secured 77.10% of the available mortgage money from 2001 to 2015 which is represented in units' areas and costs (Tables 6.8 and 6.9) (EFSA, 2016).

Table 6.7: Mortgage beneficiaries 2001-2015

Governorate	Cumulative number of mortgage borrowers (2001-2015)		Cumulative value of funding (LE million) (2001-2015)	
	Number	%	Number	%
Greater Cairo	25,081	69.64	4,512	77.57
Rest of Egypt	10,935	30.36	1,305	22.43
Total	36,016	100	5,817	100

Based on EFSA, 2016

Table 6.8: Mortgage beneficiaries according to income 2001-2015

Income category Monthly income (LE)		Cumulative number of mortgage borrowers (2001-2015)		Cumulative value of funding (LE million) (2001-2015)	
		Number	%	Number	%
Low-income	Up to 2,250	25,133	63.73	916	15.75
	2,250-3,000	2,303	5.84	161	2.77
Total of low-income		27,436	69.57	1,077	18.51
Middle-income	3,000-5,000	916	2.32	78	1.34
	5,000-8,000	938	2.38	100	1.72
	8,000-10,000	765	1.94	77	1.32
Total of middle-income		2,619	6.64	255	4.38
High-income	10,000-20,000	2,345	5.95	338	5.81
	20,000-100,000	5,023	12.74	1,794	30.84
	More than 100,000	2,014	5.11	2,353	40.45
Total of high-income		9,382	23.79	4,485	77.10
Total		39,437	100	5,817	100

Based on EFSA, 2016

Table 6.9: Mortgage beneficiaries according to property area 2001-2015

Property area (m^2)	Cumulative number of mortgage borrowers (2001-2015)		Cumulative value of funding (LE million) (2001-2015)	
	Number	%	Number	%
Up to 66	26,245	66.55	981	16.86
66-86	2,285	5.79	138	2.37
86-120	2,434	6.17	339	5.83
120-200	4,873	12.36	958	16.47
More than 200	3,600	9.13	3,401	58.47
Total	39,437	100	5,817	100

Based on EFSA, 2016

Over the few years since being introduced, the mortgage law has contributed to the improvement of the housing market in various ways. One has been decreasing the registration fees from 12% of the property value in 1980 to 3% in 2003, and since 2006 these fees are not to exceed LE2,000 (Denis, 2012). Another aspect that has contributed to improving the Egyptian housing market has been avoiding the long mortgage delays by approving finances for properties estimated to qualify for registration (Struyk and Brown, 2006).

However, the intricacies of housing regulations seem to represent an impediment to establishing an efficient mortgage system. One main obstacle is the informal sector residents' and workers' inability to apply

for mortgages in the absence of official land ownership certificates and work contracts. It is estimated that almost 80% of the Egyptian housing stock cannot be registered (Mostafa and Hamad, 2015). Moreover, the head of the Mortgage Fund, Mai Abdelhamid, announced in February 2015 that only 10% of 30 million Egyptian properties are registered (Hassan, 2015). A further issue that hinders the development of a competent mortgage system is with the mortgage itself: allowing low-income groups to pay up to 35% of their salary for mortgage impacts adversely on their general wellbeing, as many struggle to secure their monthly living; in order to pay their monthly mortgage, poor families will have to reduce the expenses on their basic needs (e.g. nutrition, medicine, education) (Personal interviews with N6 and P7). This shows that the government has not considered the general recommendation of 20 – 30% of low-income groups' wages as a maximum money spent for housing (see section 5.4).

Based on the interviews with the mortgage companies' representatives and local residents, my fieldwork has shown that Egypt perceives the mortgage system somewhat of an alien culture that can avoided. Some residents have indicated that they do not like to be indebted, relating mortgage to another form of long-term governmental control (Own fieldwork, 2015). In Cairo 2007, 77% of the purchased units over the past five years have been acquired using cash (UN-Habitat, 2009a), while 42% of the respondents have reported to have heard about mortgage in the past, out of which only 12% knew enough information on how to apply for a mortgage (Own fieldwork, 2015).

The available mortgage system is neither what is needed nor what is affordable in Egypt, something that is similar to South Africa (Marais and Cloete, 2017). In addition, the Central Bank of Egypt has enforced a 5% ceiling of total portfolio loan on banks that are real estate lending (Prasad *et al*., 2016). Moreover, this limit applies to residential and commercial real estate mortgages, as well as loans to individuals and housing developers. There is also no way of assessing the borrower's

long-term credit risk, and as a result, low-income people are viewed as poor credit risks, thus not being approved through the mortgage system (Personal interviews with P2, P7, P10 and P11). Furthermore, Egypt's banks serve only 10% of its residents, thus informal work is overlooked by credit agencies (Sak, 2013), causing a shortage in the low- and middle-income housing supply.

The situation is further complicated by the inconsistent approach to property estimations on account of the absence of well-trained appraisers, legally accountable for their evaluations (Personal interview with P2). Even more, there is no official system to act as a public database to record the prices of comparable properties (Personal interviews with P7 and P11). Once the applicant has been deemed eligible for a mortgage, before obtaining it, there are other procedures and documentations to be dealt with. For example, land is managed by NUCA, surveyors by Survey Authority, properties are administered by MHUUC, property registration by the Ministry of Justice, proof of income is run by Public Taxes Authority, and lending is directed through Central Bank of Egypt. There is no centralised national agency to manage the entire mortgage process, or even an agreed collaboration between the agencies, consequently the process becomes expensive, time-consuming, and exhaustive.

In a nutshell, although the Egyptian mortgage system is intended to support the housing market, it is still in its infancy, and due to the ingrained bureaucratic system, it runs ineffectively. It has yet to develop a cohesive programme in which citizens are well-informed about mortgage availability and how to apply for one. The mortgage system needs to re-evaluate the methods used to finance people, most particularly the disadvantaged groups, who without the required support, will continue to depend on other methods to fund their home as discussed in Chapter 7.

6.6. Evaluation and conclusion

"Egypt "restored to prosperity, regenerated by wise and enlightened administration … would shed its civilizing rays upon all its Oriental neighbours." (Charles-Roux, cited in Said, 2003, p108)

Planning as a merely technical exercise is not a good foundation for law-making and it becomes unsuccessful when exposed to the following: first, erroneous assumptions as planners fail to realistically evaluate the varied political and economic interests of officials, businesses, and citizens; second, incorrect assessment of costs and outcomes of applying these laws; third, unrealistic prospects of law reform like considering what is achievable in the given context; fourth, the gap between the reality of people's lives and what planners would like to see in the urban planning legislation (UN-Habitat, 2009b; Berrisford, 2013). Thus, the general failure of standard solutions poses two key questions: 'what signifies an effective planning regulation?' And, 'why is it so challenging to design new but suitable planning laws?'

Hence, the main purposes of urban planning should be to define what is possible and identify the circumstances that are favourable to attaining better results, instead of only affirming the required outcomes. The emphasis ought, therefore, to be on what can be done as opposed to what should not be done. This requires a shift in the approaches of the officials responsible for applying the urban regulation, and public participation in the planning reform consultation. Building regulations need to promote homes as means for people's personal fulfilment, encouraging sensible use of basic resources, and generate authentic culture (Turner, 1996).

To achieve sustainable housing, any policy would essentially have to meet three main objectives: to stimulate household improvement; to empower the disadvantaged people politically and economically (Choguill, 2007); and to create a self-worth culture within the society

(Simon, 1992; Said, 1994; 2003; Fathy, 2000). This policy would benefit from few interventions: planning the regulatory framework; improving government institutions; confirming the accessibility of the housing supply components; developing partnerships; welcoming the informal sector as real contributor; and facilitating a number of land assembly and housing financing systems. As described, housing in Cairo is characterised by an ineffective institutional structure; overlapping and unproductive jurisdictions; a large number of national agencies dealing with housing, lack of collaboration between institutions, common changes to housing policies, and absence of long-term planning regarding the housing supply system (Figure 6.21).

The fundamental dilemma facing localities across the system in Egypt lies in the philosophy of the system itself, namely a legacy of the longstanding centralisation of the state despite experiencing a democratic openness or various stages of the state's militarisation (see Chapter 4 and Appendix C). In this system, decisions are implemented from the top down, with no or limited public participation based on personal motivation of the politicians and powerful class in Egypt (see Chapter 5). For instance, in August 2012 the Water and Sanitation Department of the Ministry of Housing was separated to form an independent ministry which lasted less than a year, until July 2013 when it was abolished again and returned as a department of MHUUC (Personal interview with O1). As Hamdan (1982) states, perhaps one of the most prominent features of the Egyptian character is its hierarchical administrative organisation, a trait endemic to it as old as the pyramids, chronic until today (Figure 6.22).

Figure 6.21: The complicated structure of urban planning

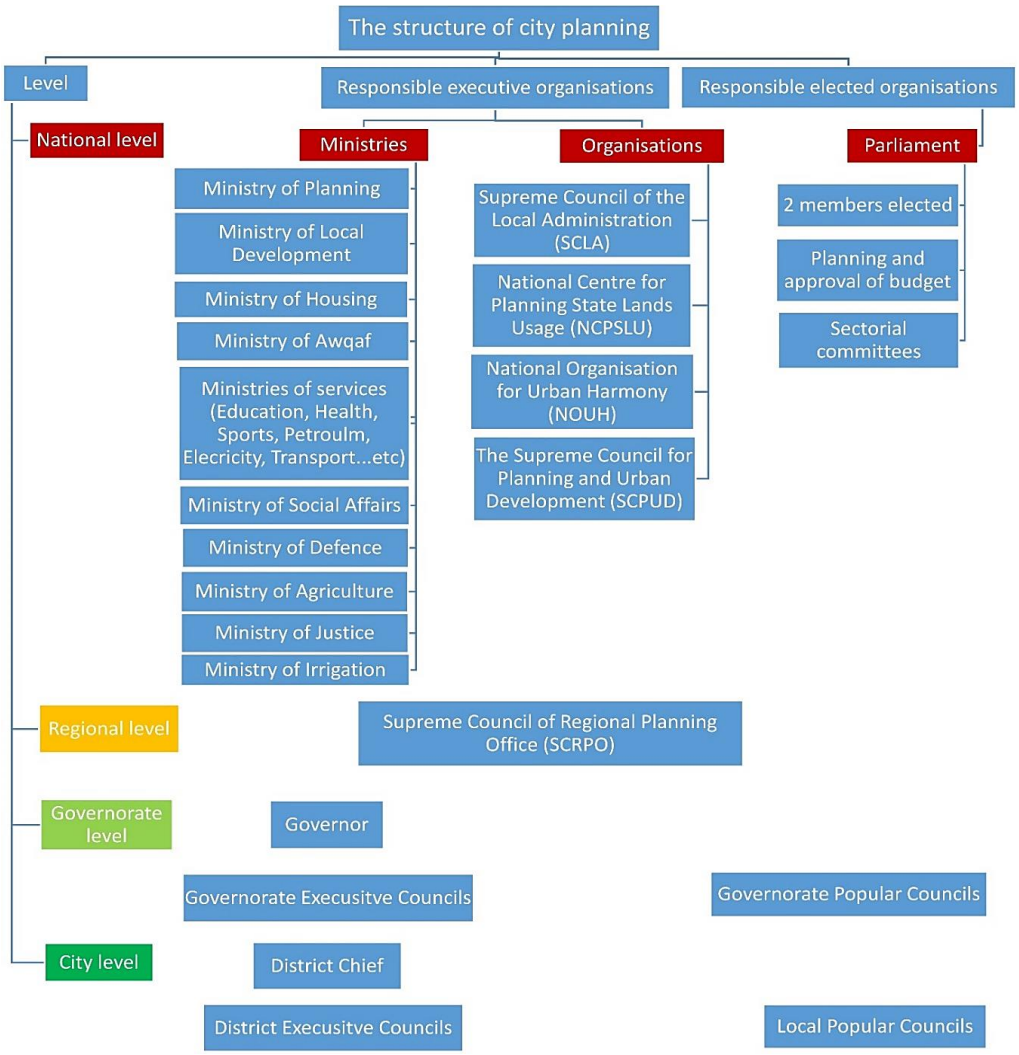
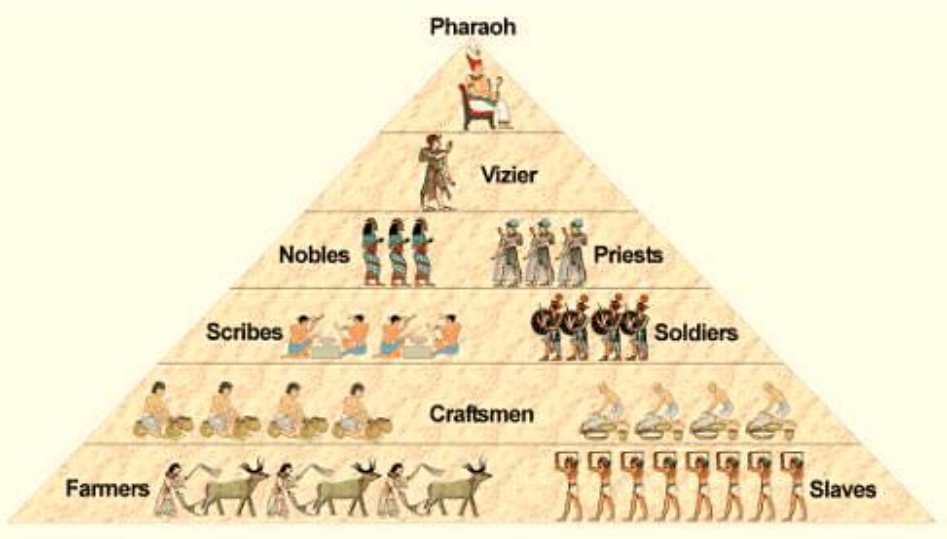


Figure 6.22: The hierarchy of Ancient Egyptian society



Based on History on the net, 2014

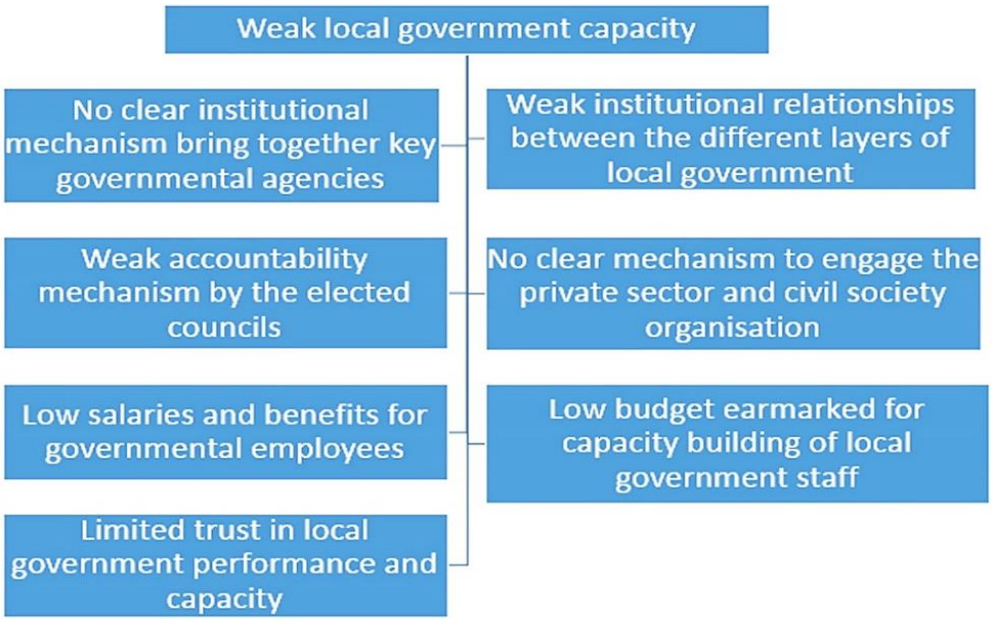
The state is always implementing its policies vertically, from top to bottom. This has actually weakened the role of the local authorities to simple followers (Hamdan, 1982). The lack of participation shows in the lack of communication and rampant corruption in many central and local government institutions, especially in the absence of accountability and loss of responsibility. This communication is deficient vertically between central and local government and horizontally among the bodies of central and local government themselves (Personal interviews with O15, N1, N6 and P5). It has been claimed that in order to escape from the accountability and to destroy corruption evidence, various fires were spread across archives and governmental buildings, always as a result of electricity short circuits. This was the case of the incident in May 2016, when an 'anonymous' fire destroyed documents of Cairo's housing projects including its financial documents in the building of the Cairo governorate.

The lack of clear central and local development visions and poor efficiency to solve problems at the local level, since the appointment rule is not based on efficiency, has nurtured the establishment of patronage (Personal interviews with O10 and A4). This behaviour is facilitated by the absence of databases at the local and central levels to support the decision making process (Personal interview with O1). Moreover, the NGOs and civil society are not given the opportunity to mitigate the harsh conditions facing the locals, while still the government pursues them with bureaucratic and security measures which culminate with imprisonment or closure of these organisations. For example, imprisonment of the founders of '*Belady* [My Country] Association' and their fellows since 2014 over charges without physical basis or evidence (Sobhy, 2016), reveals the actual state attitude towards participation among all stakeholders as nothing but a motto written in official documents and media.

In short, centralisation is the working mechanism in Cairo in terms of political, administrative and financial ways causing the performance of

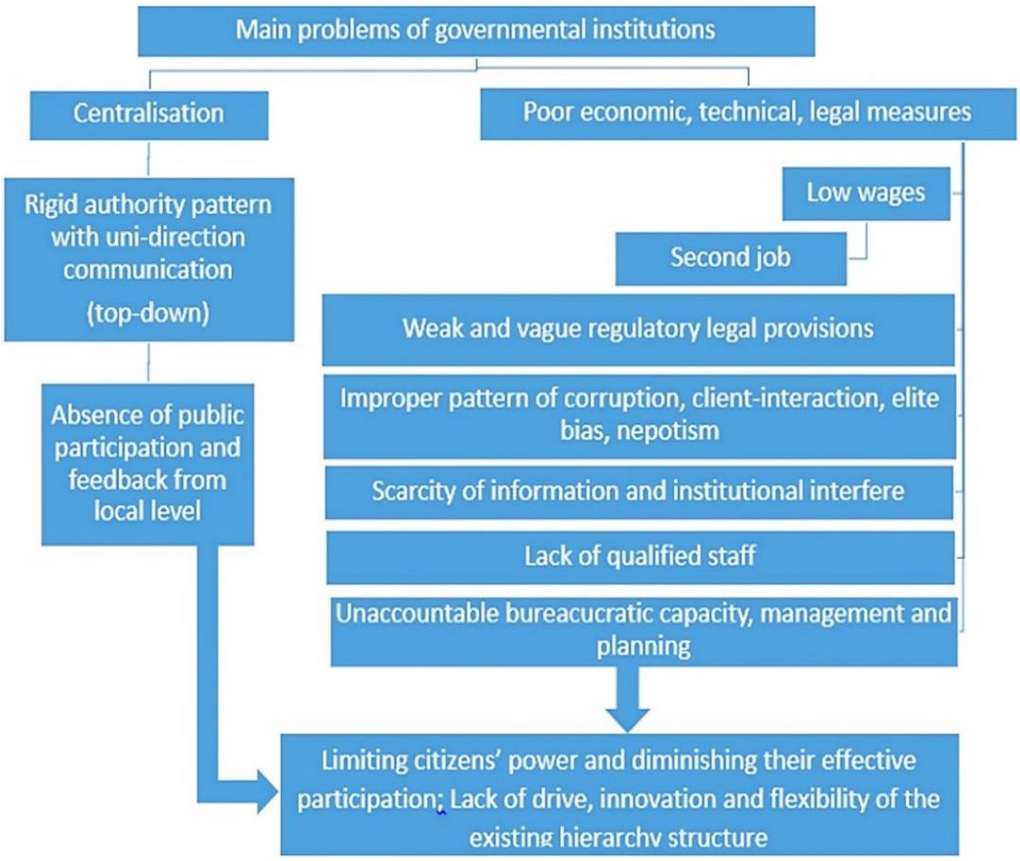
local levels to be bureaucratic, prolonged process, placing unsuitable people in power and phoney representatives of GPCs and LPCs. This has resulted in weakening the capacity of the local government by lacking a clear institutional framework, poor communication among the various governmental agencies, low salaries, and unqualified personnel (Figures 6.23 and 6.24). That has led to unbalanced distribution of investment and finance among governorates, especially in favour of the major cities or better-off districts. For example, Misr Aljadida receives 12% of Cairo's total urban budget to accommodate for 3.56% of Cairo's population, while Manshiat Naser receives only 3% to accommodate 8.2% of Cairo's population (Table 6.10) that in turn, has encouraged migration to these hubs and increased the demand on housing creating spread of informal areas to contain the new-comers and poor residents. Moreover, it had a negative impact on the housing market even after the new laws (e.g. Mortgage Law) which still benefit the rich more than the targeted group, especially with the absence of public participation in formulating these laws and follow-up to correct its flaws.

Figure 6.23: Local government capacity



Based on personal interviews and own fieldwork, 2015

Figure 6.24: Key problems of governmental institutions



Based on personal interviews and own fieldwork, 2015

Table 6.10: Cairo Eastern districts expenses 2009-2010

District name	Expenses		Population	
	Number (LE)	%	Number	%
Misr Aljadida	3,263,174	12.05	113,611	3.56
Alnozha	3,088,100	11.40	161,946	5.07
Eastern Nasr City	5,089,341	18.79	501,597	15.70
Western Nasr City	1,295,000	4.78	75,917	2.38
Almataria	1,690,054	6.24	498,663	15.61
Ain Shams	1,810,735	6.69	525,034	16.44
Elsalam	5,748,967	21.22	548,458	17.17
Elmarag	4,280,900	15.80	507,035	15.87
Manshiat Nasr	820,000	3.03	262,050	8.20
Total	27,086,271	100	3,194,311	100

Based on Cairo Governorate, 2015

Moreover, the current building regulations have been drafted from the top-down perspective, resulting in an elite urban-planning vision instead of an approach to provide for the majority of the population. This top-down approach to planning has been based on foreign standards, offered by international collaborations (e.g. IAURIF, GIZ, USAID) with no real local public participation. This examination of urban politics in Cairo has revealed the bureaucratic, state-centred forms of governance which have triggered a serious urban crisis, illustrated by the desolate new cities, and losing the opportunity to make a real impact on the whole city. Cairo urban planning needs a more democratic process in which the vision should be shaped as a result of open collaborations between politicians, planners, civil society and citizens. The current housing policies struggle between demand and supply, as in 2015 alone there were over 950,000 marriages (Elnaggar, 2015), in addition to 220,000 units required for replacement in informal areas, and 50,000 units for old buildings that are about to collapse (Everhart *et al*., 2006). However, in 2015 the total supply of the formal housing was only 352,629 units (CAPMAS, 2015).

Housing policy should aim to create the right conditions for development of urban space in order to promote social and economic progress. Thus, there is a real need to draft an inclusive housing strategy based on in-depth regular research on demand, prices, tenure-types, mortgage, housing renovation, and upgrading of informal areas. The framework needs to define and assign roles, rights and responsibilities in a simple manner so that common people can understand. In order to be effective, the housing policy has to create a culture of genuine care for the people, even more so in developing countries as they are deemed vulnerable regarding public participation in decision-making processes. The entire process requires transparency, shared information between all stakeholders, and public accountability. Once policy is rewritten, Egypt will be able to create a self-regulatory environment, thus stimulating sustainability. In the absence of a guiding strategic development framework to organise the efforts of housing programmes coherently, Greater Cairo will continue

to fail to fulfil its potential as the ‘Mother of the World’ (*Um al Dunya*), and the residents’ lives will continue deteriorating.

Hamdan (1982) claimed that the real tragedy of Egypt is that it does not face the crises with radical solutions but rather compromise and moderate ones. In other words, the tragedy of Egypt in this theory is moderation - it never falls apart, nor is totally alive, but in the face of crises, it only stoops and deteriorates, floats and stumbles, sliding its history and mighty power to the weak, and finally from top to bottom. The success of local government in meeting its responsibilities depends on its terms of reference, authorities, revenues, independence from central government, with censorship, accountability and transparency.

After analysing the formal housing mechanisms which represent the top-down approach, I now aim to consider how these operate on the local and individual levels, and this represents the bottom-up approach because the legal framework of housing will show its effectiveness, suitability and resilience in relation to how the ordinary people react to the housing official requirements. This is discussed in the next chapter as it shows the different practices of securing shelter. By scrutinising the top-down and bottom-up approaches, I try to create a holistic picture of the housing system in Cairo and this will be a good base for the case-studies analysis.

Chapter 7: The practices of informal shelter

7.1. Introduction

"Cairo is in a state of becoming…We just don't know what it's becoming yet." (Cairene resident cited in Kimmelman, 2013)

The modes of housing production are illustrated by the processes through which this provision is attained (Keivani and Werna, 2001b). To identify and examine these processes, one needs to understand the rapport between interests, policies and actions of all housing stakeholders, and the socio-economic and political framework within which these processes unfold (Ball, 1986; Ball and Harloe, 1992). Hence, it is necessary to interpret the "*relation between structure, in terms of what drives the development process and produces distinctive patterns in particular periods, and agency, in terms of the way individual agents develop and pursue their strategies*" (Healey and Barret, 1990, p90).

Two key subjects require further investigation in relation to housing development: the framework and the stakeholders. The framework, shaped by the political structure of the country, requires close attention in relation to its impact on the socio-economic values of the society concerning the built environment. The need to account for all individuals, community groups, developers, planning officers, and politicians should be made into a standard requirement in the housing provision process. The relationship between the two is to be seen as dialectical and dynamic (Simon, 1992), as stakeholders actively reshape the structure in pursuit of their interests (Bayat, 2013).

The mode of production relationship depends upon the balance between strategic goals of the system and needs of the individuals (Keivani and Werna, 2001b). Housing production, in its most basic form, is founded on 'invisible structures' that direct inputs and outputs of housing resources, and influence the way individuals use the housing produced (Peattie, 1983; Turner, 1986). In short, invisible structures generate and maintain the visible structures of what we build. These 'invisible structures' can be either formalised or

unformalised provisions, depending upon the government's success in implementing strategies to benefit the residents, or on the people's strife to provide a shelter for themselves and their families.

Despite governments' and development agencies' attempts over recent decades to house the ever-growing population, cities in poor countries continue to struggle meeting their residents' needs. For the urban poor who want to own a home, it becomes a matter of 'waiting for a house or building your own' (Landman and Napier, 2010). These practices put those urban poor in the position of invading public and private lands in contravention of the building regulations.

Unofficial housing solutions by and for the poor in developing countries have often led to the state disapproval, triggering enforcement of laws or procedures which have caused social and political unrest (Turner, 1968; Hardoy and Satterthwaite, 1989; Durand-Lasserve, 1998; Fernandes and Varley, 1998; Simone, 2004). The search for political and social stability has generated the establishment of patron–client relationships between government agencies and groups in informal areas through regulation and service provision (Gilbert, 1990). Housing production in poor countries is not at all a straightforward process (UN-Habitat, 2008b). Mathey (1992) would go as far as to claim that informality is the only realistic alternative for the poor population, considering that 29.7% of the urban population in poor countries dwell in informal areas (UN-Habitat, 2016b). Governments are in a constant battle against time to better control the impact of urban growth on cities' physical and socio-economic fabrics, while scholars are forced to reconsider their analytical characterisations (Alsayyad, 1993). This expert battle against the effects of urbanisation has shown, in the 20th century, that policies meant to mend the issues have made the situation worse. For example, implementing infrastructure in informal areas has encouraged the expansion of these areas (Turner, 1979).

Using bottom-up perspectives, this chapter analyses the practices of housing production in two informal settlements. The research made use of the case-study approach to collect primary data through semi-structured interviews, structured questionnaires, and field observations (see Chapter 3). The chapter investigates the housing ownership mechanisms in the informal areas of Manshiat Naser (MN) and Maspero Triangle (MT). Altogether, 198 questionnaires were completed in Manshiat Naser and 48 in Maspero Triangle (see Chapter 3). Each area selected for the case study was visited before visited before commencing the in-depth research in order to confirm its appropriateness in relation to the study. The chapter ends with an evaluation of the housing dynamics in Cairo's informal areas. This chapter should be read in conjunction with Appendix D, which discusses fundamental housing factors (demographic, housing stock, household incomes, poverty and wealth) and Cairo's housing characteristics.

7.2. Informal housing

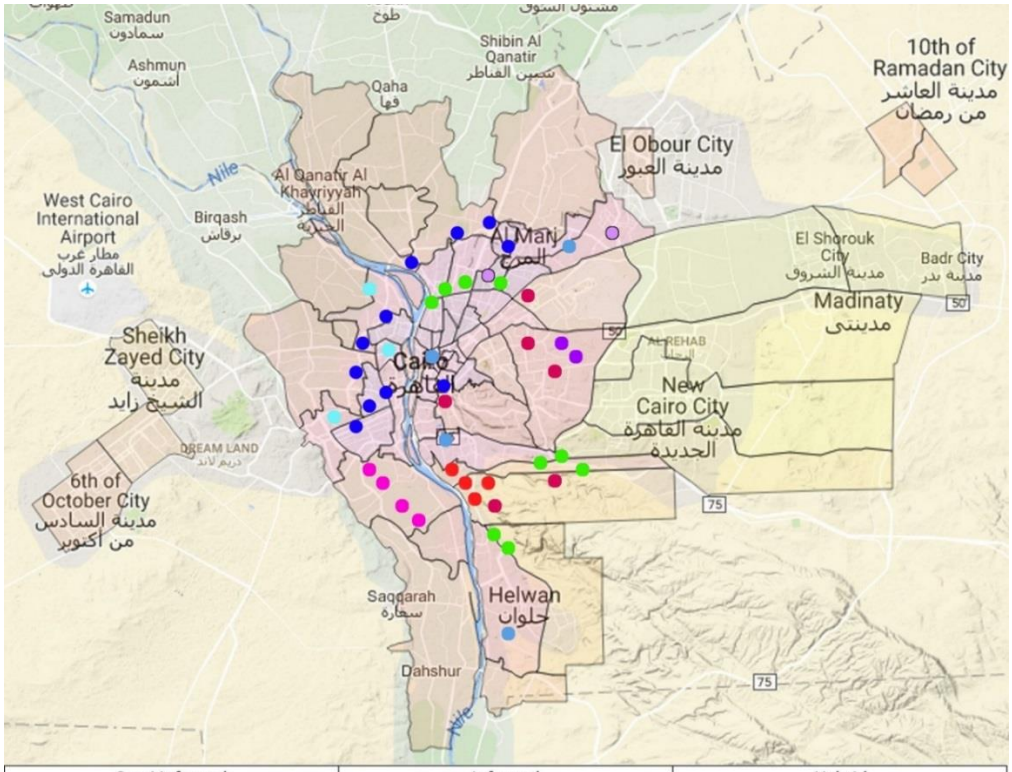
"I was born in the slum, but the slum was not born in me"
(Jesse Jackson cited in Clemente and Watkins, 1989, p39)

In general, it can be said that housing provision in Cairo has developed as a dual housing system – formal and informal. On one hand, according to Soliman (1989; 2002; 2004), the informal system in Egypt refers to three types of housing: semi-informal, informal and ex-formal (Figures 7.1, 7.2 and 7.3). Under this classification, the semi-informal has been claimed to have tenure legality benefiting from occupation permits but where building has not been developed by means of regulated processes. The informal housing implies illegal land occupation while the ex-formal housing usually refers to properties that have extended beyond the initial licensed structure without obtaining building permits. However, there could be unauthorised forms that are not illegal. Informality thus suggests more than one meaning: illegal, substandard, or not conforming to the planning regulations and building laws (Huchzermeyer, 2011; Khalifa, 2011; Simon, 2011).

Sims (2012) claims that some informal structures in Cairo, although in adequate physical condition, lack access to basic infrastructure and services (e.g. water, sanitation, electricity).

Informal areas are grouped in three categories: extremely deprived (three or more deficiencies), severely deprived (two deficiencies), and moderately deprived (one deficiency) (Habitat for Humanity, 2016) (see Section 2.2). According to these categories, 1% of Egyptian slum dwellers are extremely deprived, 2% are severely deprived, and 14.5% are moderately deprived (UN-Habitat, 2008a). These criteria, however, do not prioritise between the housing deprivations. To deal with the illegal settlements, four main policy approaches have been established: legalisation; re-blocking and densification; upgrading; and prevention (Durand-Lasserve, 1998; Fernandez and Varley, 1998).

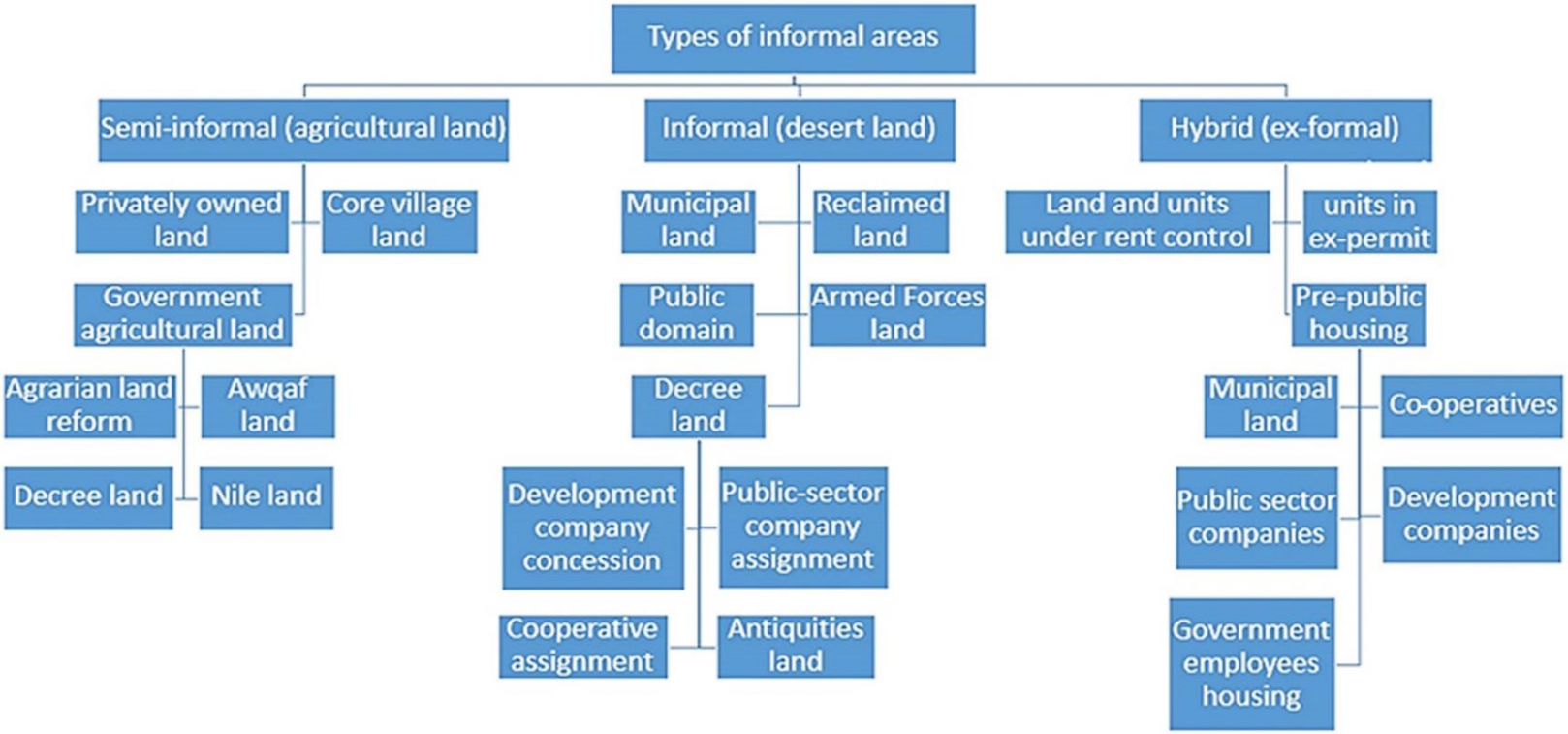
Figure 7.1: Informal areas in Cairo



Semi informal		Informal		Hybrid	
	Privately owned land		Municipal land		Land and units under rent control
	Core village land		Reclaimed land		Units in ex-permit
	Government agricultural land		Public domain		Pre-public housing
			Armed forces land		
			Decree land		

Based on Soliman, 2002; ISDF, 2015; own fieldwork, 2015

Figure 7.2: Informal areas in Egypt



Based on Arandel and Elbatran, 1997; Sims, 2000; Soliman, 2002; Own fieldwork, 2015

Figure 7.3: Informal areas definitions

	Types of informal areas		Definition
Semi-informal	Privately owned land		Cadastred agricultural land that was informally subdivided and sold on to individuals
	Core village land		Traditional, non-cadastred village land already built on before 1950
	Government agricultural land	Agrarian reform land	Informally subdivided agricultural land that was confiscated and redistributed to peasants after 1953
		Awqaf land	Informally subdivided agricultural land that administered by Awqaf
		Decree land	Informally subdivided state-owned agricultural land
		Nile land	Informal subdivision of landform due to changes in the Nile's riverbed
Informal	Municipal land		governorates-owned desert land which was squatted on by individuals
	Reclaimed land		State-owned desert land for reclamation and was then informally subdivided and built upon
	Armed forces land		armed forces-owned desert land was squatted on by individuals
	Public domain		Public domain land (e.g. railways right of ways, canals, roads) which was squatted upon by individuals
	Decree land	Development company concession	A concession state-owned desert land for development companies that was squatted upon by individuals who gained de jure recognition, but buildings are illegal
		Public sector company assignment	Assigned state-owned desert land to public-sector companies which was squatted upon by individuals
		Cooperative assignment	Assigned state-owned desert land to housing cooperatives which was squatted upon by individuals
		Antiquities land	Ministry of Antiquities-owned desert land which was squatted upon by individuals
Hybrid (ex-formal)	Land and units under rent control		Built housing blocks and are under rent control
	Units in ex-permit		Floors added to existing buildings without building licenses.
	Pre-public housing	Municipal land	Built housing blocks by governorates
		Cooperatives	Built housing blocks by cooperatives
		Public sector companies	Built housing blocks by public-sector companies
		Development companies	Built housing blocks by development companies
		Government employees housing	Built housing blocks by different ministries

Based on Sims, 2000; Soliman, 2002

In Cairo, informal areas appeared after World War II and continued to expand after the Egyptian Revolution of 1952, when industrialisation took over Cairo. This encouraged the migration from Lower and Upper Egypt, which caused an increased housing demand alongside rapid population growth. Moreover, informal settlements expanded during the war period between 1967 and 1973 as a result of scarce financial resources and relocation of inhabitants of the Suez zone. The

remittances of those who were working in the Arabian Gulf countries have contributed to the growth of informal areas, and now could afford to build, expand/convert their housing units in the absence of formal policies to manage the urban growth.

There are two main reasons why the remittances have resulted in informal areas. First, the shortage of formal land and housing that occurred as a result of Egypt's politico-economic situation (see sections 5.3.1. and 5.3.2.) increased the value of the formal housing market. Thus, although the total remittances were substantial, they were sent by a large number of people. At an individual level, this money was not enough to purchase land or housing in the formal market (Arandel and Elbatran, 1997; 1998; Sims, 2012; Eldefrawi, 2013).

Since the 1980s, the annual rate of increase of informal housing declined from 3.29% in 1986 to 2.10% in 2009 (Sims, 2012) (Table 7.1). However, since 2011, the rate has accelerated due to less government supervision, particularly on agricultural land, regardless of land legislation which barred informal construction on agricultural land (e.g. Laws No. 59 of 1966, 2 of 1985, 1 of 1996) due to the state preoccupation dealing with the revolutions (Personal interviews with O4, O15 and N4). Moreover, it has been estimated by urbanists like David Sims that since 2011 building in informal areas have increased two to threefold (Kirk, 2014). Nonetheless, this comes at a high price, as the country will soon struggle with a grimmer problem, when national food security will be at risk. Currently, Egypt spends millions of dollars annually on importing food (US65 billion in 2015) (Safalddin, 2015), making it the world's largest wheat-importing and fifth-largest corn-importing country (Indexmundi, 2016). All this while the limited agricultural lands are being built upon.

Table 7.1: Formal and informal areas in Greater Cairo 1947-2009

Year	Existing areas		Pre-urban mostly informal	Desert	Total Cairo	Annual increase (%)	Cairo's informal areas (%)
	Formal	Informal					
1947	2,400,242	0	586,038	0	2,986,280	-	10.2
1960	3,905,670	100,00	955,166	0	4,960,836	3.98	15.6
1976	4,610,326	1,969,000	1,374,317	0	7,953,643	2.99	38.1
1986	4,650,000	4,248,866	2,063,376	32,615	10,994,857	3.29	54.5
1996	4m807,632	5,436,477	2,857,468	149,992	13,251,569	1.88	59.7
2006	5,005,824	6,742,416	3,942,262	601,767	16,292,269	2.09	62.8
2009	5,038,763	7,155,106	4,345,567	800,952	17,340,388	2.10	63.6

Based on Sims, 2012

The informal modes of housing production in Cairo occur as a result of the affordable formal housing shortage, failures of the housing policy (bureaucratic, expensive, and lengthy), residents' favoured housing types, and due to a rapid route to profit through illegal land sub-division (Arandel and Elbatran, 1997; Bayat and Denis, 2000; Alsayyad and Roy, 2004; Bayat, 2013; Personal interviews with O4 and N5; Own fieldwork, 2015). Moreover, throughout the history of urbanism in the Middle East, the concept of the organic unity of urban society associated with Islamic civilization has influenced the space by generating specific morphological, social, and economic forms (Abu-Lughod, 1971; 1979; 1987; Hourani and Stern, 1970). These traditional Islamic and Arabic urban forms can still be found in the old parts of contemporary Cairo (Plate 7.1) (Own fieldwork, 2015).

Plate 7.1: Vibrant spaces in Islamic Cairo

Based on own fieldwork, 2015

It has been noted that the contrast between formal and informal housing in Cairo conceals questions of power, accountability, and social relations (Elyachar, 2003; Alsayyad and Roy, 2004; Deboulet, 2011). Since the 1960s, Greater Cairo's built area has grown

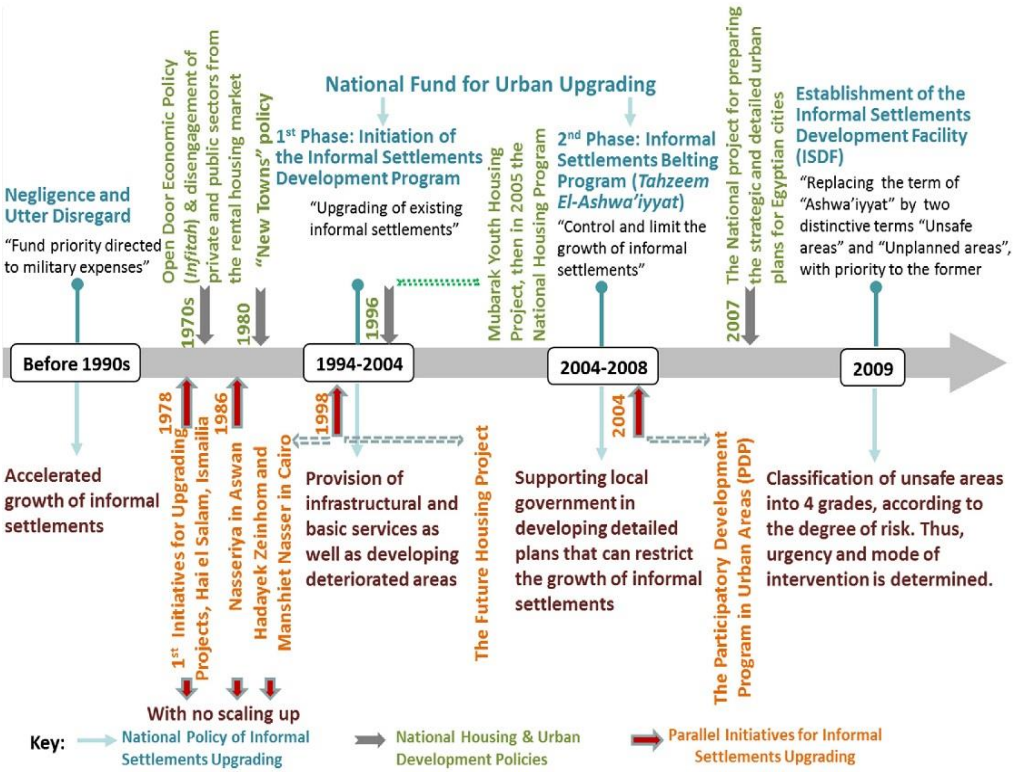
progressively into informality from 15.6%, reaching 63% in 2009 (Sims, 2012) (see Table 7.1 above). However, it ought to be emphasised that informality is a complex system to which even the state has contributed, as in cases of squatting on agriculture land in Greater Cairo (e.g. Madinat Alawqaf – see Chapter 5) or by focusing its resources on costly building projects (e.g. New Administrative Cairo, new cities) instead of upgrading the informal areas (Personal interviews with N3, A1 and P1).

Greater Cairo has 4 of the 30 largest slums in the world: Ezbet Elhaggana 1.0 million, Imbaba 1.0 million, City of the Dead 0.8 million, and Manshiat Naser 0.5 million although the official censuses underestimate the real number of informal areas residents (Sabry, 2009). Before the early 1990s, these informal areas were generally neglected by the government, and most interventions occurred only after dramatic events (e.g. social unrest in Ain Shams and Imbaba in 1990s, earthquake in 1992) (Soliman, 1995; Arandel and Elbatran, 1997; Davis, 2007; UN-Habitat, 2010; Sims, 2012; Eldefrawi, 2013; Elmouelhi and Oguz, 2013; Khalifa, 2011; 2015; Sabry, 2015a). Following these events, informal settlements gained recognition from the government, which resulted in the Programme of Urban Upgrading of 1992 and 1993 (Personal interviews with O5 and O17). However, this programme has had the adverse effect of encouraging the growth of informal areas through the provision of services and infrastructure (Personal interview with N7 and A4).

In 2008, the government attempted to inform the population about the contested issues of housing, specifically about informal housing, and promoted community participation with the Law No. 119 of 2008. However, the law remained only on paper, having no real implementation in practice. Following the 2008 rockfall in Deweka, a general strategy to deal with unplanned and unsafe areas was put in place with the establishment of ISDF (see Chapter 6 and Appendix C) (Personal interview with O4). The Egyptian government's approach similarly matches the worldwide policies dealing with informal areas

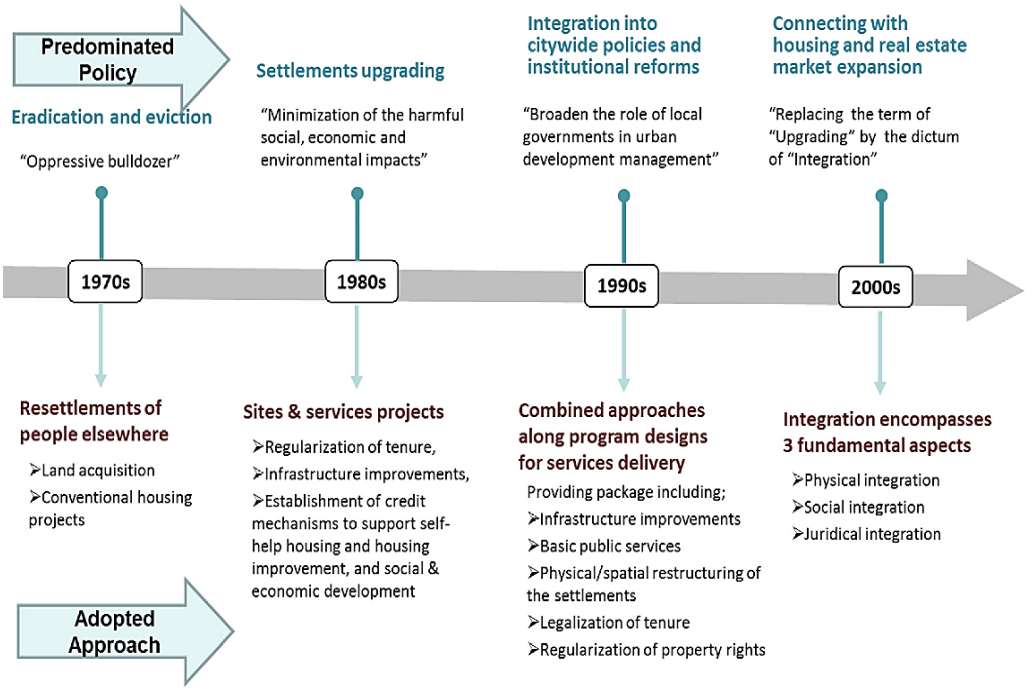
but with a time gap at applying these different policies (e.g. eviction, upgrading, and integration) (Figures 7.4 and 7.5).

Figure 7.4: Informal settlements interventions in Egypt



Based on Khalifa, 2015

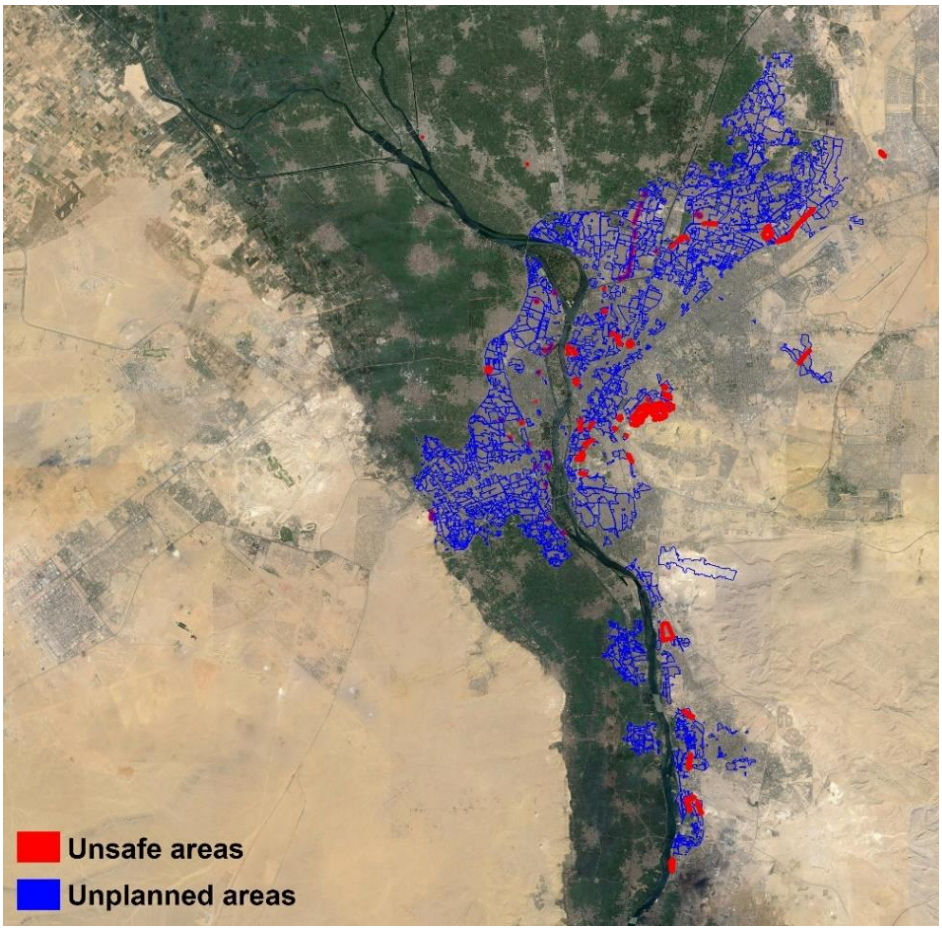
Figure 7.5: Worldwide policies and upgrading ideology



Based on Khalifa, 2015

Since its establishment, the ISDF has usefully replaced the term 'informal areas' with two distinct terms – 'unsafe areas' and 'unplanned areas' (see Chapter 6; Figure 7.6). Unsafe areas refer to those with life threatening housing conditions, being exposed to health threats, or tenure risks, while unplanned areas refer to non-compliance with planning laws and building regulations. To classify the informal areas further, the unsafe areas are divided into four grades: Grade 1: life threatening areas (e.g. land sliding); Grade 2: inadequate housing conditions (e.g. sheds, ruins); Grade 3: health risks areas (e.g. absence of clean water or sanitation, within boundaries of industrial pollution); Grade 4: insecurity of tenure areas (e.g. illegal possession) (see Figure C.21 in Appendix C) (Personal interviews with O4 and O15). Grade 2 areas have the highest percentage among the four types in Greater Cairo (64%) and at a national level (70%) (Table 7.2 and Plate 7.2) (MHUUC, 2012).

Figure 7.6: Cairo unsafe and unplanned areas in 2015



Based on ISDF, 2015

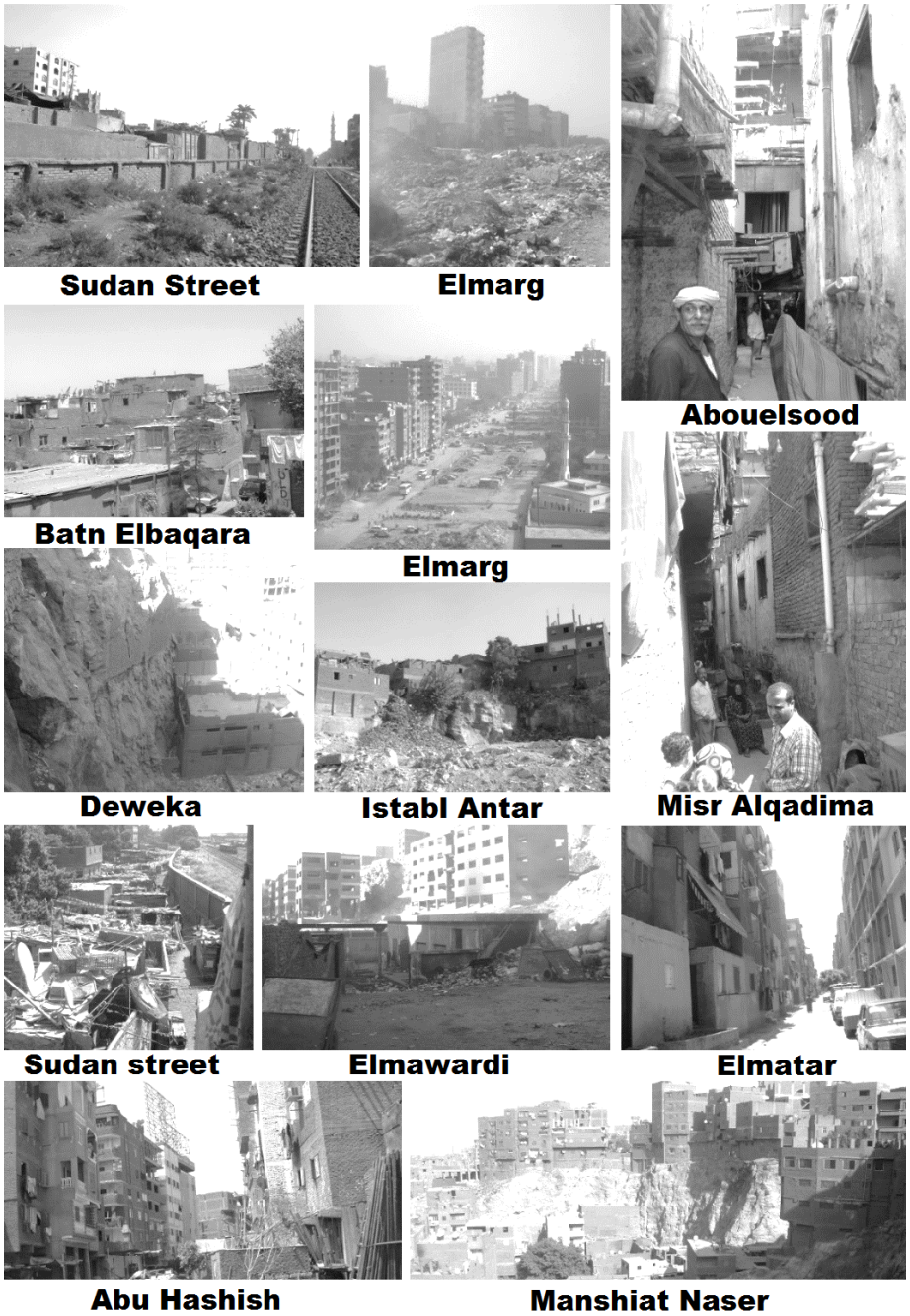
Table 7.2: Unsafe areas percentages in Greater Cairo and Egypt

Grade of unsafe areas	Greater Cairo (%)	Egypt (%)
Grade 1	11	7
Grade 2	64	70
Grade 3	25	18
Grade 4	0	5

Based on MHUUC, 2012

Note: See p. 282 and 524 for definitions of Grades 1-4.

Plate 7.2: Informal areas examples in Greater Cairo



Based on own fieldwork, 2015

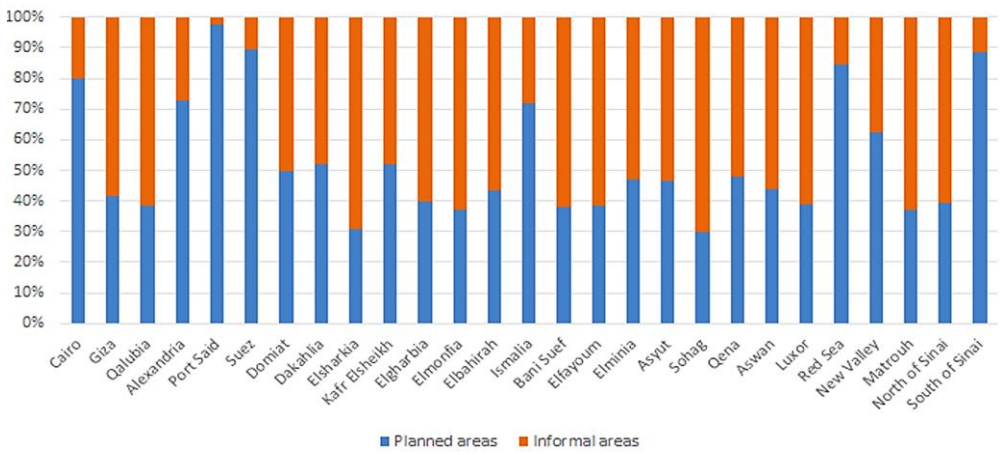
According to the ISDF data, in 2013 the land area percentages of informal areas to the total built areas in Cairo, Giza and Qalubia were 19.8%, 58.5% and 61.5% respectively, where its percentage in Greater Cairo and Egypt reached 32.2% and 37.5% (Table 7.3 and Figure 7.7). The high percentages of Giza and Qalubia compared to Cairo are due to the vast agricultural land surrounding these two governorates that encourages people to transform them to urban settlements. The unsafe areas are of main concern for the ISDF under the current government, while the far more numerous and extensive unplanned areas are neglected. This seems an elaborate plan to benefit the image of the government and of the country as a whole. At a local level, the country will have to manage a few settlements (351) and a reduced number of people (850,000 across Egypt) as opposed to all settlements (1221) in which 16 million people reside (Aggag, 2016).

Table 7.3: Informal areas in Greater Cairo and Egypt's governorate

No.	Governorate	Planned areas (feddans)	Informal areas (feddans)					Total built areas	% of informal areas
			Unplanned areas	%	Unsafe areas	%	Total areas		
1	Cairo	74,520.1	17,577.1	95.6	807.5	4.4	18,384.6	92,904.8	19.8
2	Giza	10,930.1	15,261.3	99.2	118.9	0.8	15,380.2	26,310.3	58.5
3	Qalubia	5,978.9	9,504.8	99.3	63.7	0.7	9,568.5	15,547.4	61.5
4	Alexandria	53,188.8	19,820	99.3	146.7	0.7	19,966.7	73,155.5	27.3
5	Port Said	6,640.5	26.2	15.4	143.5	84.6	169.6	6,810.2	2.5
6	Suez	12,723.3	1,199.4	82.2	260.2	17.8	1,459.6	14,182.8	10.3
7	Domiat	2,918.4	2,931.9	99.2	22.2	0.8	2,954.1	5,872.5	50.3
8	Dakahlia	8,336.7	7,386.9	95.6	342.2	4.4	7,729.1	16,065.8	48.1
9	Elsharkia	3,501.3	7,894.9	99.8	17.1	0.2	7,912	11,413.3	69.3
10	Kafr Elsheikh	3,081.2	2,748.5	96.9	86.9	3.1	2,835.4	5,916.6	47.9
11	Elgharbia	4,439	6,602.5	99.0	68.2	1.0	6,670.7	11,109.7	60
12	Elmonfia	2,246.8	3,738	97.7	88.6	2.3	3,826.6	6,073.4	63
13	Elbahirah	5,790.6	7,534.5	99.7	20.1	0.3	7,554.6	13,345.2	56.6
14	Ismalia	9,378.3	2,804.5	75.9	890	24.1	3,694.5	13,072.8	28.3
15	Bani Suef	1,643	2,495.1	93.6	171.6	6.4	2,666.6	4,309.6	61.9
16	Elfayoum	1,584	2,535.1	99.3	17	0.7	2,552.2	4,136.2	61.7
17	Elminia	3,190.9	3,564	99.6	15	0.4	3,579	6,769.9	52.9
18	Asyut	3,222.5	3,591.4	97.6	86.9	2.4	3,678.3	6,900.8	53.3
19	Sohag	2,317.5	5,300.6	98.3	90.6	1.7	5,391.1	7,708.6	69.9
20	Qena	3,349.5	3,467.6	95.0	181.4	5.0	3,649	6998.4	52.1
21	Aswan	4,570	5,715.5	97.3	159.7	2.7	5,875.2	10,445.3	56.2
22	Luxor	1,349.6	2,073.7	98.5	30.8	1.5	2,104.6	3,454.2	60.9
23	Red Sea	10,522.8	1,647.4	86.1	266.9	13.9	1,914.3	12,437.1	15.4
24	New Valley	3,480.2	2,034.6	97.6	49.9	2.4	2,084.5	5,564.7	37.5
25	Matrouh	4,507.3	7,679.5	99.9	8.3	0.1	7,687.7	12,195	63
26	North of Sinai	3,396	5,259.5	100	0	0	5,259.5	8,655.4	60.8
27	South of Sinai	13,916.9	1,226.7	70.0	525.3	30.0	1,752	15,668.9	11.2
Total of Egypt		260,724	151,621	97.0	4,679	3.0	156,300	417,024	37.5

Based on ISDF, 2015

Figure 7.7: Informal areas percentages in Egypt



In May 2016, Elsisi asked the Ministry of Housing and the Egyptian Armed Forces (EAF) to upgrade all unsafe informal areas by 2019, for which the state allocated LE16 billion. Shortly after, MHUUC publicised a long-term plan until 2026 for other types of informal areas (Zayed *et al*., 2016). Only time will reveal how serious the state is about tackling this issue, although it raised many doubts about whether this promise is achievable. It seems the promise has three goals; the first is to increase the President's positive publicity. The second is to use the strategic lands of these informal areas for more investment projects, thus using this programme to relocate the residents of these informal areas. The third is at an international level, that Egypt will be named amongst the countries with a low percentage of informal areas. However, reality will be significantly different. Importantly, this plan to upgrade the unsafe areas was drafted at the President's request and has not been discussed with the stakeholders. Moreover, it seems that this plan is perceived by the government as sufficient to reduce poverty in the areas of concern, as no other programmes have been established in order to improve the socio-economic situation of the residents.

Urban upgrading is not an exceptional and unambiguous process that results in providing adequate living conditions; it is not a massive approach; it is meant to be divided into small achievable modes of intervention (Abbott, 2002). Moreover, upgrading is a contrapuntal

development that consists of five main parts: physical improvement, facilities, housing improvement, tenure regularisation and development programmes (UN-Habitat, 2012d). Despite the government's attempts to restrict the growth of informal settlements, these areas have developed an interdependent relationship with the state. The expansion of informal areas in Cairo has promoted a patronage system, in which the citizens have become the clients. For instance, most upgrade projects have paid little attention to formalising land tenure, to socio-economic development of the areas, to community participation. Even when the essential services networks were supplied to the informal areas, mostly those who could bypass the restrictions (either via connections or gifts) were connected to the services (Personal interviews with N3, N6 and P11; Own fieldwork, 2015).

Informal areas are formed as a result of four main processes: social solidarity, physical consolidation, land alteration (invasion of state desert land and land-use change of private agricultural land), and urban maturity (Alsayyad, 1993; Elleh, 2014). Nonetheless, the informal status of these areas does not hinder the informal real estate marketing mechanism in terms of selling or renting. These four processes comprise four stages that take place in any informal area in Cairo: the first stage is represented by the primitive shelters built with cheap materials to test the authorities' reaction. When there is no reaction from the authorities, residents continue to develop the building in small commercial activities. The second stage is represented by vertical and horizontal expansion. Following no eviction or demolition cases, more people are attracted to the area. Housing construction is expanded until there is no more available land to build on. The third stage is represented by saturation, in which further addition occurs through vertical densification. The fourth stage is most common in the old informal areas, in which small single rooms and sanitary facilities are added. This gradually results in further addition until it becomes a liveable space. These successive transformations, sometimes carried out by private contractors, can

reach up to 2 – 6 storeys and recently even up to 20 storeys (Plate 7.3) (Personal interview with O4; Own fieldwork, 2015). The state response to squatting has included disregarding, demolishing, displacing, legalising or upgrading such areas.

Plate 7.3: Informal areas successive transformations in Cairo

Mokattam **Ain Shams**

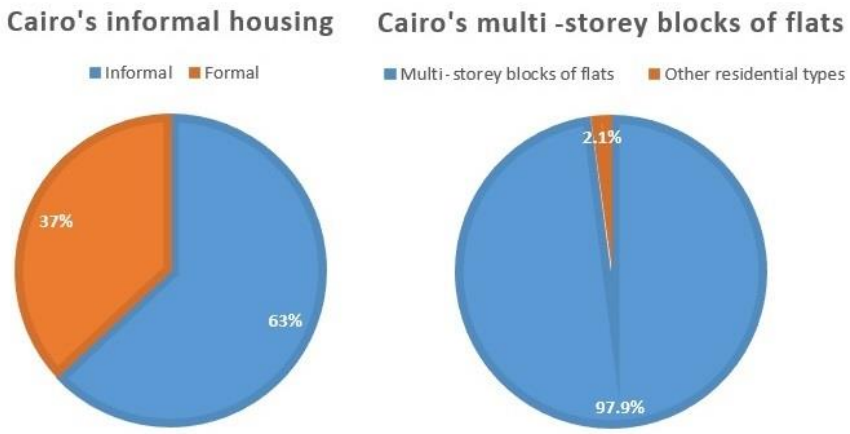
Based on own fieldwork, 2015

Many Egyptian professionals perceive informal housing as "*haphazardly constructed and liable to collapse*" (Sims, 2012, p.99). However, this is a theoretical assumption considering that informal housing is largely built by the owners and it is thus advantageous to them to ensure that construction is adequately robust. As a result of owners' efforts and significant financial resources dedicated to these buildings, informal housing construction seems to benefit from good structural quality. At large, what makes these informal buildings informal is not their categorisation, as they are very similar to those built formally, but the way they were built and on what land they were built. They are considered informal because they were built mostly on former agrarian land and/or without building permits.

The relationship between informality and the residential multi-storey blocks of flats in Cairo is illustrated in Figure 7.8. 63% of Cairenes (Sims, 2012) reside in informal buildings, and they could be part of the almost 98% of Cairenes (CAPMAS, 2008a) who live in multi-storey blocks of flats (see Appendix D). We can deduce that at least 61% of Cairenes live in flats. However, it is important to mention that,

according to many scholars (Bayat and Denis, 2000; Sabry, 2009), the official census undercounts the population and buildings in informal areas, according to many scholars. Two main reasons may explain the typological similarity of housing, both formal and informal. The first, could refer to the similarity in construction materials and techniques used in the housing production. This indicates that formal and informal housing are commonly constructed using the dominant building materials (i.e. bricks and cement) and widespread building techniques. The second refers to the preferred housing typology in Cairo which is the multi-storey blocks of flats. This is because of the shortage of well-located and adequately serviced land in an arid environment and affordable high housing demand.

Figure 7.8: Multi-storey blocks of flats and informality



Based on Sims, 2012 and CAPMAS, 2008a

Informal housing production starts with people's savings (mostly through a rotating credit scheme) being invested in acquiring land. Due to the shortage, affordability, and location of formal land people tend to buy mostly in three locations –the agrarian periphery of Cairo, in the inner-city, or squatting on desert land. Once land is acquired, people hire contractors to build multi-storey buildings. The owners pay the contractors in cash, at different stages in the construction process. Another example of informal housing production is when the contractors own the land and build a certain number of units to sell on the housing market. Once they start gaining money from selling, they continue to build more storeys. With the increased land prices in Cairo,

land speculation and housing construction have flourished. For example, the land price in 6th October increased from 18 – 25LE/m^2 in 1992, to 3,000 – 7,000LE/m^2 in 2016 ((Eldusoki, 2007; Abugabl, 2016). Some agrarian landlords have parcelled their farmland in order to sell it for building and maximize their profits.

In the absence of a form of control and to make rapid profit, incremental low-rise self-built construction has evolved into semi-professionally built, twenty-story towers. Some of these new towers are plastered and painted to increase the marketability. It seems that urban informality is evolving into a profitable business that may decrease low-income groups' chances of acquiring shelter.

Everyone can appreciate that residing in informal areas is not a matter of living in a 'dream house'. So one could ask oneself, 'Why do people live in informal housing?' In order to answer such a question, it is necessary to acknowledge the social, economic, and psychological needs that people strive to fulfil in their residential setting, and thus reveal the reasons why people live in informal areas. After comprehensive research, one reaches the conclusion that two main reasons push people to live in informality: availability and affordability. In an old civilisation like the Egyptian, housing availability refers to a wide range of housing options located amongst family in order to provide the social resources to cope with the daily necessities (e.g. help with errands, convenience, safety). Although informal areas struggle with socio-economic, environmental and urban problems, they reflect the social needs and the economic capabilities of the inhabitants.

Thus, since the 1950s, the informal areas have grown at a fast rate while the formal areas' growth rate has declined (Sims, 2012). It then becomes vital to invest in the places where people live (and want to live) instead of developing more cities in the desert to remain predominantly vacant (Personal interview with P1). Some other extrinsic reasons why people reside in informal housing have

accounted the ineffective housing policy, inadequate urban management, high population growth rates, rural migration, and profits from illegal land sub-division. Although portrayals of Cairo are dominated by the termite-mound-like buildings, they reveal people's flexibility, ingenuity, and adaptation in the face of severe socio-economic conditions. The character of the Egyptian informal sector reflects an administration that is often described as unproductive but hardly absent from Egyptian society. Egyptian informality sits between supposedly regulated sectors and those sectors explicitly named as irregular.

7.3. Case studies

The lack of an effective overall urban planning framework, combined with the rapid urbanisation and increased housing demand, particularly for the urban poor, was one of the main reasons for the emergence of urban informality (UN-Habitat, 2010c; 2014c). In Cairo, by the late 2000s, 81% of informal units had developed on privately-owned agricultural land, 10% on government-owned desert land, and 9% on state-owned agricultural land (Cities Alliance, 2008, 2010; UN-Habitat, 2010c).

Cairo holds not only some of the world's most remarkable ancient sites, but also some of the world's most-known informal areas like the 'City of the Dead', where thousands of people reside in a cemetery, and 'Manshiat Naser', where a significant proportion of Cairo's garbage is brought to be recycled. Apart from these informal areas, many others are less known and only come to light as a result of a targeted improvement plan. The areas vary in size, form and living standards; however, they all share the fact that they have not been planned but spread spontaneously.

The main focus of the case studies in these informal areas is to understand housing ownership mechanisms over time and its outcome on this type of built environment. The case study of the

informal areas begins by introducing the district, before addressing its historical evolution, recounting the attempts that have been undertaken to improve the area, and identifying the key stakeholders, and finally presenting and interpreting the data, and drawing up the relevant conclusion concerning informal areas in Cairo. The data were collected through questionnaires targeting the inhabitants of the two selected informal areas – 'Manshiat Naser' and 'Maspero Triangle', personal interviews with other stakeholders (i.e. NGOs, developers, officials, academics, professionals), and non-participant observation, alongside secondary data. Altogether, 198 questionnaires were completed in Manshiat Naser and 48 in Maspero Triangle (see Chapter 3).

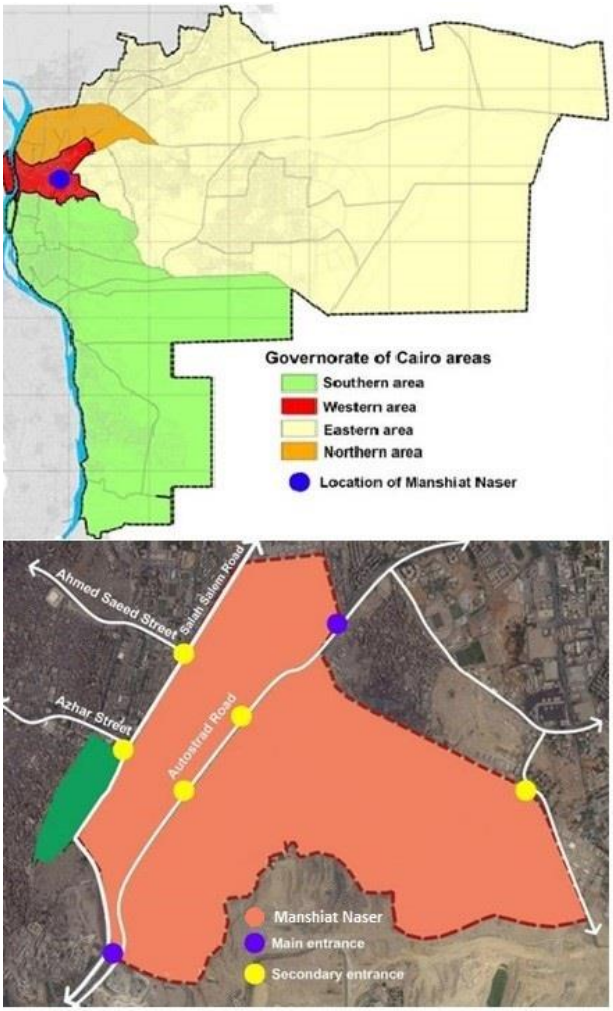
7.3.1. Manshiat Naser

Until the 1950s, Manshiat Naser (MN) was an area outside the city, now a district in western Cairo. Manshiat Naser includes the 'City of the Dead' Islamic cemetery below the Mokattam Hills. Since the 18th century, Mokattam had been inhabited by those who had been forced out of central Cairo due to urban demolitions and urbanisation effects, people who used to work in the stone quarries, and those who migrated in from the rural areas, looking for work but could not afford to live in the city (see Chapter 4). MN's area is 15.2 km², of which 5.54km² is occupied (Cairo Governorate, 2016; GIZ, 2016) (Figures 7.9 and 7.10). The dominant characteristics of its built environment are represented as residential (35.82% of land use); moderate quality in terms of standards (62.36% of buildings); 1-2 storey height (47.77% of buildings in terms of height); and concrete structures (52.22% in terms of construction materials) of the total buildings according to each of these dominant urban characteristics (ISDF, 2015) (Figures 7.11 and 7.12).

In 2006, the official census stated that only 262,050 people lived in Manshiat Naser (CAPMAS, 2008b). However, it has been specified by GIZ that almost 800,000 people inhabited the area (Kipper *et al*.,

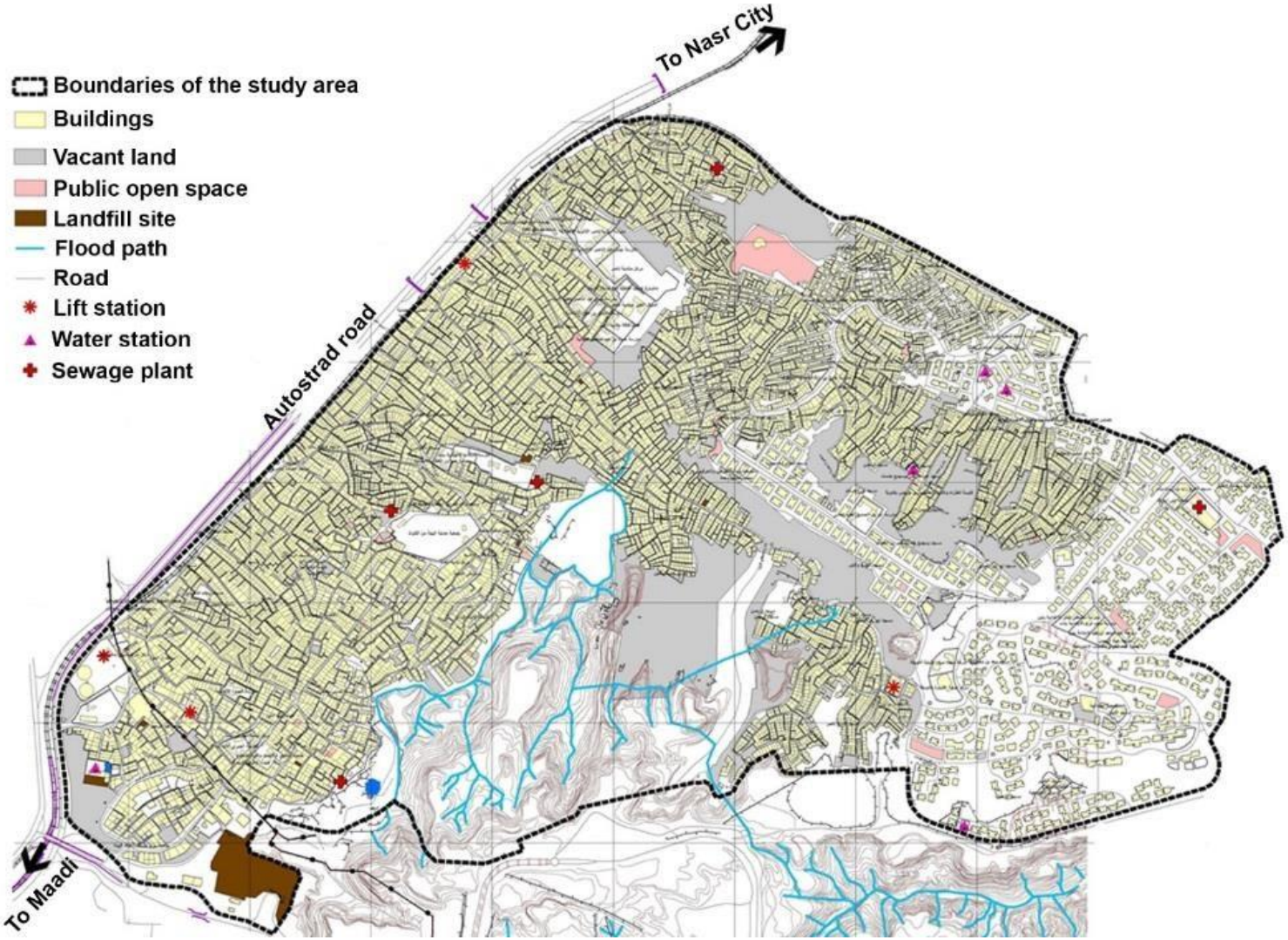
2009). Moreover, it has become known that being one of the largest informal areas in Africa, it is also the most densely populated (Amnesty International, 2009). Thus, it is one of the first areas to have been targeted for upgrading by foreign investors and international NGOs (the World Bank in the 1970s, German Development Bank in the 1990s, and GIZ from the 1990s to 2010) and has received government attention since the 1970s (Personal interviews with O15 and N5). There are over 100 NGOs and charitable organisations acting in the area, addressing issues such as projects to alleviate gender and youth issues, supporting small businesses particularly in offering them technical advice, and creating job opportunities through the projects they administer (Personal interview with N7; Own fieldwork, 2015).

Figure 7.9: Site location of Manshiat Naser within Cairo Governorate



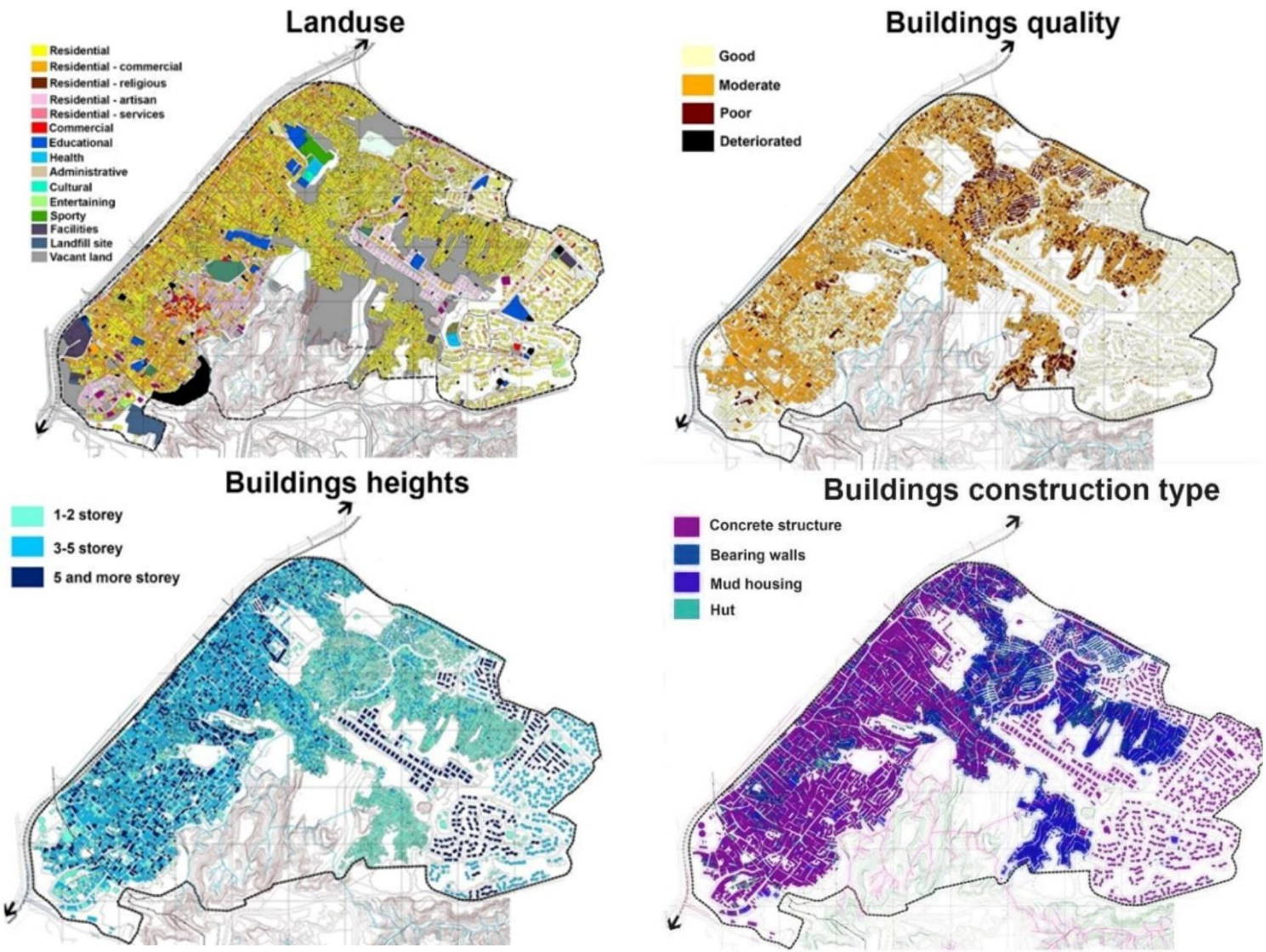
Based on Google Maps, 2016

Figure 7.10: Manshiat Naser site plan



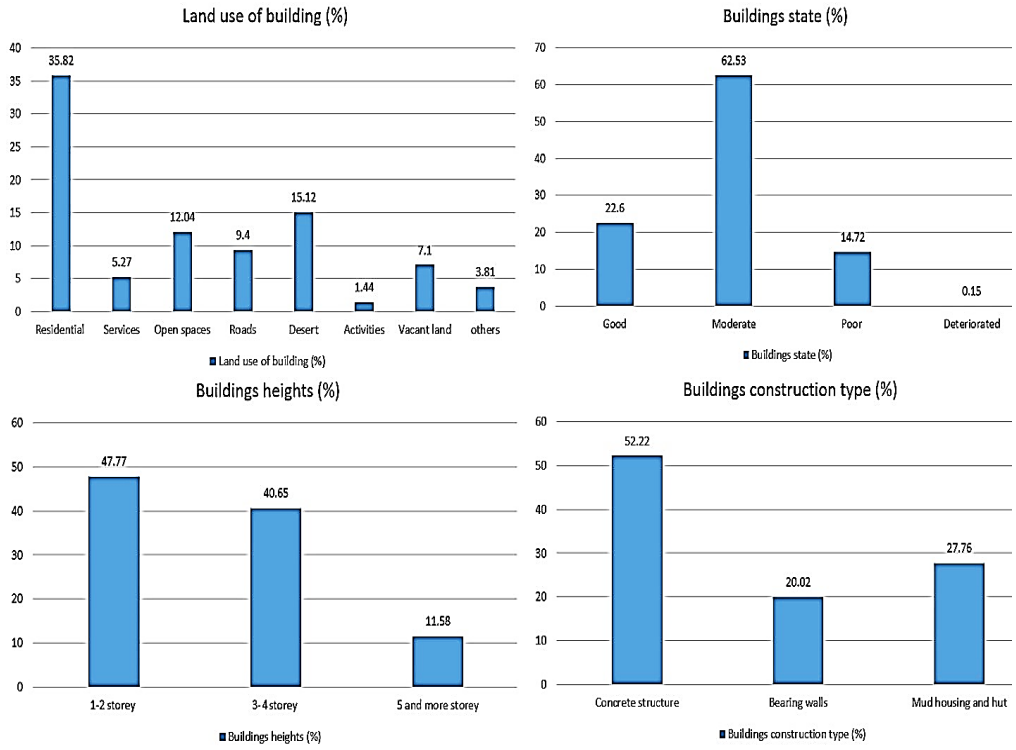
Based on ISDF, 2015

Figure 7.11: Manshiat Naser buildings characteristics



Based on ISDF, 2015

Figure 7.12: MN's buildings' characteristics statistics

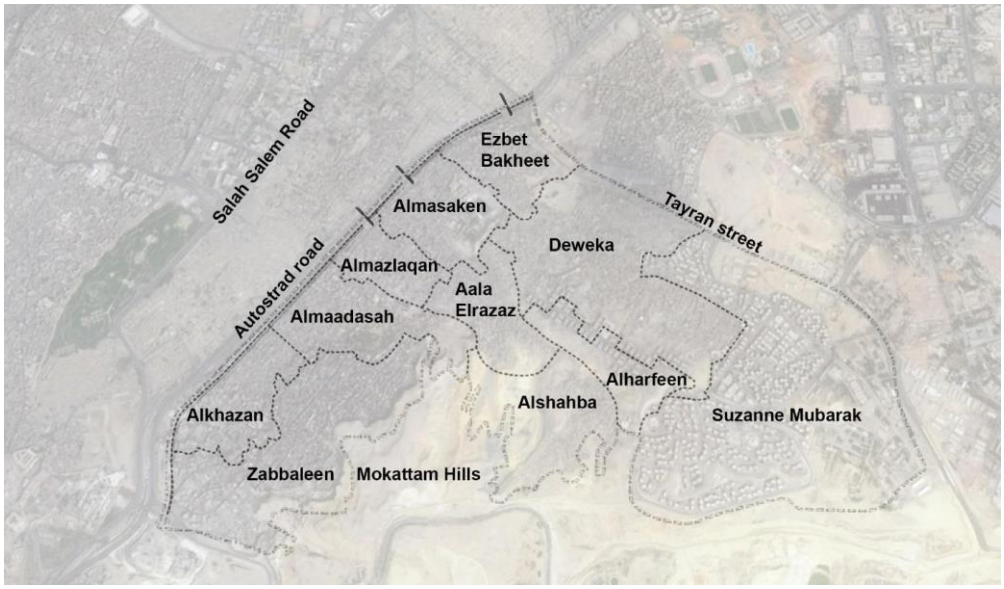


Based on ISDF, 2015

Manshiat Naser (MN) is divided into 11 areas, and it contains 8 locations of first and second grade of unsafe areas (see Appendix C) spread over a quarter of the settlement area (Figures 7.13 and 7.14 and Table 7.4). The 198 questionnaires allocated to MN have been distributed across the 11 areas (see section 3.3.5) (Figure 7.15). One of these areas, Zabaleen, is the location for waste recycling; another, Alharfeen, is the workshop of the district, in which automobiles and electronic devices are fixed; while a third, Almazlaqan, is the market place, and a fourth, Suzanne Mubarak, is the governmental resettlement site. My fieldwork has shown that 53% of the residents in MN have emigrated to Greater Cairo, and most of the families who live in the area have moved from three parts of Upper Egypt – Fayoum, Qena, and Sohag (Own fieldwork, 2015). The first generation emigrated during the British occupation as a result of the strict agricultural laws that forced many to sell their land and look for job opportunities in the capital. When they first arrived, they lived in Gamalia in Old Cairo as it was low-priced. They obtained a modicum

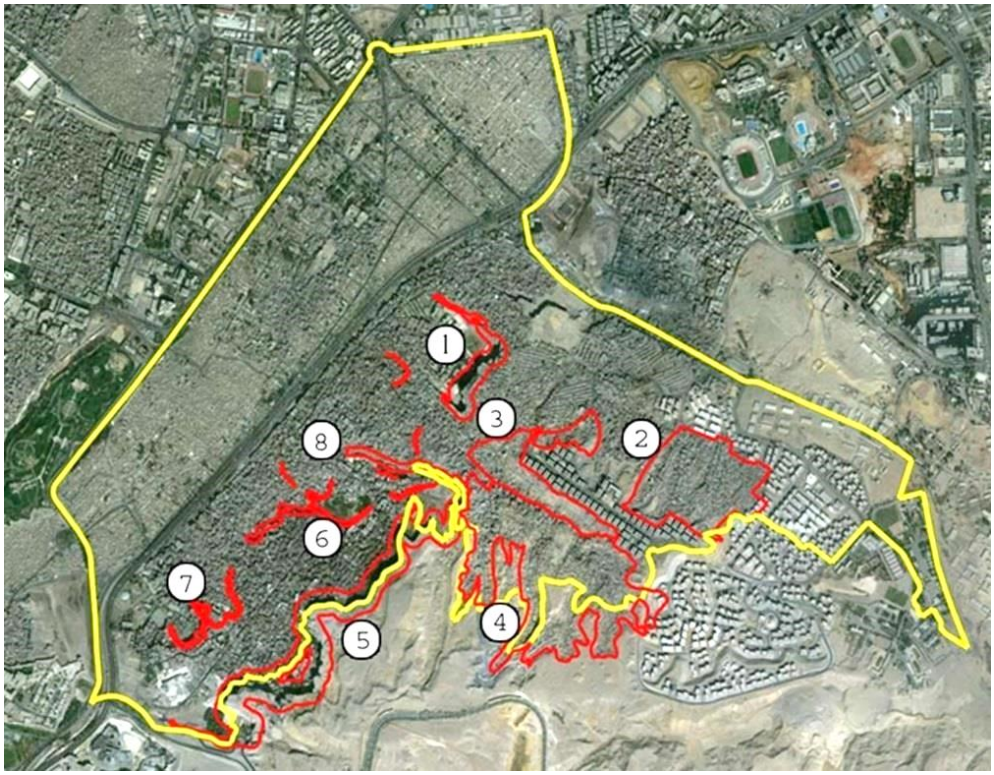
of income by recycling steel and selling recycled building materials. This newly-formed community built their homes and commercial amenities using tin due to the governorate notice against the establishment of permanent houses.

Figure 7.13: The sub-areas of Manshiat Naser



Based on Google, 2016; Tadumn, 2015; own fieldwork, 2015

Figure 7.14: Locations of unsafe areas within Manshiat Naser



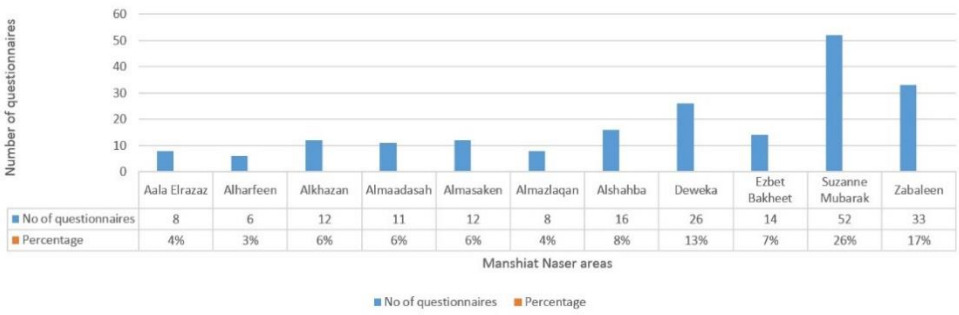
Based on ISDF, 2015; own fieldwork, 2015

Table 7.4: Details of the unsafe areas in Manshiat Naser

No.	Area name	Grade of unsafe area	Land tenure	Area size (km^2)	Number of housing units
1	Youth centre	1	State land	0.0462	578
2	Hadbat Alharfeen	2		0.2163	3,685
3	Wadi Faraoun 1	1		0.8904	2,177
4	Wadi Faraoun 2	2		0.37674	5,023
5	Mokattam Hills	1		0.26292	1,273
6	Ard Elsemad	1		0.0168	676
7	Elnersh	1		0.01302	661
8	Scattered areas	1		0.00672	113
Total				1.8291	14,186

Based on ISDF, 2015

Figure 7.15: Questionnaire distribution across Manshiat Naser's areas



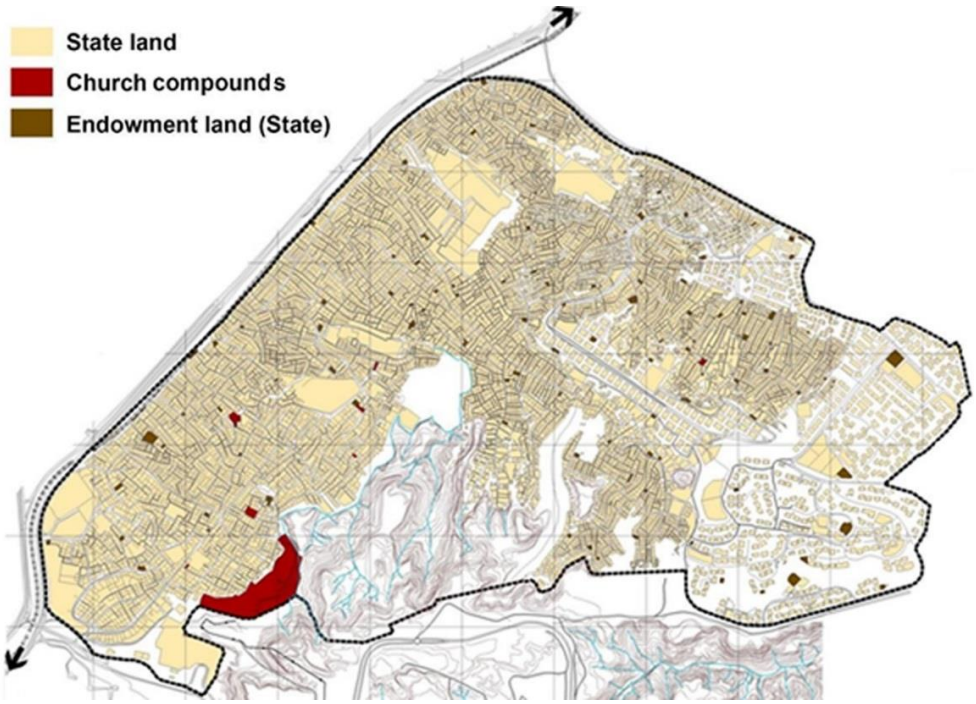
Based on own fieldwork, 2015

Moreover, in 1960, the government required the Gamalia site, nearby MN, to build a school and a hospital, but since the residents had managed to create a way of living for themselves, they refused to evacuate without being offered an alternative area to live. After months of negotiations, the state allowed them to relocate to state-owned land outside Cairo underneath the Mokattam Hills, where relocated residents from slum clearance in Eldarasa and Al-Azhar joined them. Initially, the main source of water was taps servicing nearby mosques and cemeteries (Own fieldwork, 2015; Personal interview with O5). In 1963, the government installed three water taps. An over 60 year-old man who resides in Almasaken (an area in MN), recalled the difficulties his mother encountered after moving to MN:

> "*We had nothing – no water, no electricity. I remember how my mother had to carry water from Sultan Alashraf Qaybay mosque every day and we were using kerosene lamps in the night.*" (translated from Arabic – own fieldwork, 2015).

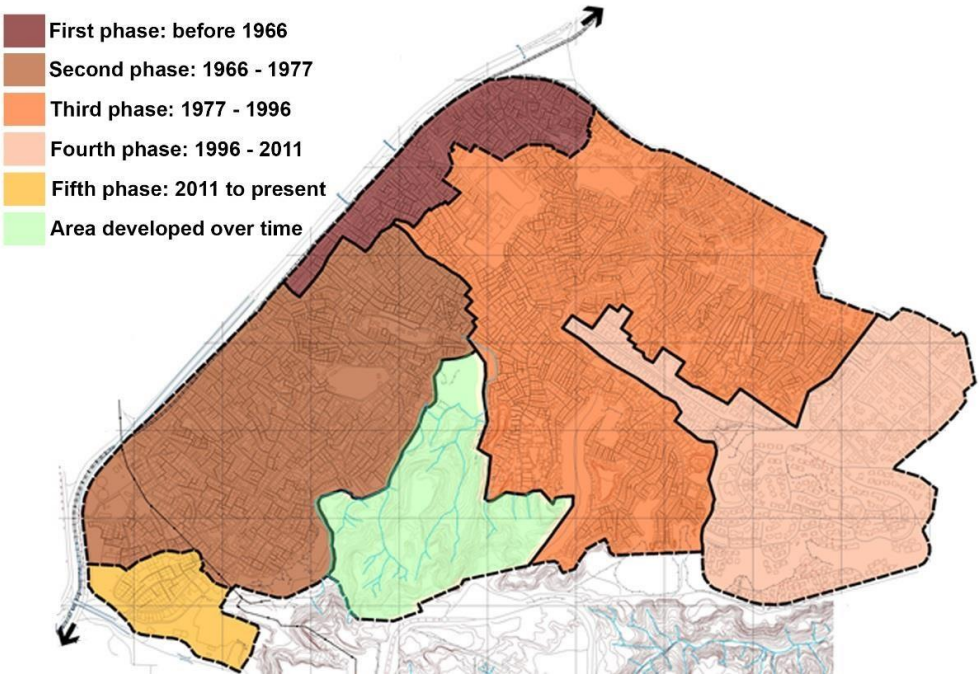
The construction workers building Nasr City, and 1967 war refugees from Sinai and Suez were the next people to move under the hills (Davis, 2007). Although the land was unserviced, having no infrastructure, and away from the city centre where most jobs were, people moved there in the hope of a better future once the officials had kept their promises to develop the area. During those early times, the residents had two main worries – land tenure insecurity and the neighbouring outlaws living in Mokattam Hills (Figure 7.16). These fears prompted the people to build rows of houses (average 100m²) alongside the main road, and incorporating their workshops. To increase the number of residents for safety reasons, they invited their relatives live in the new area, and thus the expansion started. To reduce the building costs, the house owners took part in the planning and building process, by researching the building materials market, the methods of building, and helping builders during house construction. The construction process, however, was supervised by private contractors hired by owners in order to ensure the quality of the building (see section 7.2). Initially, houses started by being built using only bricks but were gradually reinforced with concrete, which permitted a height increase up to 10 storeys. Later on, between the 1970s and 1980s, the government relocated migrants (originally from Upper Egypt oases and Coptic peasants) from Assiut, from Abuwafia in Shubra Alkhayma in the North of Greater Cairo to Manshiat Naser. The reason for their relocation was mainly locals' complaints as a result of the collected waste brought by those migrants in the neighbourhood. The main economic activity of these new inhabitants included waste recycling and garbage collection from Cairo, from where their name – 'the scavengers' – 'Zabaleen' (Figure 7.17 and Table 7.5) (Neamatalla, 1998; Fahmi and Sutton, 2010; Own fieldwork, 2015).

Figure 7.16: Land tenure in Manshiat Naser



Based on ISDF, 2015

Figure 7.17: Historical development of Manshiat Naser



Based on ISDF, 2015

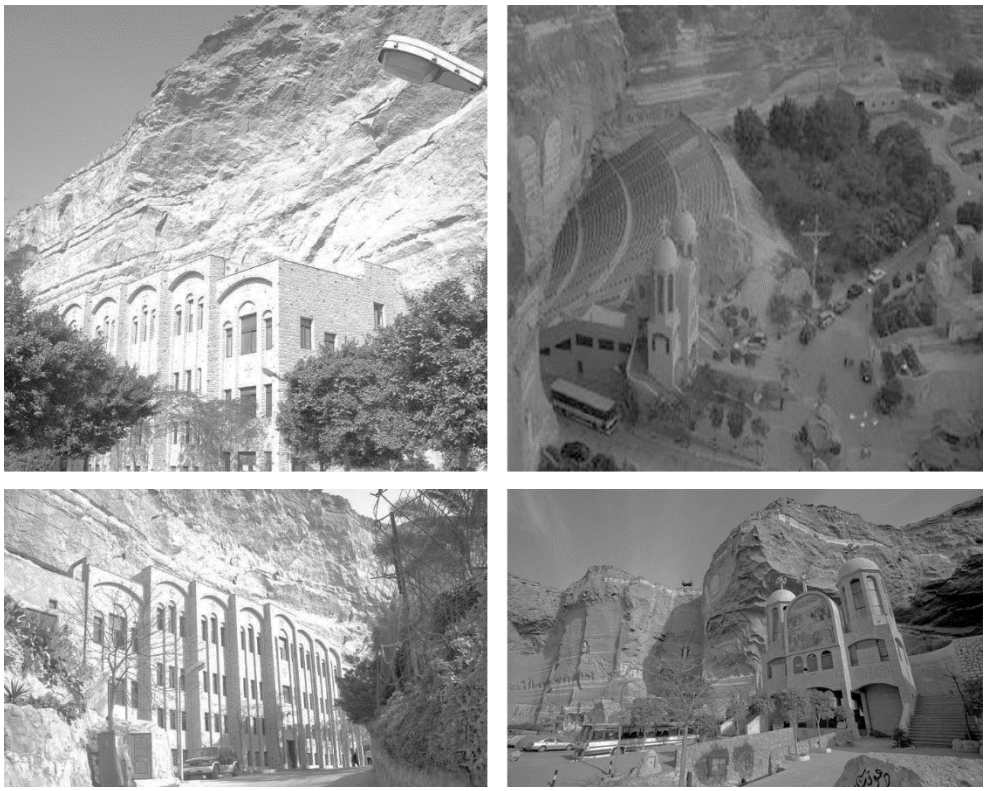
Table 7.5: Percentage of area size, population and density

Development phase	% of total area	% of total area population	Density (person/feddan)
First phase before 1966	5.85	2.73	160.16
Second phase 1966 -1977	25.24	42.69	580.25
Third phase 1977-1996	36.84	38.23	356.03
Fourth phase 1996-2011	18.39	13.70	255.54
Fifth phase 2011 to present	3.57	2.65	256.10
Area developed over time	10.11	0	0
Total	100	100	343.15

Based on ISDF, 2015

Eventually, two key events helped the establishment of Manshiat as a 'permanent' district – building the Monastery of St. Simon in 1975 and founding the 'Scavengers' syndicate' in 1984 (Plate 7.4) (Own fieldwork, 2015). Through the Monastery, which is one of the largest churches in the Middle East (Kipper *et al*., 2009), the area gained international connections, aid and technical support on how to improve the area, and the residents of Manshiat were represented locally by the heads of the church. This encouraged people to invest in permanent buildings and to be less troubled about evacuation. By founding the 'Scavengers' Syndicate', the area was able to organise itself and formulate official requests on behalf of the residents and represent them at the local government level. As a result, the people were eligible for credits which they used to purchase recycling machines, making from Zabaleen a self-managing area responsible for solid waste management (Own fieldwork, 2015), one of most difficult local administration agendas in Egypt (Mahsub, 2016). A middle-age female who works in recycling the waste collected by her family in Zabaleen, stated: "*Since the monastery helped us to buy a small recycling machine that cleans plastic bottles, we manage to recycle more and earn more*" (translated from Arabic – own fieldwork, 2015).

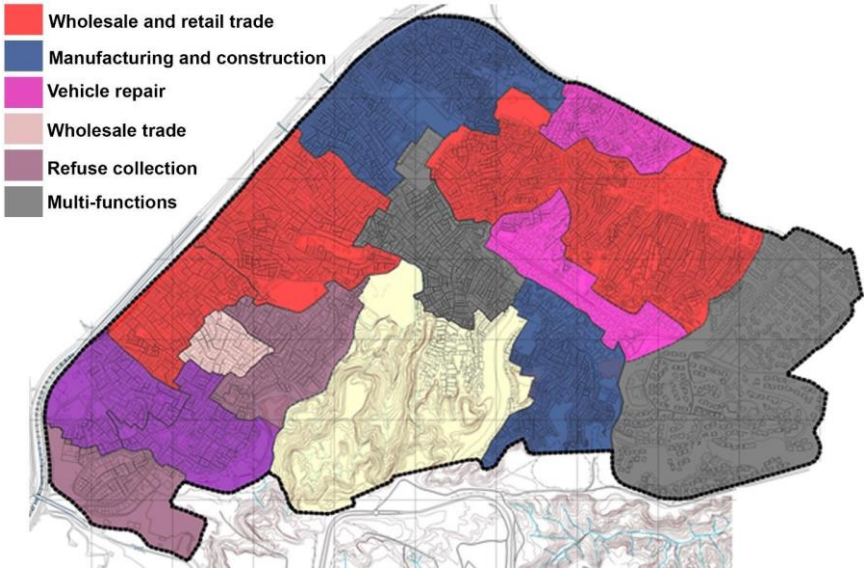
Plate 7.4: Monastery of Saint Simon in Zabaleen area



Based on own fieldwork, 2015

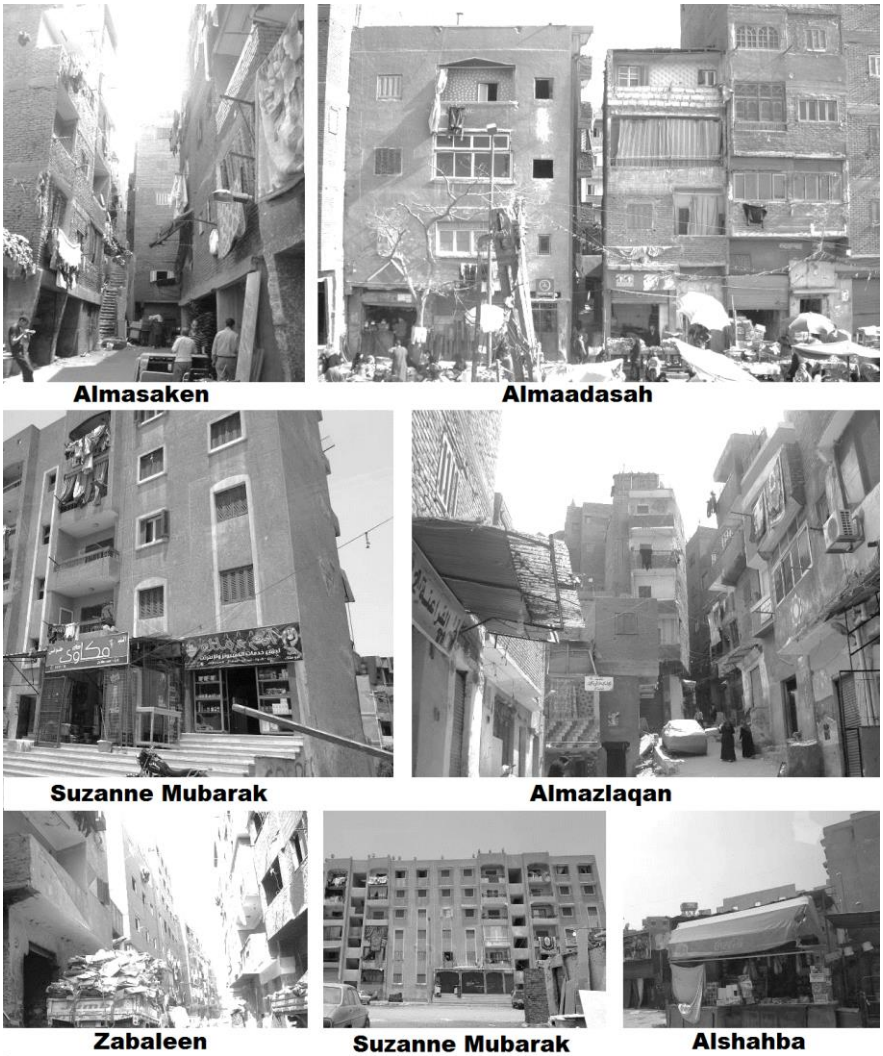
Another area that was established at a later stage in Manshiat Naser is 'Deweka', founded in 1977 by President Sadat as a temporary housing shelter to accommodate those whose homes had collapsed in Cairo, or those who had been relocated from other slum areas (Personal interview with O1). However, the government had not replaced the temporary shelters with housing units within the six months' time limit, and people were left to live in unserviced dwellings that lacked adequate infrastructure (Own fieldwork, 2015). The housing shelter comprised of different units consisting of either one, two or three rooms, and the facilities are shared between households. Deweka also includes the 'Artisan Houses' built in the 1980s as part of a governmental housing project. These blocks of flats were built to have ground floor workshops which it had a positive effect on the socio-economic development of the area (Figures 7.18 and 7.19, and Plate 7.5).

Figure 7.18: Main economic activities within Manshiat Naser



Based on ISDF, 2015

Plate 7.5: The widespread nature of mixed land use in Manshiat Naser



Based on own fieldwork, 2015

Figure 7.19: The order of current economic activities within MN

Area	Order of current economic activity		
	First	Second	Third
Ezbet Bakheet	Food industry	Textile	Metal industry
Almasaken	Metal industry	Furniture industry	Textile
Almazlaqan	Textile	Leather products	Crafts industry
Almaadasah	Metal industry	Furniture industry	
Elkhazan	Metal industry	Plastic industry	Furniture industry
Deweka	Mechanical Industry	Metal industry	Furniture industry
Aala Elrazaz	Metal industry	Leather products	Crafts industry
Zabbaleen	Transformative Industries	Plastic industry	Textile
Alharfeen	Mechanical Industry	Metal industry	Crafts industry
Alshahba	Metal industry	Food industry	Furniture industry
Suzanne Mubarak	shops	Textile	Crafts industry

Based on GIZ, 2007

When considering the areas that form Manshiat Naser, a few emerging differences can be mentioned. The residents of Zabaleen and Alkhazan have shown greater awareness of urban sustainability with 46% across MN. That was indicated by their involvement in the process of recycling. Another feature that sets Zabaleen apart from the other areas is its touristic site, the Monastery of St Simon. The residents of Alshahba (underneath Mokattam Hills) have revealed their dissatisfaction with the urban developers who have built Uptown Cairo gated communities on the Hills. And thus, 18% across MN have stated that they feel insecure about their lands and homes. Ezbet Bakheet has a serviced building which contains many NGOs (e.g. environmental improvement, youth, women's welfare), thus benefitted from GIZ's support in upgrading their infrastructure. Deweka is representative (24% across MN) of precarious housing type which consists of 1, 2, or 3 rooms per family with poor shared amenities.

Suzanne Mubarak and Alharfeen are governmental housing areas built in 1999, thus the only officially registered housing (21%). The other nine areas of MN were built on desert public land and do not have land tenure titling. Almazlaqan is characterised by its extensive produce market. This area benefits from better accessibility and connection to central Cairo. Almaadasah and Almasaken are known for their services – schools, health centre, cultural palace, youth centre which attend to the entire community of MN. Aala Elrazaz is characterised by its uneven topography, and as a result it suffers from poor infrastructure (e.g. regular water-cuts). 11% across MN have

reported infrastructure as one of the most noticeable problems in Aala Elrazaz. Another distinctive feature is its linear urban morphology, represented by its only main street. This causes concentration of social and commercial activities, giving the area a sense of crowdedness. The aim of studying all areas within MN was to illustrate its diversity.

The fieldwork questionnaire survey revealed that informal houses had been built incrementally, without obtaining building licences, with no regard for zoning laws and safety regulations. The building process is in a constant state of change, depending on the residents' financial means which determine the building materials to be used, and the height of the construction. 48% of the respondents had described 'Gameya' (an informal savings association) as the method they commonly use to save money for building or purchasing. This is an informal trust-based arrangement between people. Under this arrangement, each person contributes on a monthly basis with a defined amount of money for a previously agreed period. On a rota basis, each month a member receives the total amount of money, and the system continues until all members had received their share. In other words, this is an Egyptian example of an informal worldwide rotating credit scheme which satisfies both – consumption and production needs of the poor (Geertz, 1962; Van den Brink and Chavas, 1997; Rutherford, 2001).

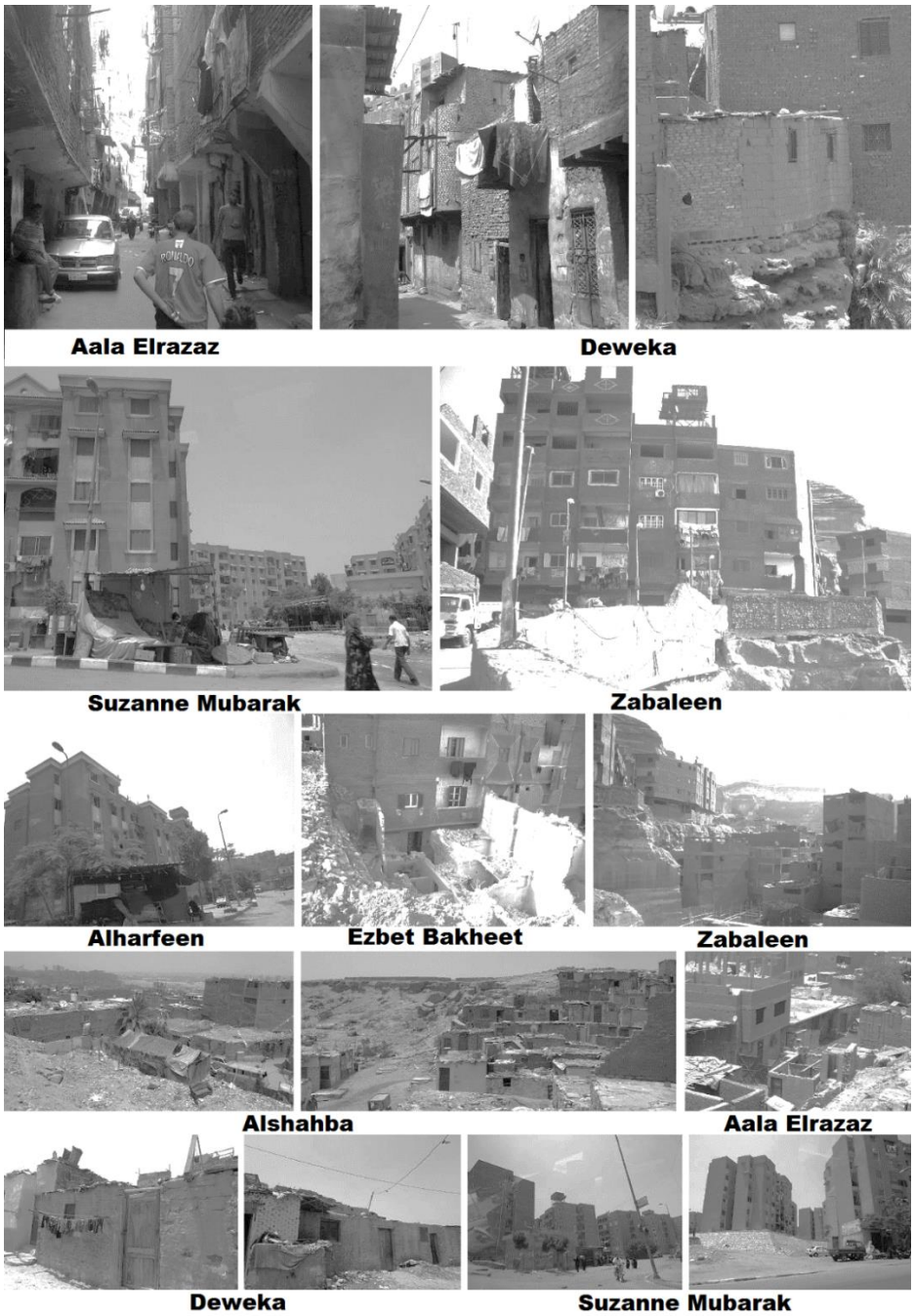
Furthermore, when asked about their opinions in relation to the building regulation, the large majority (81%) stated that it makes little difference whether they disregard the building codes or not, as they are able to avoid legal complications by either paying the fines or by briberies. However, regarding the safety regulations, the residents had declared that they would not put themselves and their families at risk by not building safely, and so they are convinced that their long building tradition, passed down through generations, ensures that their homes are safe. The residents' perception that informal housing is built safely has been reinforced by Sims (2012, p100) who stated:

> "*It is worth noting that in the 1992 earthquake in Cairo, practically all building collapses and the resulting fatalities occurred not in informal areas, but either in dilapidated historic parts of the city or in formal areas…where apartment blocks had been constructed by (sometimes) unscrupulous developers and contractors.*"

However, these safety indications or perceptions are something achieved ultimately towards the final stage of the incremental building process. Before then, most of these buildings are in a constant change to improve the quality and safety (Plate 7.6). In terms of land tenure, the land on which Manshiat Naser has been built was initially desert. At that time, the traditional land ownership law allowed people to claim the land they built on as theirs, as long as it was vacant and had not been previously claimed, especially in the absence of effective formal land ownership regulation. When the land started to become occupied and fewer plots were vacant, ownership was established through local contracts between the parties.

In the absence of state authority, the area organised itself informally according to traditions and the local culture, founding a local council 'Council of Arabs' (COA) (comprised of senior residents and different community groups representatives) responsible for solving problems and issues without state interference. The council members are seen by the local residents as entitled to scold those who break the rules of the community, due to the services they offer in the area. The COA is used by local government and NGOs to get their messages through in the community, to apply laws, to receive information from the area and get their consent for project implementation. However, some residents have mentioned that within the COA there are members who are authoritarian and corrupted. This results in constant changes in terms of who is accepted as a real leader in the community and this can vary from one situation to another and from small scale (i.e. street) to large scale (i.e. district).

Plate 7.6: Different types and physical characteristics of buildings



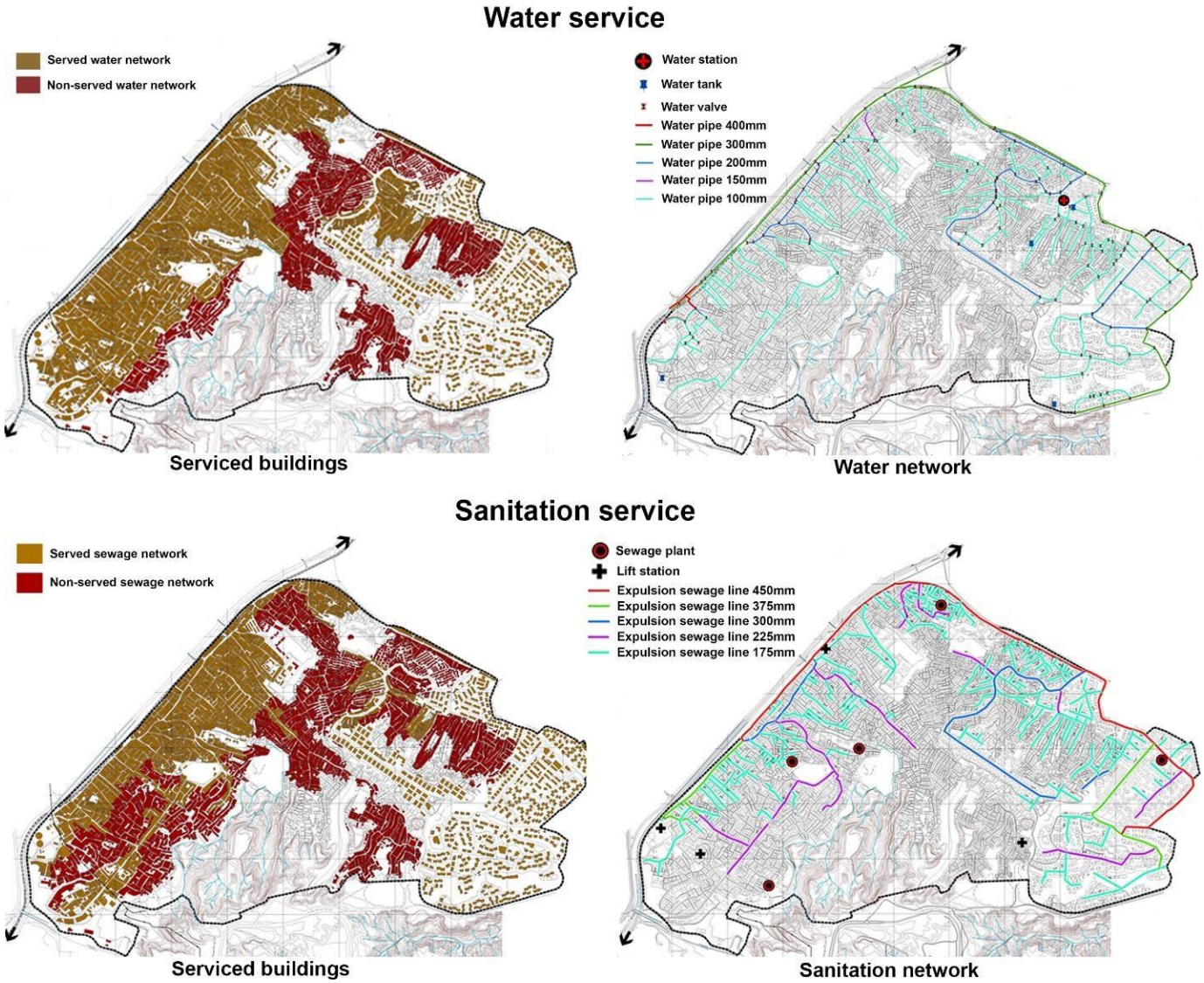
Based on own fieldwork, 2015

The findings suggest that the Manshiat Naser community is based on a tight social network in which local-level participation is very high; however, this decreases incrementally when those from outside the community are involved. This signifies that when NGOs get involved in local issues, residents will participate to some extent in their activities; this participation get less with the local government, and almost inexistent when dealing with the central government issues.

Manshiat Naser has received international attention vis-à-vis upgrading since 1977 when the World Bank proposed a ten-year upgrading scheme through two main approaches: titling land tenure and providing water and sanitation infrastructure. The first approach faced significant resistance from the government on the pretext that it would confer legitimacy for something that was initially illegal – squatting; thus this initiative was suspended. The second initiative was implemented only sporadically, and only half the residents have been connected to water and sewerage pipes. Residents reported that only those who had local investments managed to extend their domestic connections to the services provided by the World Bank (Figure 7.20) (Personal interviews with O7 and O15; Own fieldwork, 2015).

The economic findings show that 74% of the Alkhazan, Almaadasah, Almazlaqan and Almasaken residents are middle-income wage earners, in comparison to only 8% in Deweka, as a result of work opportunities due to their numerous businesses (see Figure 7.19 above). The wealthier residents are usually traders who have businesses in the Khan Alkhalili Bazaar, or somewhere else in old Cairo. Others own workshops and fabricate the products for these shops. In contrast, Deweka's residents are amongst the poorest groups in MN. They used to work in workshops, but since the local market (e.g. for products like rugs and other handcrafts) has been overtaken by the low-priced market from the Far East, they do not have stable jobs. Moreover, regarding the unemployment findings, Deweka represents 12% across MN. The social layers are replicated in the geography of the area, with the wealthier traders living in 4 to 10-storey maintained buildings along the main street, and the poorer living in sheds nearby the rock hills (Plate 7.7). Some have complained to the local council about social and economic marginalisation, some about poor accessibility (only three pedestrian bridges to access the main road) (Figure 7.21), while others mentioned high population density, poor infrastructure and services (i.e. education, health, and fire safety) (Plate 7.8).

Figure 7.20: The current state of water and sanitation provision within Manshiat Naser

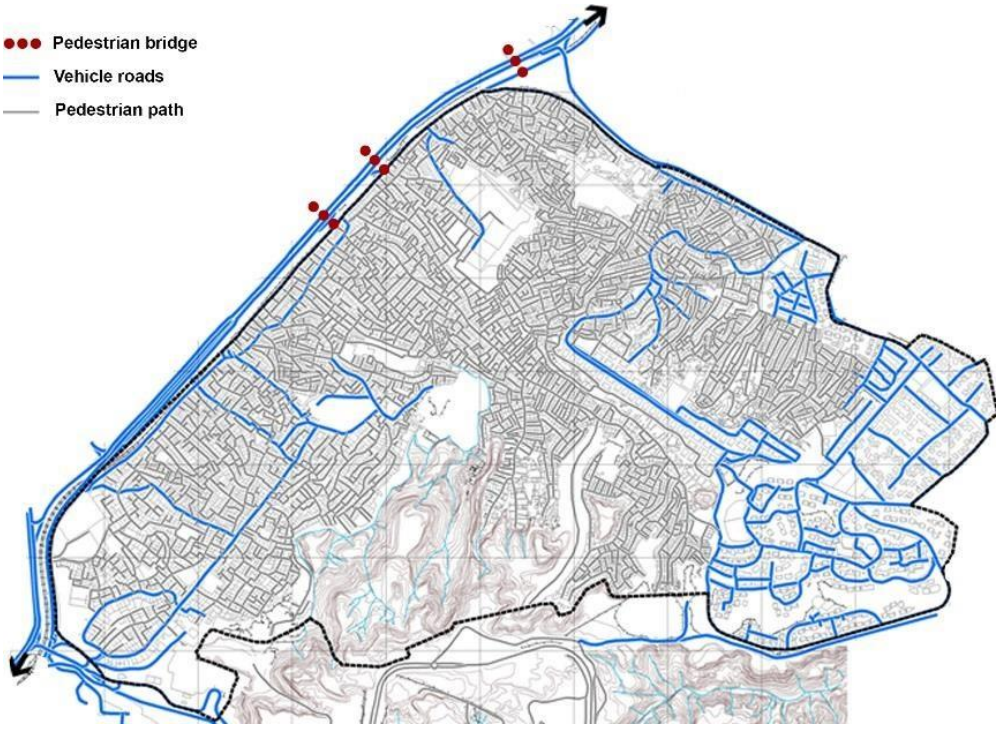


Based on ISDF, 2015

Plate 7.7: Different range of people living in Manshiat Naser

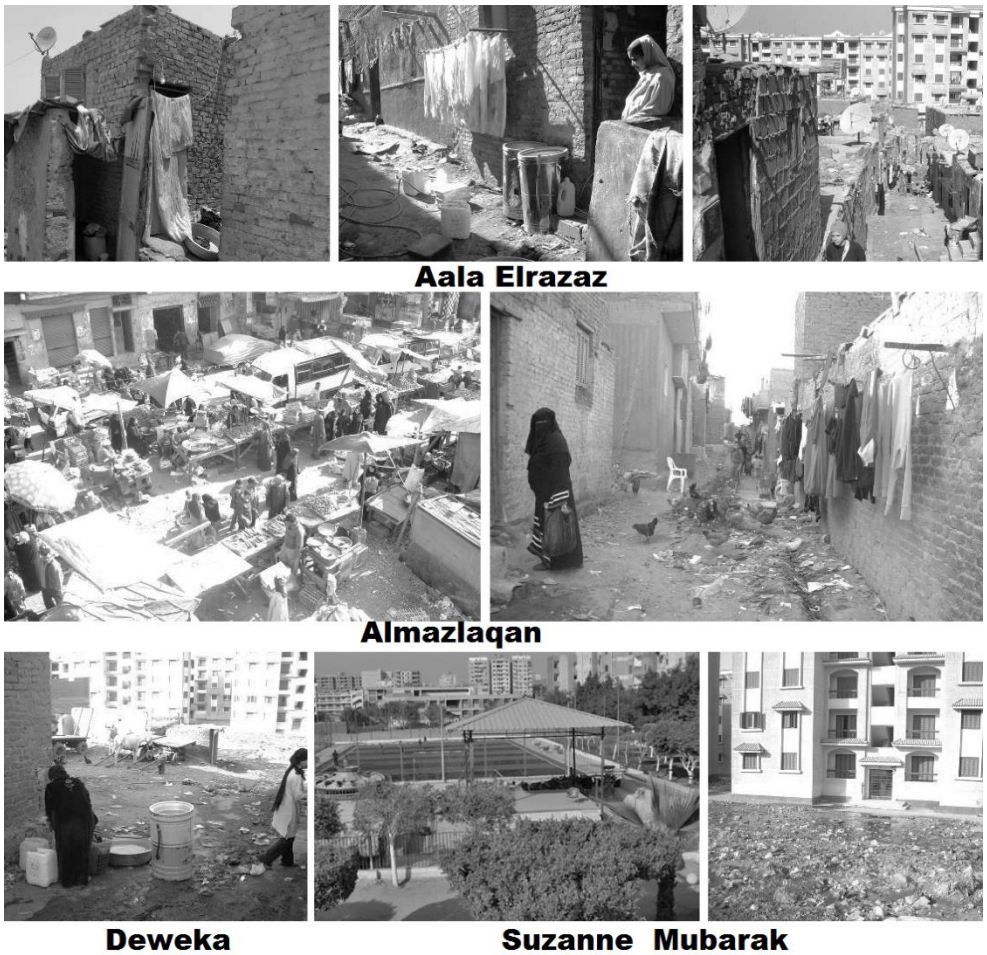
Based on own fieldwork, 2015

Figure 7.21: Circulation of vehicles and pedestrians in Manshiat Naser



Based on ISDF, 2015

Plate 7.8: Poor quality of services and infrastructure in Manshiat Naser

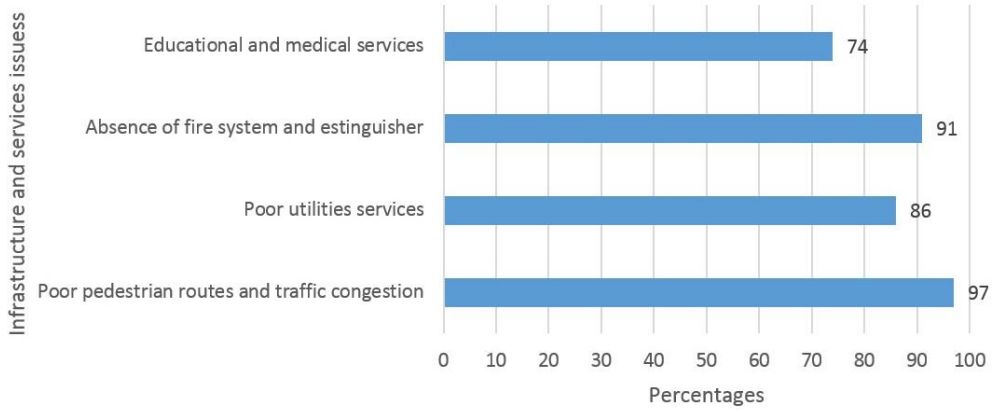


Based on own fieldwork, 2015

The following extract relates to the residents' general experience in this area. Some expressed their discontent in relation to Manshiat Naser's bad reputation amongst Cairenes. They disapproved of how the media portrays the area, and officials' opinion that Manshiat Naser is a dangerous place. One resident stated that life in their areas is not as bad or as unsafe as depicted. Other people claimed the general idea is that people living in this area are all poor and uneducated, and that Manshiat is an extremely dangerous place. The large majority claimed that they feel discriminated against, particularly in relation to infrastructure, services and employment opportunities (Figure 7.22). People criticised the local administration of Manshiat Naser for their 2015 – 2016 projects,

which included mainly road paving, road lighting, and establishment of four new markets (Cairo Governorate, 2016).

Figure 7.22: Manshiat Naser residents' perceptions of infrastructure and services



Based on own fieldwork, 2015

They expressed their dissatisfaction with how the budget has been spent in spite of people's real concerns regarding expanding the infrastructure, providing better services and increasing employment opportunities. Some of the people who reside at the foot of Mokattam Hills showed their feelings of misery when comparing their living conditions with those who live in the villas on top of the hills, which they dub 'Uptown Cairo'. One middle-aged female resident of Aala Elrazaz stated: "*How is it possible that they* [referring to the people living in the gated communities] have everything*, when we barely get enough water to drink? Is this fair?*" Another middle-aged female from Zabaleen responded: "*My daughter has to travel for hours just to go to secondary school in Bab Alkhalq* [a neighbourhood in central Cairo]*, when we could have one built here*." (translated from Arabic – own fieldwork, 2015). They described themselves as second-class citizens who have been abandoned by the government in a forsaken desert land (Plate 7.9). Similarly, an elderly man from Alshahba talked about his struggles to rebuild his home after it has been demolished by the government, stating: "*Since this people came* [referring to the nearby Uptown Cairo residents], *we have no rest.*

The government came and demolished my home. I rebuilt my house two times and God knows if I'll be able to build again." (translated from Arabic – own fieldwork, 2015). These people identified that they are growing indifferent towards improving their public-built environment. When they struggle with their conditions, planting trees or cleaning the roads lose importance.

Plate 7.9: The gated community of 'Uptown Cairo' on top of Mokattam Hills

Based on Emaarmisr, 2016

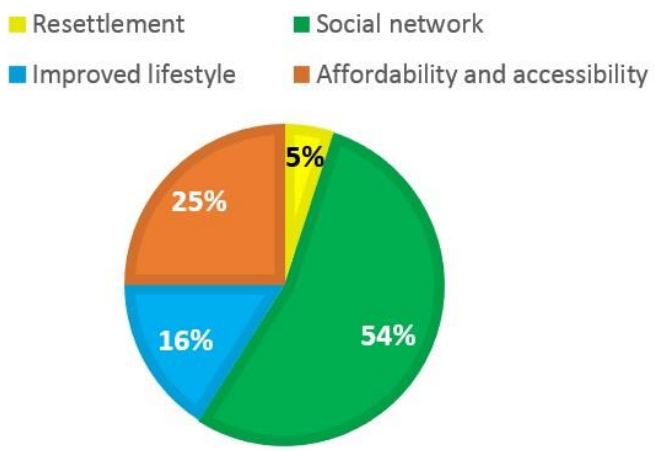
Many inhabitants of Manshiat Naser noted the benefits of living in the area (Figure 7.23). 54% of the respondents claimed that living in close proximity to their relatives helps them survive on a daily basis – looking after each other's children or elderly, sharing meals, running errands, and seeking advice. One resident said:

> *"Living in Manshiat Naser has its goods and bads. But that's everywhere, isn't it? One good thing here is having your family nearby. We always know we can rely on someone in times of need."* (translated from Arabic – own fieldwork, 2015)

In relation to the inability to secure housing in the formal sector, 25% of the residents have stated that Manshiat Naser was the only place where

they could afford buying a house and the cost of living. These residents stated that their current standards of living had improved compared to those of their parents or grandparents. 16% of the respondents have stated that improved lifestyle is one of the main reasons why they remained in the area. They attribute this to the ability to build permanent homes as opposed to their predecessors, who lived in precarious huts.

Figure 7.23: Reasons to live in MN



Based on own fieldwork, 2015

Another positive thing about living in Manshiat was said to be the involvement of various NGOs in the development of the area. Residents mentioned that GIZ collaborated with the people in 2008 and encouraged participation in formulating an area development plan consisting of titling land, improving the infrastructure, and paving the roads. The project, however, was stopped as a result of resistance from the government regarding land titling, high estimation of land price to be paid, intricate bureaucratic process, and changes in officials' personnel (Personal interview with N5). Civil society has also helped the residents increase the existing recycling business. People who are working or are connected in any way with the waste recycling process had stated that this business had increased job opportunities. This claim is supported by the study documenting that Cairo recycles 85% of its garbage (Fahmi

and Sutton, 2010) which is 22% higher than Austria (63%) (Planet Aid, 2015).

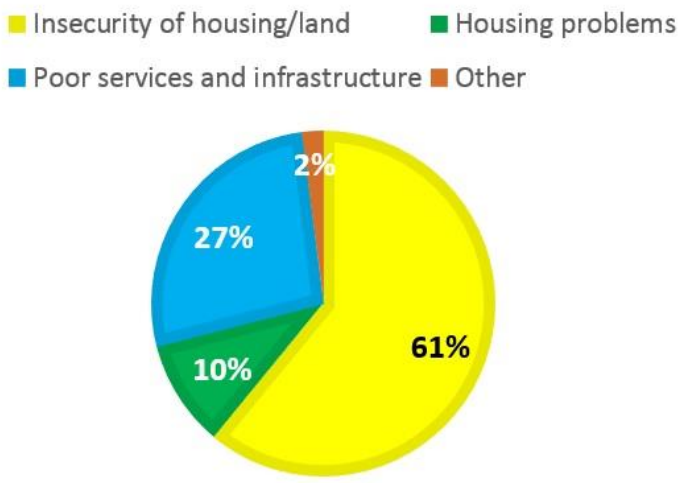
The flexibility assumed by the informality has allowed the residents to meet their individualised, as opposed to community, needs. A resident mentioned "*We just build according to what we need*" (translated from Arabic – own fieldwork, 2015). This was identified in the case study, when the residents were asked whether they would consider living in a house built using local materials, traditional architecture, and adaptive to climate. 42% of the respondents stated that they would accept, claiming that they already did use local materials in building their homes. Cairo is a living testimony that people know how to adapt the spaces according to their needs – some inhabitants build balconies or use their roofs to shelter their animals, others extend their apartments by adding an extra room. Informality is a common sight in today's formally-built blocks.

In terms of prospects for the future, 74% claimed that education and healthcare are what can help their children lead better lives. However, poverty pushes children to drop out of school, and start working to support their families. The findings of the questionnaire show that 32% of 198 respondents (head of households) living in Manshiat Naser are illiterate.

Four main noticeable problems in MN were reported by the respondents (Figure 7.24). 61% of the respondents stated that the most noticeable problem in MN is the insecurity of housing and land. Residents had testified that they have raised many concerns about safety due to rock collapses with the state since the 1990s (Plate 7.10). Part of Manshiat Naser is built on Mokattam Hills, which are made of limestone soil and layers of shale clay. In the absence of sewage networks, these layers absorb water, leading to the collapse of Hill rocks (Personal interviews with N4 and A1). The hazard has been increased by the construction of Uptown Cairo in 2006 which has caused a lack of stability due to constant

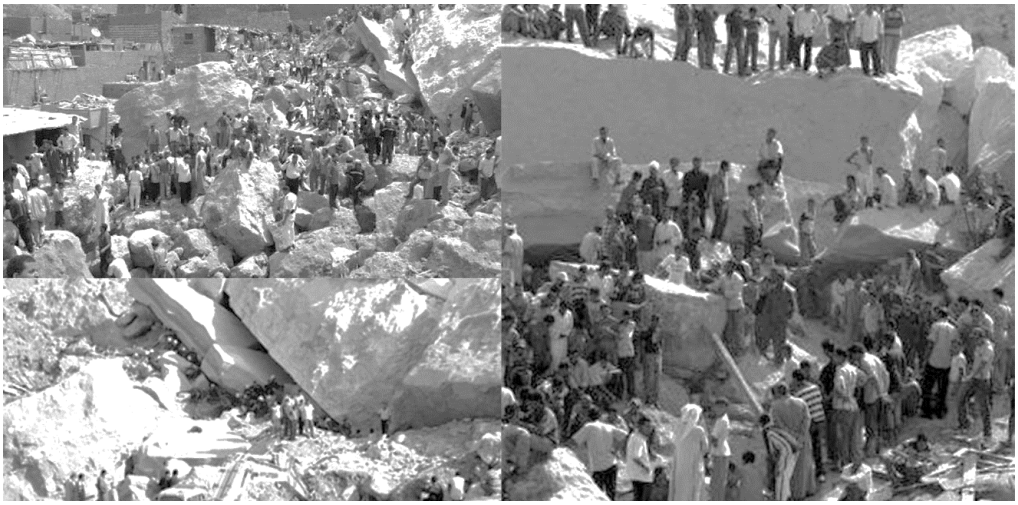
irrigation required by the vast green areas (Plate 7.11) (Personal interview with N7). This area was known for its instability even before Uptown Cairo was built; in 1993 and 2008 rocks fell from the Hills, killing over 150 people (Hadayt and Abozaid, 2008).

Figure 7.24: Most noticeable problems in MN



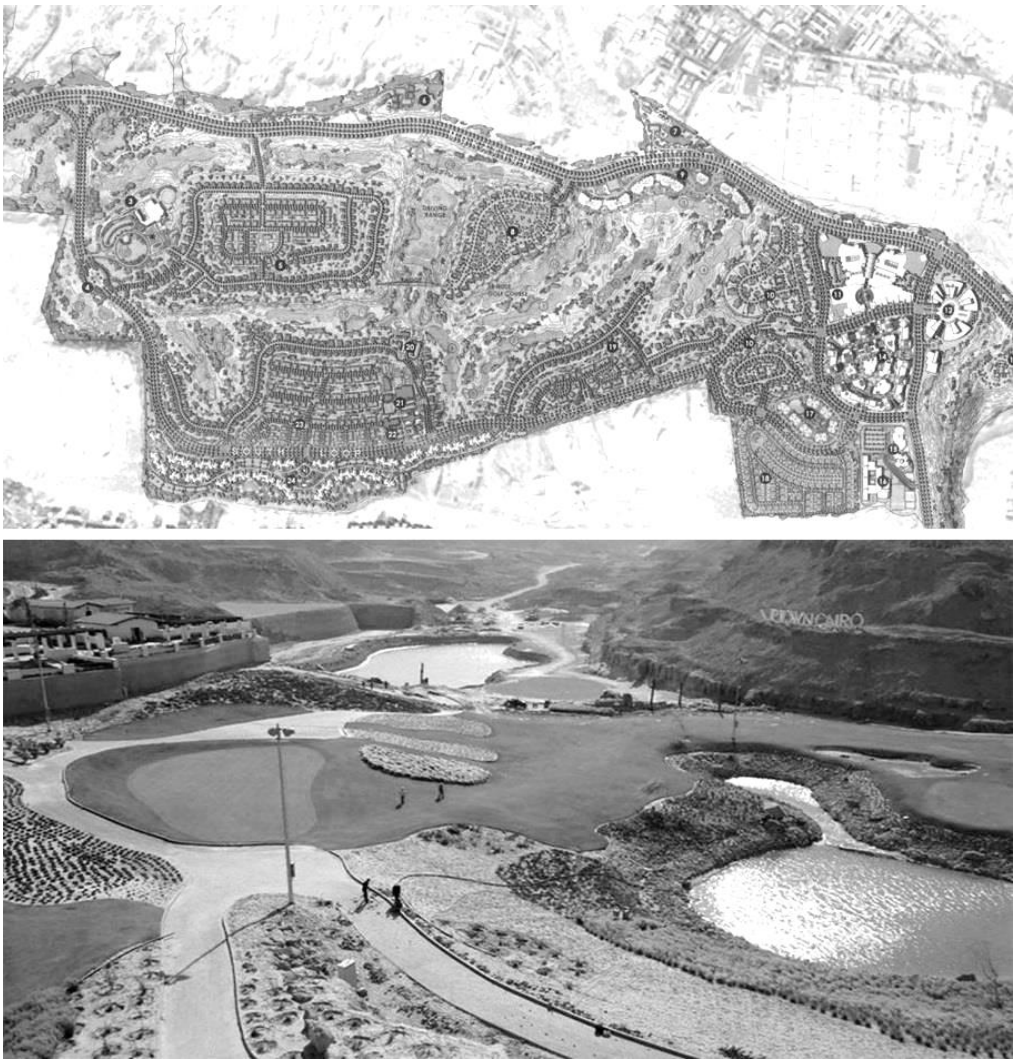
Based on own fieldwork, 2015

Plate 7.10: Manshiat Naser rockfalls



Based on ISDF, 2015

Plate 7. 11: 'Uptown Cairo' gated community on Mokattam Hills



Based on Emaarmisr, 2016

Two governmental projects (Susan Mubarak's housing project in 1998 and the Elasmarat housing project in 2014) have resettled those affected by the Mokattam Hills rockfall in New Deweka and East of Mokattam (Personal interviews with O10 and O12). However, the resettlement mechanism is the cause of public frustration as many people living today in Manshiat Naser had lied to get the apartments by telling the officials that their house was destroyed and their family was killed by the rocks although they have never been living anywhere near Deweka (Own fieldwork, 2015).

On the other hand, some of those who used to reside in the area and whose houses were destroyed by the rock fall could not get a flat either because they did not have papers to prove their residence in the area or because they could not pay the deposit and monthly instalments for the new flat. This triggered intensified use of the cleared land by the developers, who made large profits (Personal interview with N6). In this situation, many people who could not afford the land faked papers and borrowed money to bribe the officials in securing a home (Own fieldwork, 2015). However, the fortunate ones who managed to secure a new residence were complaining about the poor quality of these flats – wall cracks, water dripping from the walls, unsuitable size for their households, and poor services.

The study has identified that only 5% of all respondents had been resettled and went back to live in Manshiat Naser. These people were promised by the government in 2015 to be relocated in Elasmarat's (a nearby governmental housing project) but asked to pay LE300 monthly rent. However, they were unable to afford the rents due to lack of stable work. These people felt they had no choice but to return to Manshiat Naser (Own fieldwork, 2015). The fieldwork findings reveal the situation of the angered residents of Manshiat Naser, in which corruption, discrimination, unjust distribution mechanism, unsuitable resettlement governmental housing units, poor infrastructure and services, and unaffordability are broadly experienced. 61% of the respondents blamed the government for the problems in their area, and 35% blamed the developers.

Since people first settled in Manshiat Naser in the 1950s, the government planned to redevelop the area in 2007 with the help of national and international investments by announcing the new master plan of Cairo 2050 (revised Cairo 2052) (see Chapter 6). This plan aims to transform these areas into a big park and resettle the residents to Mokattam and 6th of October through projects such as Elasmarat and Long Live Egypt.

However, in practice there are no real signs of these projects ever becoming successful; between 2014 and 2015, the Informal Settlements Development Fund (ISDF) allocated an estimated LE33-50 million to paint the façade of 1150 buildings in four informal areas in Greater Cairo, including 211 façades in Manshiat Naser (Elgohary, 2014; Elbadwi, 2015). This project has proved limited in terms of improving the area's conditions (Personal interviews with O4 and O15).

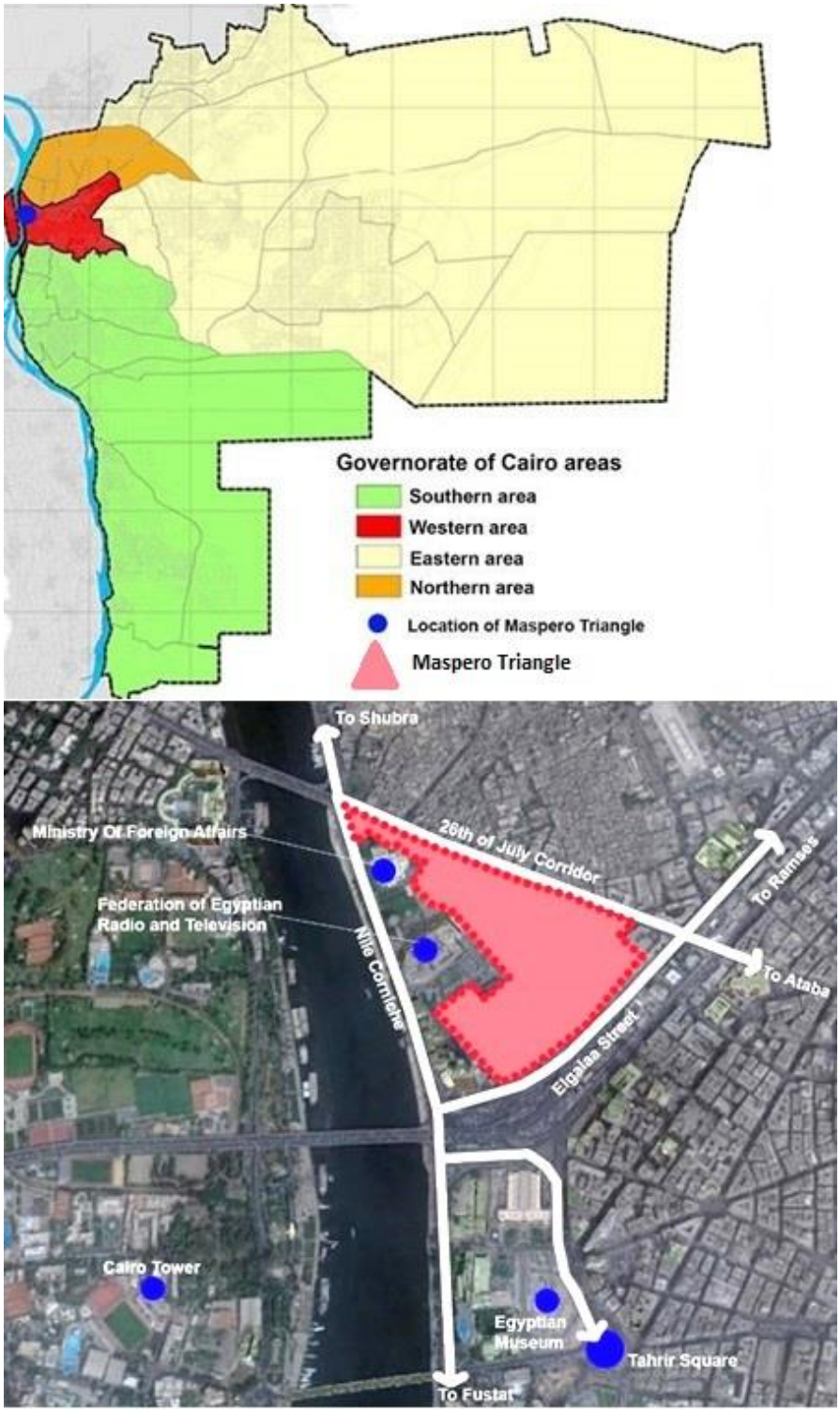
My fieldwork findings portray the community's scepticism regarding the various promises the government offers. The commonly broken promises impact negatively on the relations between the stakeholders involved in the housing processes. A resident concludes about the current situation of Manshiat Naser, that: "*Only time will tell what will happen next; until then we will carry on living in this uncertainty*" (translated from Arabic – own fieldwork, 2015).

7.3.2. Maspero Triangle

Maspero Triangle (MT) is located along the Nile in Bulaq district, less than 20 minutes' walk from Tahrir Square, central Cairo (Figure 7.25). It was named after the French Egyptologist, Professor Gaston Maspero, who was the director of the Egyptian Museum in 1914 (Personal interview with O15). The area is about 0.35 km^2 and accommodated around 11,722 residents in 2006, according to the census (CAPMAS, 2008b). The area is a contrasting sight - streets filled with luxurious vehicles, modern towers, and deteriorated and collapsed buildings. 48 questionnaires had been allocated to investigate the area. When walking around the area, I noticed the buildings made of brick, mud and wood with height ranging between 1 to 4 floors. 77% of the respondents depend on one to three public taps per street to get access to water and electricity from the national grid, however, in few cases the residents have to travel to the surrounding neighbourhoods to access such

services. 92% of the employed respondents are usually employed by small local businesses or find work close-by central Cairo.

Figure 7.25: Site location of Maspero Triangle within Cairo Governorate



Based on Google Maps, 2016

Plate 7.12: Maspero Triangle buildings characteristics

Based on own fieldwork, 2015

The formation of Bulaq started in the late 12th century with the constant accumulation of River Nile's sediment and the ongoing formation of a plain alongside the east shore of Cairo. The region was developed back then into an upper-class suburb with vast orchards, farms and palaces (Abu-Lughod, 1971; Hanna, 1983). The area went through six main urban transformations over three periods – Egyptian Karimi trade merchants (1150-1805); Muhammad Ali and his successors (1805-1952); and contemporary period (1952- present). During the first period, Karimi merchants facilitated the establishment of markets, hospitals,

charitable schools, mosques, palaces. During the second period, in 1422 Bulaq became the main spice trade port of Cairo and with this it evolved into a working district (Hanna, 1983; Abu-Lughod, 1991) (see Appendix B).

During Mohamed Ali's era, Bulaq experienced real growth as a result of the establishment of the route linking it to Azbakia Square, and foundation of industries such as a printing press, metal working and machine shops, and naval arsenal. However, under Khedive Ismail, the port lost its importance, becoming a deteriorating industrial zone characterised by unfit housing and poor social conditions. This happened alongside the flourishing of new Khedive Cairo and its westernised neighbourhoods in downtown Cairo. This encouraged the wealthy people to leave Bulaq and relocate to these neighbourhoods (see Appendix B).

During the 1890s and early decades of the twentieth century, Bulaq started a period of land ownership confusion which still affects Maspero Triangle. The original landowner of this neighbourhood was Circassian Pasha, who had given parts of the land to his employees and servants to be used for 20 years under supervision of Ministry of Awqaf, before he left Egypt in 1948. After the 20 years had passed, the Circassian heirs sold the land to Saudi and Kuwaiti companies, although still occupied by its local residents (Own fieldwork, 2015; Personal interview with O4).

During the 1890s, another practice contributed to the deterioration of Bulaq's urban fabric – the allotment of vacant land (800 – 1300m^2 plots) to private investors. The Ministry of Public Works parcelled the region and sold it to the investors without enforcing any land subdivision or planning regulations (Selim, 2016). These investors took the opportunity to gain more profit by dividing the lands into smaller parcels of 80-100m^2 and selling them. Thus, the land ownership is quite complicated in the area (Figure 7.26). The absence of effective regulations encouraged low-income groups to build unplanned houses due to their affordability.

Owing to the rise of industrial activities during the 19th century, Bulaq saw an increased influx of rural immigrants. By 1892, Bulaq was almost entirely inhabited and its residents already struggled to live in poor conditions (Own fieldwork, 2015; Personal interviews with O4 and O9; Arnaud, 2002).

Figure 7.26: Land tenure in the Maspero Triangle

Based on ISDF, 2015

Another important factor that shaped the area was the rapid urban growth during the 1956 industrialisation in Shubra Elkhima district (Elwaly, 1993). Moreover, Bulaq received many residents who abandoned their homes after the Suez Canal invasion in 1967. Many of these families joined their relatives in Maspero Triangle, living in

overcrowded conditions. This is illustrated by the 70.3% of the respondents who reported that their relatives live in the same area (Table 7.6) (Own fieldwork, 2015). Those migrants who could afford rented accommodation went either for the old districts or squatter settlements located in the city suburbs. In 1947 Bulaq housed over 267,000 people and by 1960 its population had increased to 350,000 (Abu-Lughod, 1971). It is worth noting that in 1952 the Cairo Fire affected some parts of Maspero Triangle, causing some damage to the buildings (Ibrahim, 1999; Own fieldwork, 2015).

Table 7.6: The high percentage of relatives living in Maspero Triangle

Location of Maspero Triangle residents' relatives	Outside the area	Same area	Same street	Same house
Percentage (%)	29.7	17.6	25.4	27.3

Based on own fieldwork, 2015

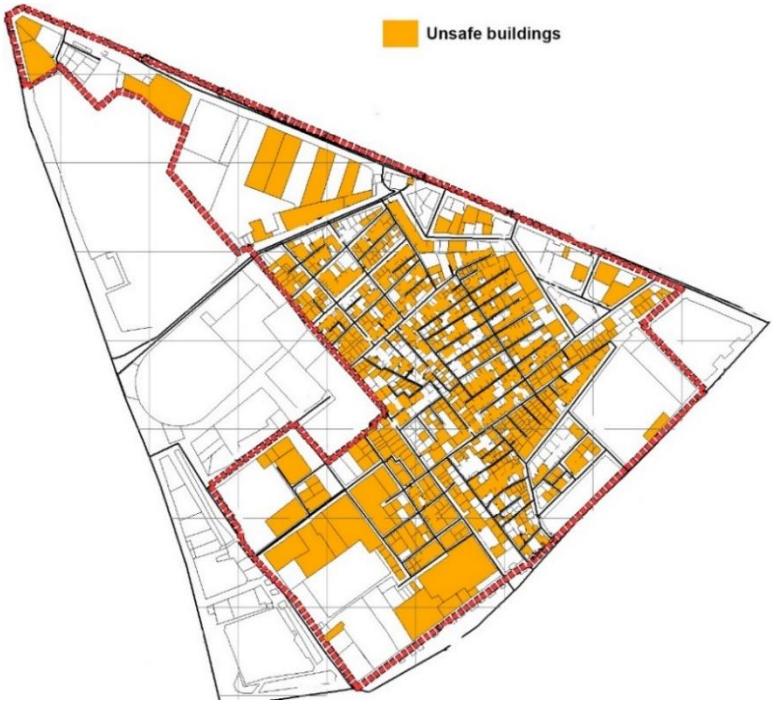
The contemporary period: in 1956, Naser issued a decree by which the era of grand projects started. One of these projects was the Nile Boulevard (40km long). However, repairing the deteriorated urban fabric of Cairo's old quarters was not a priority for the government (Ibrahim, 1999; Aburish, 2004). In 1963, the Cairo governorate attempted to replan Maspero Triangle; however it failed to be implemented due to people's resentment and political unrest in 1967. The 1978 redevelopment plan had the same outcome, aiming mainly for the interests of the powerful developers (Own fieldwork, 2015; Personal interviews with O1 and O15).

During the 20th century, Maspero Triangle went through major transformations, in which skyscrapers compete to assert their supremacy in the urban landscape. However, after the 1992 earthquake, many old buildings were damaged, forcing people to accept the relocation to 6th of October, Elsayeda Zaineb, and Wailee (Own fieldwork, 2015). As a result, the state and public companies now own more than 53% of Maspero's land (Personal interview with O4; ISDD, 2015). The strategic location of Maspero Triangle has attracted investors and developers who do not plan

for the low-income inhabitants (Personal interview with P5) but for the rich, encouraged by the state's modern vision of Cairo.

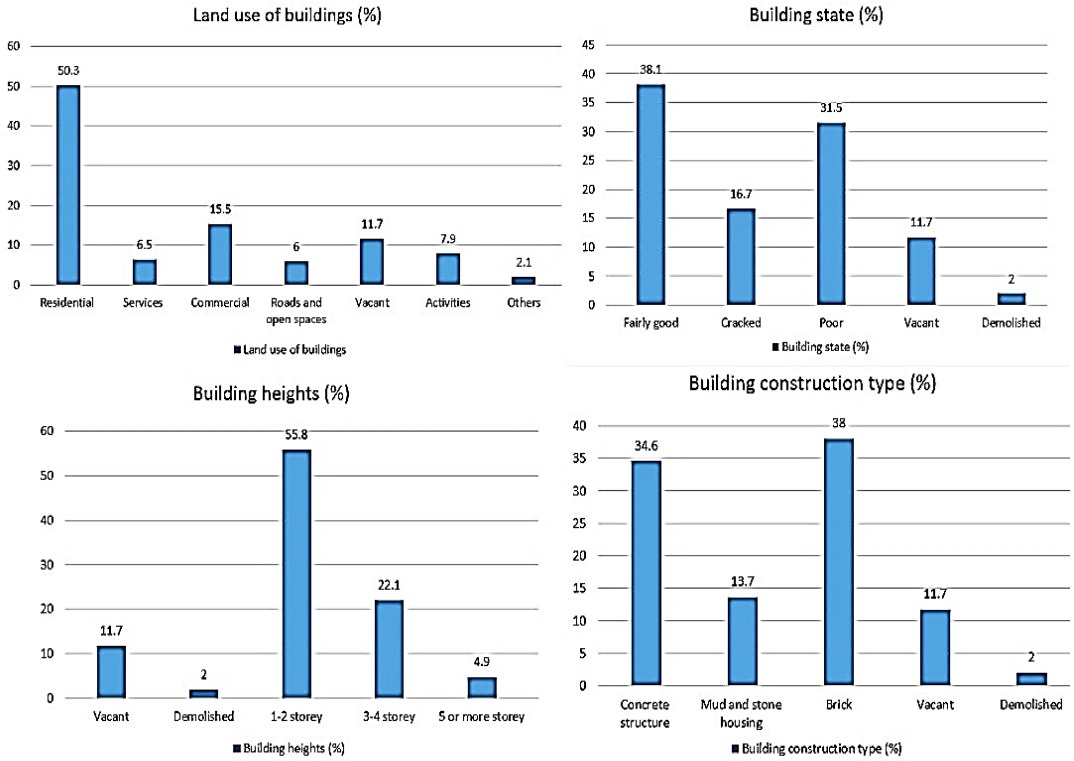
A large area of Maspero Triangle's built environment is considered unsafe by ISDF (Figure 7.27). Regarding the landuse, MT is dominated by three main activities residential (50.3%), commercial (15.5%) and vacant land (11.7%). Considering its central location, and compared to Cairo's high percentage of residential buildings (98%), MT's low percentage denotes the variety of services provided within the area – commercial, industrial, educational, administrative. By contrast, the high percentage of vacant land in the proximity of the overcrowded centre reveals the complexity of maintaining MT's buildings. 94% of the respondents are low-income, and cannot afford the maintenance costs. Over time, the buildings collapse and remain deserted places. Considering the building quality, the buildings are either fairly good (38.1%), poor (31.5%), or cracked (16.7%). Although the overall quality of the buildings in MT is considered as good, this is because they represent the administrative, educational, and commercial buildings. 58.2% of residential buildings are of poor quality due to high percentage (almost 78%) of low-rise buildings and the majority (51.7%) of mud, stone, and brick buildings. This explains why the ISDF classifies the area as unsafe (ISDF, 2015) (Figures 7.28 and 7.29).

Figure 7.27: Maspero Triangle unsafe buildings



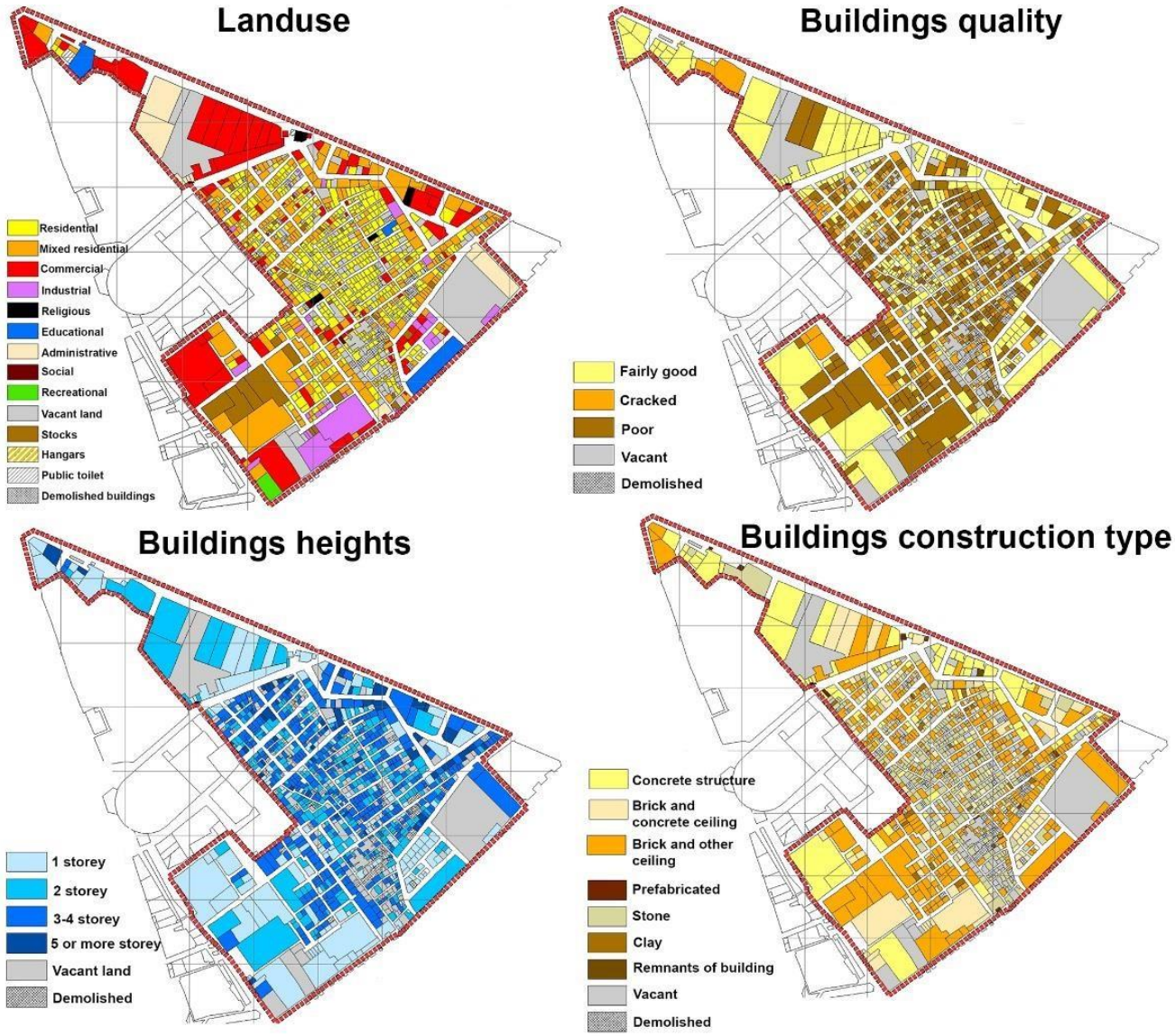
Based on ISDF, 2015

Figure 7.28: Statistics of MT's buildings characteristics



Based on ISDF, 2015

Figure 7.29: Characteristics of buildings in Maspero Triangle



Based on ISDF, 2015

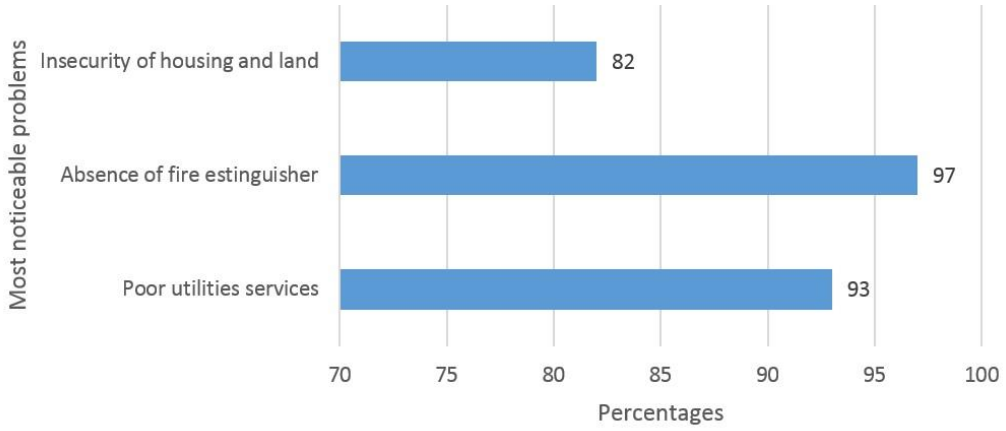
In July 2015, the Italian Consulate was targeted by a terrorist explosion, damaging not only that building but also many of Maspero's houses. The contractors hired by Cairo Governorate to renovate the affected houses caused confusion amongst the residents. While the Arab Contractors company worked on repairing the 55 houses (Own fieldwork, 2015), the Fahimko company was hired to demolish 10 out of those 55 houses. 'Association of Maspero Triangle's residents to defend their land and housing', an NGO established in 2008, declared that the affected buildings required only restoration work (Personal interview with N6). However, the restoration work was carried out only superficially – façade painting and external window replacement, without any structural-related work (Plate 7.13) (Own fieldwork, 2015). This was expressed by an over-60-year-old female who stated while showing the damage to her house: "*The government is trying to trick who, here? Sending people only to paint. They don't care about us*" (translated from Arabic – own fieldwork, 2015).

Plate 7.13: Buildings restoration after the attack nearby the Italian Consulate

Based on own Fieldwork, 2015

During my fieldwork, some residents claimed to have approached the workers at that time to show them the damage inside their homes but the workers had responded that they follow the given orders from the local authority. The same attitude is displayed today too in Maspero Triangle, when the 2015 – 2016 local administration work was limited only to garbage collection, tree planting, road lighting and road paving (Cairo Governorate, 2016). The study found that people perceived those activities as not the most essential, as they mentioned installing fire safety measures would be more beneficial for the local area than road paving, considering that 49.7% of buildings is represented by the non-residential. Some of these buildings are industrial while the residential buildings in the area have a high percentage of wood features, and they are seen by the residents as a potential fire risk. Thus, 97% of the respondents indicated the need of having a fire extinguisher. The finding is voiced by a middle-aged man who owns a local café who commented on the need of fire safety measures in the area: "*God forbid a fire starts. We wouldn't know how to put it down even though we are so close to the river. The government doesn't take an action until a disaster happens*" (translated from Arabic – own fieldwork, 2015). These concerns were based on the sequence of fire events that took place over the last couple of years in central of Cairo (Ghareb, 2016). 93% of the respondents have stated that the government should invest more in improving the infrastructure in the area.

Figure 7.30: Maspero Triangle's most noticeable problems



Based on own Fieldwork, 2015

The Maspero redevelopment plan was presented in an international contest which ended in November 2015 with the announcement of the British architecture firm, Foster + Partners, as the winner. It is worth considering that the judging panel comprised of the MHUUC Minister, GOPP Chief and four international architects from the United Kingdom, Spain and Brazil, with no local representative. Local officials have only been selected to communicate peoples' opinions during discussions (Personal interview with O17). The choice of Foster + Partners to plan MT has come under criticism for various reasons such as the project's poor public participation, the failure to preserve the 19th century historical buildings, and the attempt to apply modern architecture without taking into account the socio-economic aspects of the locality. Moreover, 87% of the respondents stated that they would prefer living in a house built using local materials, traditional architecture and adapted to the local climate. They claimed that their current homes incorporate some of these features. Foster + Partners' vision is a modernist one with glass buildings, extravagant streets and sophisticated green roofs, triggering the locals' distrust of the government's proposals (Plates 7.14, 7.15 and 7.16). This collective view has been simply voiced by one resident who said:

"Whatever the country does – is for the rich, not for us. As our lifestyle does not fit in, we have no place in this new project and we will end up being kicked out of our homes" (translated from Arabic - own fieldwork, 2015).

Madd', a local NGO comprised of a group of urban researchers and independent architects, works on helping the local residents know their rights, and on creating an alternative redevelopment plan that expresses the residents' views (Personal interview with N7).

Plate 7.14: Maspero Triangle redevelopment competition

Based on ISDF, 2015; GOPP, 2015

Plate 7.15: Maspero Triangle redevelopment competition winner (Foster + Partners)

Based on ISDF, 2015; GOPP, 2015

Plate 7.16: 19th century architecture features of Maspero Triangle's buildings

Based on own Fieldwork, 2015

In July 2017, the Cairo Governorate distributed a 'Wish application' form amongst the locals to choose among three options. The first is a new unit ($50m^2$) in the redevelopment project at a price of LE600,000 with 7% interest over the remaining instalments that range between LE4,200 to

5,600. The second option is to receive compensation money and use it as deposit for a unit in one of the new cities (6th of October, Badr or Elubour) and pay the rest over a period of twenty years. Third option is to get a financial compensation based on the number of rooms (not by area), with a set price of LE60,000 per room and LE40,000 transfer expenses. It comes as no surprise that 94% of the interviewed residents had refused all three options, considering the housing prices and the residents' circumstances; none of the governmental options are realistic for the locals (Own fieldwork, 2015, Personal interview with P5). A local claimed that he pays only LE10 rent per month out of his LE1,200 salary, on which his four family members barely live. In the area, the average rent is LE20 a month, which is much lower than in other areas. This was based on the average of the 71% respondents who stated they are renting. A further investigation showed that those residents benefitted from the rent control policy which keeps the rent low and transfers the tenancy contract to the descendants (see section 5.3.1). During the negotiation period, the locals offered to pay LE350 a month as instalments for the new units but the government asked them to pay 10 times that money in order to make up the value of the renovated area.

New projects do not succeed in gaining the residents' support, and seem to always have interests that do not benefit the majority (Personal interviews with A3 and P1). Hence, 78% of the respondents perceive the government as just promoting an image that reflects the division between the regime's top-down policy and the reality of its implementation. Although the locals have given their consent for the area to be upgraded, they fear eviction or unsuitable resettlement. 22% of the respondents expressed their concerns regarding the redevelopment of their area; they are worried their area will have the same fate as the neighbourhood in Ramlet Bulaq which underwent gentrification to build Cairo Twin-World Trade Centre over its local factories (textile, wood, glass, marble, and steel) (Own fieldwork, 2015). Ramlet Bulaq residents claim that the

developers promised them very different outcomes (Ateya, 2010; Zayed, 2014).

By contrast, Cairo governorate states that most people live illegally as either they do not pay rents or due to loss of ownership along the years (Personal interviews with O12 and O15). During my study fieldwork, it has been revealed that a house as small as 30m^2 could be owned by over 100 heirs. ISDF and Cairo governorate along with all developers have voiced their worries regarding the real number of beneficiaries who claim compensation. This situation is aggravated by the compensation hunters – people who initially own homes somewhere else but move in temporally in the targeted areas to ask for compensations and once they receive it, they move to another place (Own fieldwork, 2015).

The poor are unfortunately caught up in the middle of this money struggle, with no alternative to find a different home. When offered to be relocated to the new cities in the desert, they passionately articulated their disapproval, as a middle-aged man stated:

> *"We've been here for five generations. This is the only place we know. This is our home; we belong here. Here we work, raise our children, and bury our elders*, while another claimed: *The government does not care about us; they want our house to collapse on me and my family so they can take our land"* (translated from Arabic - own fieldwork, 2015).

This was clear from Cairo governorate that stopped issuing any restoration licences in the area in order to let the buildings deteriorate (Personal interview with N7). This situation is reflected in the sharp decline in the number of families living in the area over a period of twenty years, decreasing from 42,000 households in the 1992 survey to 4,600 in 2015 (Personal interview with O17).

As a result of the many discussions held with various housing stakeholders, it became clear that one of the main issues is lack of trust among the stakeholders (e.g. government, owners, developers, residents), which puts pressure on any development plans. Everyone has a different agenda, and almost no-one is willing to accept the other's development plans as they feel are not benefiting from them. The state is perceived as a biased player that does not represent the powerless and voiceless. Bulaq's representative in the Parliament does not work closely with the people it represents to deliver their views, nor does it attend the local meetings. The current situation of Maspero Triangle is aptly summarised by an over-60 female who claimed that "*Maspero Triangle sums up most of Cairo's problems*" (translated from Arabic - own fieldwork, 2015).

7.4. Evaluation and conclusion

Housing crisis in Cairo is not only a result of a gap between the number of households and the available number of affordable units, but also due to the increasing number of newly formed families unable to afford housing units, and furthermore to a succession of ineffective housing polices (see Chapter 5). Considering the economic and political situation in Egypt over the last seventy years, it comes as no surprise that people have been left to their own devices to provide a shelter for themselves and their households. Building informally has been for many reasons the option most accessible and affordable to 63% of Cairo's population (Sims, 2012).

In trying to acquire a home, people are challenged by two key issues: the unaffordability of the formal housing in the new cities outside Cairo and the lack of access to rent-controlled housing in the old city despite the large number of vacant units (see Chapters 5, 6 and 8). These two main challenges leave people with no option other than contributing to the growth of the informal sector. Moreover, Cairo has to house the increasing

number of rural migrants beside the already large population, which has augmented the housing shortage. As a result, the housing supply has become unaffordable for the large majority, causing a rapid growth of informal areas.

In order to bypass the bureaucracy associated with formal housing, Cairenes prefer to spend extra money in briberies, which costs them less than the formal provision, but allows them to build a roof above their heads. Moreover, the ineffective landuse policies and development control systems impede the access to land and equity in Egypt, especially in Cairo, where this leads to a land tenure system based on patron-client relationships. The land policies have created an inefficient system of land ownership and registration that has affected the land market. The outdated public land administration in Cairo does not meet residents' present needs and the demands for competitiveness (see Chapter 6).

For those who cannot afford to own a shelter in formal housing, informal areas have acted as powerful pull-forces by nurturing social networks while providing alternative shelter and an adequate location in relation to the workplace. Conversely, the formal planning system overlooks the social needs of the residents, although the building patterns, plots, and streets may serve functional needs. Thus, informal settlements should be re-evaluated in order to understand the aspects upon which residential ownership choices are based. These aspects can then be replicated in the planning of the new settlements to ensure the design appeals to the future residents (Personal interview with N3).

The expansion of housing informality in Cairo has not been only due to rising poverty levels, but has been promoted by the implementation of various policies, along with market dynamics (Piffero, 2009). Large-scale projects to redirect the surplus of population in Cairo and to deal with the expansion of the informal sector have been established away from Cairo, on desert lands. However, very little effort has been invested in upgrading

the existing city, its infrastructure, and public services (Dorman, 2007). The state has shown its incapacity to help its people meet their basic needs. Moreover, the manner in which the government has planned for formal housing development, proved to have very limited impact in its battle against informality (see Chapter 6, 8, and Appendix C).

The socio-economic reality of the poor relies upon a form of self-exploitation in informal urban economies which generates only insignificant revenues (Tripp, 1997; Lorenço-Lindell, 2002; Davis, 2004; Myers and Murray, 2006). Also, even in some of Cairo's districts in which officials are quick to respond to residents' pressure, local governments cannot maintain a balance between the demand and supply of basic social services, infrastructure, and equal access to resources (Own fieldwork, 2015). Therefore, people have had to look beyond conventional routes to obtain access to income, land, shelter, and vital social services (Tripp, 1992; Stren and Halfani, 2001).

In the face of such a discrepancy, when compared to the elites' lifestyle, one cannot but see segregation at all levels. In places where urban capitalism has become a substitute for development, African cities have experienced a division of urban space in which places of deficit and deterioration exist alongside those of social power and extreme wealth (Myers and Murray, 2006). The emergence of gated communities has provided opportunities for land speculation and construction development directed exclusively towards luxury housing and upmarket leisure facilities, thus widening the socio-economic gap (see Chapter 8).

Following the analysis of the informal housing ownership mechanisms in Cairo, the next chapter adopts a bottom-up approach to examine the formal housing ownership mechanisms in the city. Four case studies that represent two types of the formal housing in Cairo – governmental housing and gated communities – have been used to help understanding formal housing.

Chapter 8: The practices of formal shelter

8.1. Introduction

Elkafrawy (2012) has divided formal housing into four categories: state-led housing, private sector housing, co-operative housing, and self-help housing (delivered by private sector). Because the term 'self-build' is used across this study in reference to informal settlements, a clarification is needed when using the term 'self-help'. 'Self-help' is used here when referring to formal housing, because it refers to a government programme in Egypt to assist groups of low-income families in building their own homes themselves or via construction companies they hire.

Part of the formal housing system also includes the buildings in the historic inner-city areas (see Chapter 4 and Appendix B). Although deteriorated structures, they are still labelled formal because they were built before the adoption of the planning regulations (Abdelhalim, 2010). As part of the state-led housing programme in the 1970s, the government launched the new cities' initiative in an attempt to deal with the housing problem for the low- and middle-income population. This programme soon proved unsuccessful, and by the 1990s the direction of these initiatives shifted towards the high-income population, resulting today in luxurious but unsustainable gated communities (see Chapter 5). To further the understanding of Cairo's housing crisis, both types of formal housing are analysed in this Chapter, namely governmental housing programmes and gated communities.

The contemporary cities display the vestiges of the past century – the futuristic gated communities – which under the influence of globalisation have impacted the socio-economic life of cities beyond the aims of governmental plans. Those at the top of the income pyramid choose to leave the city, to join the 'elite club' in the luxurious and unsustainable residential areas, whereas those at the bottom are forced to resort to unconventional practices. It can be said, then, that developers can be

mobilised to cater for particular segments in ways that may exclude the poor, which implies that buildings can be explored in different ways.

Using a bottom-up perspective, this chapter investigates the housing ownership mechanisms in formal areas – governmental housing programmes: Mubarak Youth Programme (MYP) and Future Housing Programme (FHP) and gated communities: Beverly Hills (BH) and Elrehab (ER). Altogether, 86 questionnaires were completed in the governmental housing and 52 in the gated communities' case studies (see Chapter 3). Each area selected for the case study had been visited before commencing the in-depth research in order to confirm its appropriateness in relation to the study. The chapter ends with an evaluation of the housing dynamics in Cairo's formal areas. This chapter is to be read in conjunction with Appendix D, which discusses housing fundamental factors (demographic, housing stock, household incomes, poverty and wealth), and Cairo's housing characteristics.

This chapter provides an account of the informal settlements, governmental housing programmes and gated communities in the Greater Cairo Region. Each area selected for the case study had been visited before commencing the in-depth research in order to confirm its appropriateness in relation to the study. Building on Chapter 7, this chapter reveals the issue of urban segregation, in terms of inequity, which has grown in importance in the light of the negative impacts on urban population with which it is associated. It has been asserted that urban segregation indicators are useful instruments to understand the issue as well as to inform public housing policies (Feitosa *et al*., 2004; 2007). The concept of urban segregation is used to imply the separation between the various social groups in an urban setting, and occurs at different levels in most big cities (Beall, 1997; Reardon and O'Sullivan, 2004; Feitosa *et al*., 2007). Location is the main problem in most circumstances of urban segregation as it inflicts severe restrictions on particular groups, such as the limited access to basic infrastructure and public services, and less job

prospects (Massey and Denton, 1993; Sabatini *et al*., 2001; Farouk, 2016).

The chapter comprises of two main sections – the first investigates formal housing dynamics at macro level and provides a holistic perspective about its mechanisms in Cairo. The second section offers a succinct examination of the chosen areas – governmental housing programmes and gated communities. The chapter ends with an evaluation, considering these two types of housing production in Greater Cairo. It aims to answer the research question, 'How do the New Cities perform in relation to mitigate housing crisis in Cairo?' In order to reinforce the study findings and maximise research reliability, two similar governmental housing programmes and gated communities have been chosen for the purposes of this research.

8.2. Formal housing in Cairo's new cities

As far back as 3,000 years BCE, settlements had outside their walls a suburban area comprising of cluster of dwellings, farms, gardens, and fields. The organic medieval towns, which appear to have been built all at once, can often be revealed to have developed in planned additions. With the industrial revolution, people were able to fulfil their needs for space and enjoy new housing locations (Davis, 1955; Kostof and Castillo, 1999; Wagstaff, 2016). In Egypt, the new town policy was introduced in 1970s as an official declaration that the old populated areas along the Nile valley were becoming unable to house the growing population and desert regions were seen to be the solution (Hegazy and Moustafa, 2013). The aim of the new towns was to attract population, establish an industrial centre outside the valley, redirect the growth, protect agricultural lands, increase regional and national income, and attract private and public investments (Sims, 2012; 2014; Personal interview with O14). The locations for the new cities were based on various factors: location factors (e.g. accessibility, setting features, topography, soil, water supply

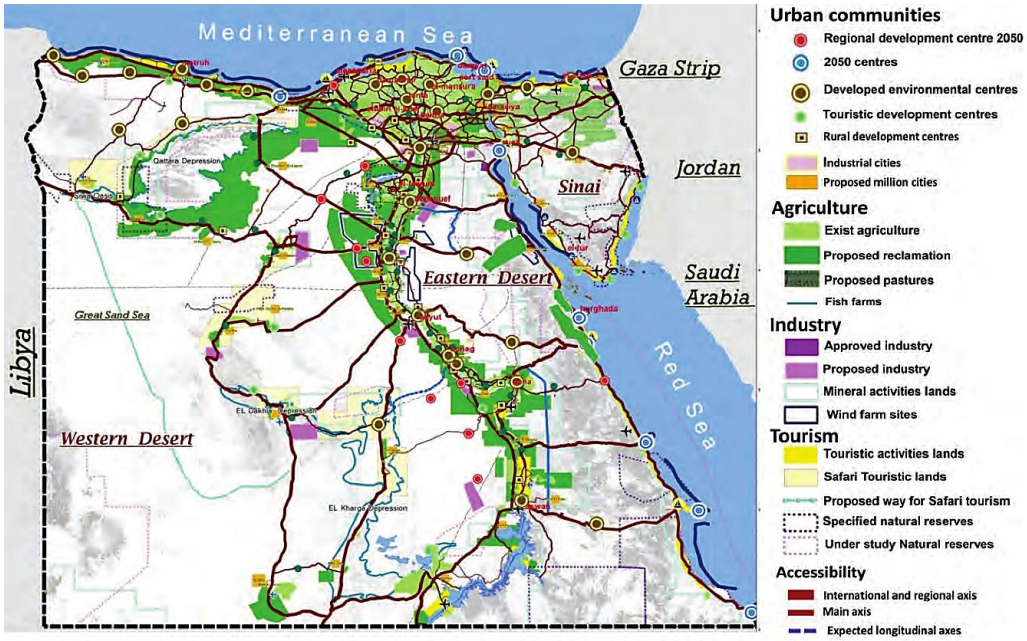
sources, energy availability, relation to existing major cities), demographic concerns, strategic aspects, and economic factors (Abdelkader and Ettouney, 2009). The establishment of new cities required numerous development studies to be undertaken in collaboration with international teams (e.g. French, American, British) due to the technical challenges set by these new projects. For instance, MHUUC contracted a leading Swedish infrastructural consulting firm, Sweco, to design the 10th of Ramadan city (World Bank, 2008b).

The new cities have generally been planned according to four categories: specialised cities (e.g. industrial, land reclamation), twin cities (e.g. to an existing city), satellite (small towns dependent on nearby existing cities), and autonomous cities (Personal interview with O14). Although Nasr City was established in the 1960s under the Naser government's plan to expand Cairo, 10th of Ramadan City, established in the late 1970s by Sadat, was considered the first new city entirely independent from Cairo. This new city was founded with the aim to attract foreign investment and redirect the population outside of Cairo. Due to the foreign capital, several factories were built, resulting in a city with a solid economic foundation (Ali, 2003). While 10th of Ramadan City was still being developed, seven other new town schemes (New Domiat, Elsadat, New Salihia, 6th of October, 15th of May, New Burg Elarab, and tourist resorts on the North coast 'Marina') were planned to contain between 250,000 and 500,000 people each and be economically independent of large cities. These were the first generation of new towns, and became the responsibility of NUCA (see Chapter 6 and Appendix C).

The second generation of new towns was launched in the mid-1980s and comprised nine new cities (Badr, New Bani Suef, New Cairo, Elubor, New Elnoubaria, Elsheikh Zayed, Elshoruk, New Menia, and North Suez Canal). Five were located in the proximity of Greater Cairo in order to attract the surplus population in Cairo. In the mid-1990s, the third generation was established, consisting of seven new towns in the near

desert (New Asiout, New Aswan, New Elfayoum, New Ekhmim, New Suhag, New Thebes, and New Qina) (see Chapter 5). Presently, there are a total of thirty-two new cities, of which seven are under construction (NUCA, 2016c; Personal interviews with O14 and O10). The large number of both established and under construction new cities are part of Egypt's national plan of 2052 that aims to increase the inhabited area from currently 6% to 11% of the national territory (Figures 8.1 and 8.2) (Personal interview with O3; MHUUC, 2012).

Figure 8.1: Egypt's Strategic National Plan of 2052



Based on MHUUC, 2012

Figure 8.2: New cities in Egypt

Based on NUCA, 2016c

Although initially these new towns were developed to provide subsidised low-cost housing units, by the third generation there was an important shift in land management and housing policies towards the rich, and thus the establishment of gated communities (Personal interview with A3; Own fieldwork, 2015). This has brought profits to the State Treasury and MHUUC, helping to restructure the Egyptian economy, and implicitly in accord with the IMF agreement (Sutton and Fahmi, 2001; Fahmi and Sutton, 2008). Various other government entities, especially sovereign ministries (e.g. Ministry of Defence), have contributed to the urban development in the desert by building housing estates, industrial zones, and residential subdivisions (World Bank, 2008b).

Some new cities are relatively more effective than others in attracting investments and inhabitants (World Bank, 2008b). This is the case of the eight new cities around Greater Cairo which have managed to attract

3,688,000 inhabitants (87% of the national total new cities population) by 2014, in comparison to the nine new cities in Upper Egypt in which their total population in 2014 did not exceed 142,000 inhabitants (NUCA, 2016c; UN-Habitat and MHUUC, 2015) (Table 8.1). There are a few reasons why some cities have been more successful than others: the location (in the proximity of Greater Cairo in particular), the demographic and economic power of these cities, and securing local and international investment (Personal interviews with A1 and N3; Own fieldwork, 2015). Affordability, however, has not been a key factor in determining the success of these 8 new cities. This was mostly because the proximity of these cities to Greater Cairo attracted the rich who could afford to buy a property there (Personal interviews with P1 and P3; Own fieldwork, 2015). It is worth knowing that this does not apply to the low-income group, where affordability is a key determinant when acquiring a property. Because of their remote location, limited demographic and economic powers, and received only 5.8% of the new cities' total investment, the rest of the new cities remained unfinished or vacant (Table 8.2).

New cities have absorbed a significant amount of capital, whereas the existing cities, especially Cairo, have received a fraction of this investment (see Chapters 5, 6 and Appendix C). Although, the new Egyptian cities house less than 4.6% of the total population (2015), since they have been established, over LE913 billion have been invested (Tables 8.1 and 8.2) (NUCA, 2016c; UN-habitat and MHUUC, 2015). Despite the unequal capital distribution, the new cities are planned to receive greater funding, particularly with the New Administrative Capital's project 'Capital Cairo' (see Chapter 6). Moreover, the budget allocation policies have been retained (and even increased), and more new cities have been announced, although the population targets for the new cities have not been met. As past experience has shown, these investments in desert new cities have been made in vain, while Cairo is crumbling under the weight of the overcrowded deteriorated buildings.

Table 8.1: Current and target population of new cities in Egypt

New City	Distance from nearest city	City type	Year of establishment	Year of target	Current population	Target population	% of target population	Total built area (km2)	Urban built area (km2)
10th of Ramadan	49.3/Cairo	Independent	1977	2032	430,000	2,300,000	18.70	383.6	323.8
15th of May	35/Cairo	Dependent	1978	2032	200,000	500,000	40.00	49.5	19.1
Elsadat	93/Cairo	Independent	1978	2032	155,000	1,500,000	10.33	489.7	299.5
6th of October	38/Cairo	Dependent	1979	2032	915,000	6,000,000	15.25	482.4	248.9
New Burg Elarab	60/Alexandria	Independent	1980	2032	150,000	750,000	20.00	191.8	121.4
New Salihia	100/Cairo	Agricultural	1982	2017	38,000	80,000	47.50	228.7	8.4
New Domiat	5/Domiat	Independent	1980	2027	171,000	500,000	34.20	26.3	26.3
New Cairo	15/Cairo	Dependent	1997	2032	1,200,000	6,000,000	20.00	283.3	283.3
Elsheikh Zayed	38/Cairo	Dependent	1995	2027	233,000	675,000	34.52	42.1	42.1
Badr	47/Cairo	Dependent	1983	2027	85,000	840,000	10.12	74.9	74.9
Elshoruk	37/Cairo	Dependent	1993	2022	170,000	500,000	34.00	65.2	65.2
Elubor	30/Cairo	Dependent	1986	2017	300,000	600,000	50.00	131.1	64.8
New Elnoubaria	79/Alexandria	Agricultural	1986	2017	22,000	80,000	27.50	7.35	7.35
New Bani Suef	5/Bani Suef	Twin cities	1986	2022	62,000	268,000	23.13	153.4	153.4
New Menia	15/Menia	Twin cities	1986	2050	40,000	638,000	6.27	26.3	99.6
New Asiout	12/Asiout	Twin cities	2000	2027	25,000	750,000	3.33	6,700	28.1
New Thebes	14/Luxor	Twin cities	1995	2027	15,000	238,000	6.30	38.4	38.4
New Suhag	18/Suhag	Twin cities	2000	2052	0	420,000	0	124.6	28.3
New Aswan	12/Aswan	Twin cities	1999	2017	0	70,000	0	90.6	13.4
New Elfayoum	15/Elfayoum	Twin cities	2000	2017	0	100,000	0	54.6	6.8
New Qina	6/Qina	Twin cities	2000	2027	0	130,000	0	97.9	30.8
New Ekhmim	2/Ekhmim	Twin cities	2000	2027	0	120,000	0	141.1	12.3
New Farafra	4/Farafra	Twin cities	2015	NA	0	NA	0	80.9	80.9
New Administrative Capital	45/Cairo	Independent	2015	2022	0	5,000,000	0	700	700
Total					4,211,000	28,059,000	15.01	10,663.75	2,777.05

Based on NUCA, 2016c; UN-Habitat and MHUUC, 2015

Table 8.2: The investments in new cities by sector

New City	Housing units	Service buildings	Infrastructure	Number of factories	Investments (billion LE)					
					housing	Utilities	Services	Industry	Agriculture	Total
10th of Ramadan	157,543	525	W, S, R, E and A	3,049	305	8.7	0.37	28.76	0.11	324.94
15th of May	67,382	235	W, S, R, E and A	222	0.87	1.27	0.27	0.38	0.31	3.1
Elsadat	32,126	273	W, S, R, E, A and G	1,086	0.73	1.86	0.24	10	0.3	13.13
6th of October	527,057	553	W, S, R, E and A	1,970	14.9	10	0.58	30.9	0.72	57.1
New Burg Elarab	53,084	216	W, S, R, E and A	1,240	0.5	2.6	0.18	9.9	0.23	13.41
New Salihia	12,908	59	W, S, R, E and A	372	0.008	0.43	0.88	2.17	0.19	3.68
New Domiat	54,220	324	W, S, R, E and A	607	4	1.79	0.44	0.8	0.04	7.07
New Cairo	69,764	648	W, S, R, E and A	1,621	4.91	22.6	0.71	NA	0.57	28.79
Elsheikh Zayed	73,000	155	W, S, R, E and A	NA	0.74	1.9	0.1	NA	0.07	2.81
Badr	18,997	89	W, S, R, E and A	1,016	1.19	2.16	0.17	1.35	0.05	4.92
Elshoruk	39,000	66	W, S, R, E and A	NA	0.93	1.41	0.12	NA	0.04	2.5
Elubor	91,806	233	W, S, R, E and A	1,583	1.31	3.57	1.1	12.35	0.11	18.44
New Elnoubaria	6,692	74	W, S, R, E and A	131	0.06	0.54	0.11	0.24	0.01	0.96
New Bani Suef	1,224	63	W, S, R, E and A	202	0.77	1.28	0.15	0.68	0.04	2.92
New Menia	35,090	130	W, S, R, E and A	85	1.03	1.44	0.22	0.05	0.04	2.78
New Asiout	29,802	73	W, S, R, E and A	NA	0.63	1.24	0.28	NA	0.02	2.17
New Thebes	3,302	48	W, S, R, E and A	6	0.24	0.57	0.13	NA	NA	0.94
New Suhag	8,342	46	W, S, R, E and A	NA	0.65	0.97	0.12	NA	0.02	1.76
New Aswan	7,100	12	W, S, R, E and A	NA	0.37	0.93	0.08	NA	0.01	1.39
New Elfayoum	180	7	W, S, R, E and A	NA	0.02	0.5	0.05	NA	0.02	0.59
New Qina	1,548	6	W, S, R, E and A	NA	0.41	0.92	0.1	NA	0.01	1.44
New Ekhmim	648	8	W, S, R, E and A	NA	0.09	0.18	0.03	NA	NA	0.3
New Farafra	2,480	29	Under construction	NA	NA	NA	NA	NA	NA	NA
New Administrative Capital	1,100,000	NA	Under construction	NA	NA	NA	NA	NA	NA	400
Total	2,393,295	3,872		13,190	339.36	66.86	6.43	97.58	2.91	913.14

W: Water S: Sanitation R: Roads and communication E: Electricity A: Agriculture G: Gas

Based on NUCA, 2016c

The design principles for the new cities broadly follow the Clarence Perry model (1929) (Personal interview with A4). The idea was to foster the interaction and cohesion of the community by placing services (markets, schools, mosques) on 60% of the area and open spaces on the remaining 40% at the centre of the neighbourhood (Personal interviews with A1 and O14). This creates similarities of some design principles with the traditional city of Fustat (641 A.D.) with the market and religious zone at the core of the neighbourhood (see Chapter 4 and Appendix B). However, its implementation was different (e.g. density, architecture, degree of mixed land use) (Own fieldwork, 2015).

Two main characteristics differentiate new cities from existing cities that affected their attractiveness for people to move there, namely the urban form and single landuse development (Own fieldwork, 2015). The first characteristic, the urban morphology of the new Egyptian cities was designed in accordance with two different forms: the fine paths of Heliopolis, a new design in northern Cairo in 1920, and the shaded streets of the traditional quarters (Abu-Lughod, 1971; Personal interview with A1; Own fieldwork, 2015). Therefore, the design challenge was to blend the modern with the traditional patterns in the new cities. However, the reality has deviated from the initial plan, having today modern urban forms in the new cities more than traditional forms. The second characteristic, mixed-use urban form, has been a traditional Egyptian feature for centuries (see Chapter 4 and Appendix B). Yet, the design of the new cities has disregarded the socio-cultural aspect engrained in Egyptian urban form throughout history, and only considered the single landuse concept (e.g. residential, commercial, medical) (Own fieldwork, 2015). This has resulted in constant changes in the new neighbourhoods or cities produced by the residents who want to shape their environment to their way of living (Plate 8.1) (Abdelazeem, 2016; Hasan, 2016; Eltarawi, 2016; Own fieldwork, 2015). Thus, there is a gap between residents' actual needs and planners' principles.

Plate 8.1: Violations of urban regulations in new cities around Greater Cairo

Based on own fieldwork, 2015

After a brief discussion on the new cities, which contain the two selected types of the formal housing, the next section provides an introduction to each of the case studies.

8.2.1. Governmental housing programmes

"From desert cities to deserted cities" (Zwangsleitner, 2014, p1)
"It is the real, and not the map, whose vestiges subsist here and there, in the deserts which are no longer those of the Empire, but our own. The desert of the real itself"
(Baudrillard, 1981, p10)

The Egyptian government has aimed to secure the right to housing for the low-income groups since the 1952 revolution, going through different phases tied to politico-economic transformations (see Chapter 5). This attempt has materialised into various governmental schemes and programmes based on state subsidies. Mubarak Youth Housing and Future Housing Programmes represent the defining moment for housing provision in Egypt (see Chapters 5 and 6). Before 1996, when the Mubarak Youth Housing programme was launched, Egypt was using five-year plans as the means to deliver the planned number of housing units. Moreover, these governmental programmes replaced the previous basic quality governmental housing units into a

better quality in the hope of increasing the numbers of households relocating there (Personal interview with O3; Sims, 2012). However, the programmes constantly struggled to attract people to relocate to the new desert cities.

Despite the millions of housing units built in the new cities, people still proved resistant to relocation. Some families have accepted the state resettlement offer and obtained the new units but never moved in. At first sight, the new cities seem completely deserted, with only a few families residing in this vast concrete environment (Own fieldwork, 2015). With so many units still empty, one cannot help but wonder what is going wrong with the housing policies and its application in practice. It has been demonstrated that the connection between urban liveability and residential mobility is very strong, indicating an important measure to apprise the success of residential choices (Amerigo and Argones, 1997; Garling and Friman, 2002). Thus, it may be that the low urban liveability (perceived and actual) of these new cities is a key factor underlying their low resident populations.

The location of Mubarak Youth Housing and Future Housing Programmes has been chosen to be the city 6th October because it is the second most successful new town in terms of population – 1.5 million residents in 2016 according to NUCA (2016c). The city was founded almost 40 years ago and is part of the first generation of new cities. These new cities were planned only by Egyptian experts under the guidance of GOPP, and established to attract population from overcrowded Cairo. 6th October is a semi-independent city that aims to provide job opportunities for 80% of its inhabitants (Personal interview with O14).

The 1979 master plan of 6th October encompassed three different urban areas (residential, touristic, and industrial) covering an area of about 11,500 acres. The residential area covered about 5,000 acres comprising 12 districts with between 25,000 to 35,000 inhabitants per district, enclosed by green belts (MHUUC, 1980; Rageh, 2007;

Abdelkader and Ettouney, 2009). Out of the twelve districts only two (Numbers 6 and 10) were planned solely for low-income groups; however with the city's growth, their number increased to six districts. In 2007, 32.2% of the city's total housing units were occupied by low-income households (Tables 8.3 and 8.4) (Personal interview with O14; NUCA, 2015). Originally, the city targeted a socio-economically mixed population of 350,000 by 2000 (MHUUC, 1980). This number was amended in 1998 to 6 million by 2032, although this was not supported by thorough regional studies (Personal interview with A1).

As a result, the residential and services areas were extended, replacing the planned green belts (Personal interview with O14). The industrial and services areas were soon used for private educational institutions and industrial activities, creating job opportunities and encouraging the growth of the new city. In 1995, 6th of October incorporated Elsheikh Zayed (a new satellite town) into its urban area (Rageh, 2007). The city is being developed by two key players – the public and the private sectors. The public sector is represented by the City Development Authority, NUCA, the Housing and Development Bank, Housing Fund, and governmental housing co-operatives. The private sector is represented by real estate investment companies, investors, private contractors and wealthy individuals (see Chapter 5).

Table 8.3: 6th of October original and amended plans

Areas (km^2)	Original plan 1979	Amended plan 1998	Change rate (%)	Situation in 2007	Change rate (%)
Residential net area	11.11	63.67	573.09	106.76	167.68
Residential total area	25.57	72.82	284.57	133.82	183.77

Based on NUCA, 2015

Table 8.4: Housing categories in 6th of October's districts

Area	Number low income of units	Number of middle income units	Number of high income units	Total
District 1	0	9,808	4,030	13,838
District 2	0	13,200	9,790	22,990
District 3	0	10,784	3,920	14,704
District 4	0	696	4,112	4,808
District 5	0	13,808	135	13,943
District 6	28,853	0	0	28,853
District 7	0	6,478	3,272	9,750
District 8	0	5,704	0	5,704
District 9	0	0	0	0
District 10	22,960	0	728	23,688
District 11	0	4,744	653	5,397
District 12	0	8,336	0	8,336
Northern Expansions	41,178	86,768	1,652	129,598
South Neighbourhoods	9,882	264	1,784	11,930
East Expansions	0	0	73,255	73,225
The area bounded by Fayoum and Oases Road	72,252	95,249	11,101	178,602
Southern Oasis Road	14,407	0	4,018	18,425
Touristic Area	0	0	25,182	25,182
Total	189,532	255,839	143,632	589,003
Percentage (%)	32.2	43.4	24.4	100

Based on NUCA, 2015

Mubarak Youth Housing and Future Housing Programmes were built in the late 1990s, located in the same city of 6th of October, targeting low-income groups, and had similar development phases, quality of implementation and post-implementation management. 43 structured questionnaires were completed in each of the governmental programmes (see Chapter 3), and their analyses have been combined to avoid repetition and provide a possible answer to the research question 'How do the New Cities perform in relation to mitigate housing issue crisis in Cairo?'

8.2.2. Gated communities

"We live increasingly in a world of haves and have-nots, of gated communities next to ghettos, of extreme poverty and unbelievable riches. Some enjoy rights that are completely denied to others. Relative inequalities are exploding, and the world's poorest, despite all the advances of globalisation, may even be getting poorer." (Hertz, 2001, p1)

The earliest form of a gated community (or walled city) has its roots as deep as 9000 BCE, in present Palestine – the walled city of Jericho (Kenyon, 2016). However, the gated community developed in a closer

sense to what is being used today during the Roman Empire, when in order to maintain order in the city and protect the rulers, small walled areas were being developed either inside the city or on the outskirts of the urban settlement. The model was later developed during the Middle Ages, when royalty lived in gated enclaves, particularly during times of pestilence and siege. Walled communities were also developed in the fortified Spanish Caribbean towns. Nonetheless, the nineteenth century witnessed the first entirely residential gated community. These early gated communities were reserved mainly for the extremely wealthy. The 1980s saw the expansion of gated communities built in the proximity of golf courses, which were designed for prestige and leisure. Since the 1990s, they have become common in both rich as well as poor countries (Morris, 1994; UN-Habitat, 1996d; Blakely and Snyder, 1999; Almatarneh, 2013).

Initially, early gated communities were directed at high-income groups but nowadays efforts are being made all over the world to shift their orientation towards middle-income groups (Gordon and Keston, 2000). The housing characteristics in gated communities have evolved from rustic weekend housing to modernised constructions in which people moved in permanently (Ballent, 1999 cited in Roitman, 2010). The expansion of gated communities has been influenced by several factors: cultural and economic globalisation, which has led to social urban inequalities through the import and adoption of the western model of life; decreased public provision of basic services, which has led to urban segregation between the poor unable to provide for themselves, and the rich able to create their own solutions; rise of urban hostility and security privatisation; and individuals' aspirations towards a better lifestyle (Sassen, 1991; 1994; Caldeira, 2000; Thuillier, 2005; Manzi and Smith-Bowers, 2006; Bagaeen and Uduku, 2010; 2015; Çavdar, 2016).

One of the defining features of urbanisation in the late 20th century has been the rapid expansion of private urban communities, of which gated communities have been the characteristic development

(Webster, 2001). The relevant literature has accounted for many terms used to describe this phenomenon, such as, enclosed neighbourhoods, private cities, gated enclaves, edge cities, walled community, and city of walls. There are three key types of gated communities: security-zone, prestige, and lifestyle communities, though in practice these communities can be a mixture of these three (Davis, 1992; Blakely and Snyder, 1999; Landman, 2000; Low, 2003; Glasze *et al*., 2006; lees *et al*., 2015; Murray, 2017; Datta, 2017).

The spatial isolation of specific social groups in distinct quarters is one of the most distinctive characteristics of Arab cities (see Chapter 4 and Appendix B). In the context of the Arab city, the quarter is seen as private, protective, and self-governing community (Abu-Lughod, 1987; Raymond, 1994; Glasze and Alkhayyal, 2002). In Egypt, modern prototypes of gated communities were established between 1890 and 1907, with the development of several elite districts, such as, Garden City, Heliopolis, Maadi, and Zamalek as a result of foreign investments in infrastructure (Abu-Lughod, 1971; Elhadidi, 2009). This was the case for the new Khedive Cairo plan developed in the 1870s by Khedive Ismail who got his inspiration from Paris (see Chapter 4 and Appendix B). It should be noted, however, that these elite districts were not walled neighbourhoods, making their open spaces accessible to everyone. In the 1970s, these types of development spread throughout Cairo, its outskirts, and other large Egyptian cities (e.g. Alexandria, and tourist resorts) over affordable vast plots of desert land (Metwally and Abdalla, 2013; Bayat, 2015; Elmasry, 2016).

Institutional structure reacts to economic and political power, as seen with the urban elites in politically powerful urban concentrations who change the pattern of development at the expense of the urban poor (Beier *et al*., 1976). Generally, statist power has benefited the urban elite as in the case of Cairo's land administration. Throughout history, every regime has used such strategies to gain the support of the leading parties at key moments to lead the urban development of the capital Cairo (e.g. Islamic and Khedive Cairo) (see Chapter 4 and

Appendix B). Egyptian government invests in the provision and quality of housing as well as public services for the poor. Under the conditions of rapid growth, the government justifies the emergence of gated communities as a mean to create revenues that will be used for building of subsidised housing units in Cairo (Personal interviews with O10 and O14). To some extent, the new cities seem to summarise the housing problem of Greater Cairo – urban segregation. The most plausible reason for this phenomenon is the nature of these cities – a mixture of contrasting urban elements: unaffordable public housing schemes and luxurious gated communities (see Chapter 5).

The economic liberalisation in the land sector has led to several cases of land alienation, especially from the poor (Gough and Yankson, 2000; Elaraby, 2003; Payne *et al*., 2009; Obeng-Odoom, 2012). The privatisation of urban development, promoted by the neo-liberal economic policies, has contributed to the dominance of private developers building gated communities in Greater Cairo (Kuppinger, 2004). In the 1990s, the government sold vast parcels of desert land (100 km²) to developers, who started building gated communities (e.g. Dreamland in 6th of October City) with the help of key private and public banks such as Construction Housing Bank and Dwellings Finance Organizations (Plate 8.2) (Mitchell, 1999a). In terms of the development of such idealistic communities, investors like Emaar, Sodic and Orascom find their inspiration in far-fetched realities, following Ahmed Baghat's Dreamland example. Indeed, 'Celebration' – a private community built by Walt Disney Corporation in Orlando – inspired his 'Dreamland' gated community located in 6th of October City (Denis, 2011). The design of the Egyptian gated communities has revealed that planners and developers understand what the elite market desires in order to improve their standard of living, and have created a whole advertising industry. Their aim is to sell at high prices, and they have used media to achieve this (Personal interviews with N8, A3, P5 and P11). In the early 2000s, about 320 real estate firms planned the construction of 600,000 luxury apartments and villas in Greater Cairo (Fahmi and Sutton, 2008). However, by 2003 only

60,000 housing units had been built. Nevertheless, more than a hundred privately planned gated communities have been developed to date on the outskirts of Greater Cairo (Almatarneh, 2013). Gated communities were one of the key causative factors of the post-2000 Egyptian financial crisis due to the large investments required for their subsidised development, resulting in a liquidity crisis (Mitchell, 1999a; 2002; Denis, 2011). This has demonstrated that an authoritarian state can promote individualisation in terms of property rights, leading to patronage (see Chapter 6).

Plate 8.2: Dream Land compound in 6th of October

Based on Dreamland Egypt, 2016

The growing concerns of Cairenes over the housing crisis have helped the developers promote the idea of escapism, promising a new life in the satellite cities' oases over the last four decades (Personal interviews with P3 and P11; Own fieldwork, 2015). The main advertising elements portray luxurious villas, vast green public spaces, and golf courses under statements such as "*Live the exclusive life in a safe, green, pollution and noise-free community*" (translated from Arabic - own fieldwork, 2015). The emergence of the

gated communities has raised the profile of landscape architecture, making it an integral part of real estate development (Personal interviews with A3, P6 and P9). By using a westernised architectural style, the big real-estate developers in Cairo (e.g. Emaar Misr, Orascom, SODIC, Talat Moustafa) do not plan in accordance with the arid environment, which, over time, makes their developments unsustainable and challenging to maintain (Personal interview with A5). Thus, gated communities in Cairo represent a utopian view aimed at embodying an extravagant spatial reality.

The gated communities case study aims to investigate one of the study's key research questions 'How do the New Cities perform in relation to mitigate the housing issue in Cairo?'. Thus, 22 structured questionnaires were completed in Beverly Hills and 30 in Elrehab (see Chapter 3) gated communities, and their analyses have been combined to avoid repetition.

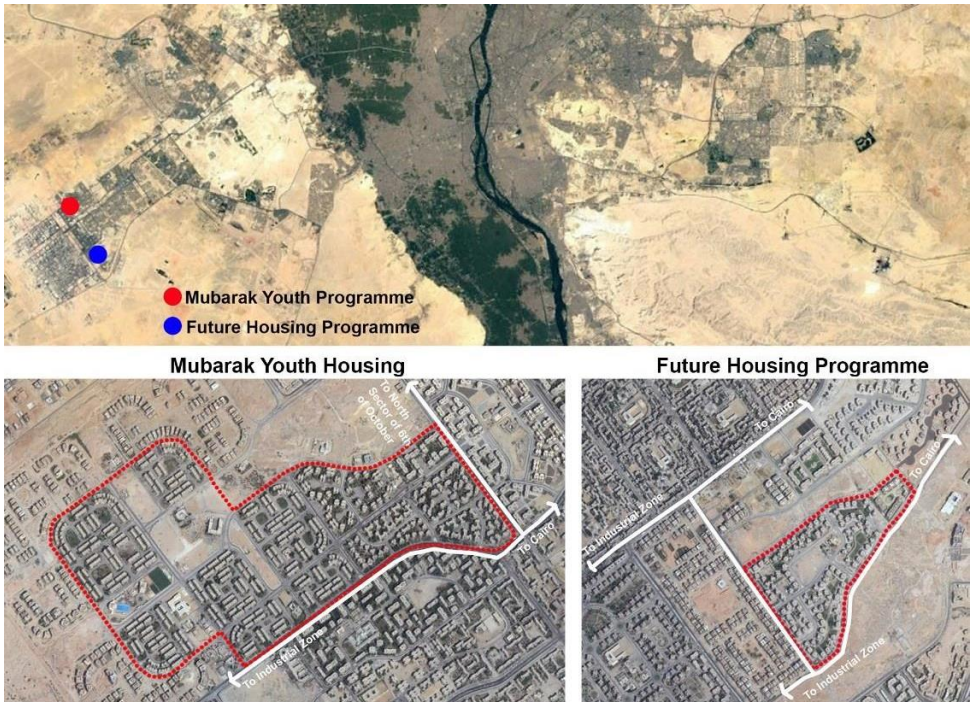
8.3. Case studies

8.3.1. Mubarak Youth Programme and Future Housing Programme

Mubarak Youth Programme (MYP) and Future Housing Programme (FHP), built in 6th of October, projects aimed to provide affordable modern homes for low-income young adults (25-40 years) (Figure 8.3). The housing scheme is designed based on a repetitive style, with a five-floor condominium. For MYP, MHUUC established 'The Executive Agency for the Youth Housing Project' to take lead in the development of 74,433 housing units of 100, 70, 63m^2 built mainly in the new cities around the country (New Urban Communities Authority, 2010; Personal interview with O14) (see Chapter 6). The total cost summed to LE4.0 billion, of which the state paid LE1.5 billion as direct support. Additionally, the state financed another LE1.0 billion as soft loans for beneficiaries. Thus, each beneficiary receives a 40% state-

subsidised housing unit and LE15,000 as a soft loan to be paid over 40 years with 5% interest (Data collected from NUCA, 2015).

Figure 8.3: MYP and FHP site location



Based on Google Maps, 2016

The funding resources for this subsidy were raised mainly from the profits from sales of the plots allocated to high-income residential developments, along with the revenues made from the luxury villas and apartments developed in the new cities and tourist resorts (Personal interview with O14). Moreover, the government also supplied serviced land for these projects (GOPP, 2000). The development of FHP followed a similar approach, building 15,636 units of 63m^2 in nine new cities: 10th of Ramadan, 6th of October, Elsadat, Elubor, New Asuit, New Bani Suef, New Cairo, New Menia, Thebes (Table 8.5). The project started in 1998 and was completed in 2000. The same conditions as for the MYP were applied but the beneficiaries of this scheme received 50% subsidy for their units and a LE10,000 non-refundable grant. In 2001, this governmental housing programme was awarded the first prize by the Council of Arab Ministers of Housing and Reconstruction for the best implemented project (NUCA, 2016d) (see Chapter 5).

Table 8.5: MYB and FHB number of units and specifications

Housing programme	Number of units	Size of units (m^2)	Number of design models	Total cost (State subsidy/ Beneficiaries cost) (LE)	Maximum percentage of soft loans (%)	Location of units
MYP	74,433	70	12	40,000 (15,000/25,000)	60	Elshorok; Elubor; New Cairo; **6th of October**; Elsheikh Zayed; Elsadat; New Domiat; New Bani Suef; New Menia
FHP	15,636	63	2	28,500 (10,000/18,500)	81	10th of Ramadan; Elshorok; Elubor; **6th of October**; New Domiat; New Bani Suef; New Menia; New Asuit; Thebes.

Based on NUCA, 2015

The two main funding sources were NUCA and Future Generation Foundation (FGF), an association established in 1998. All the association's stakeholders donated their contributions to support this programme. The total cost of the FHP was LE1.2 billion, of which LE1.0 billion was collected through FGF (Data collected from NUCA, 2015), representing the epitome of a real collaboration between the public and private sectors (Personal interview with O10). However, this project seemed more like a presidential family business through the President's wife (Susan Mubarak) and son (Gamal Mubarak) advertising the project in the hope of assuming responsibility for the private sector and promoting Gamal for leading the country.

To submit a housing application, the applicant had to pay a deposit of LE1,000 – LE3,500. In 2002, this deposit was increased to LE3,500 for 63m^2 units and LE6,000 for 70m^2 units. The housing allocation process of MYP and FHP was followed using a set of criteria as shown in Figure 8.4 (Data collected from NUCA, 2015). Each criterion was awarded a number of points using computerised databases (Personal interview with O10). However, people are not given possibility to choose the area or the storey, being usually allocated through a public draw. Consequently, extended families are separated in distant areas and this discourage residents to relocate (Own fieldwork, 2015). This is illustrated by a middle-aged female from MYP who stated: "*When my husband and I, and our two children moved to 6th of October, my cousin also applied and qualified, but was*

sent to Eloubor. It would have been better if both of us would live nearby to help each other." (translated from Arabic – own fieldwork, 2015).

Figure 8.4: MYB and FHB criteria to claim a housing unit

	Conditions to be eligible to apply for Mubarak Youth housing and Future Generation Housing
1	Has never owned or benefiting from a rented unit and has never obtained a soft loan.
2	The head of household's 40-45 and to be married
3	Has never obtained a residential land from NUCA or one of co-operative societies
4	The applicant must be of those who are covered by the umbrella of social insurance (Low income category)
5	The applicant has to be working in city or province which contains these units
6	The Applicant has not been sentenced to any breach of the provisions of honour or honesty
7	Paying a deposit of LE1,000 prior submitting the application from to NUCA, refundable if not accepted.

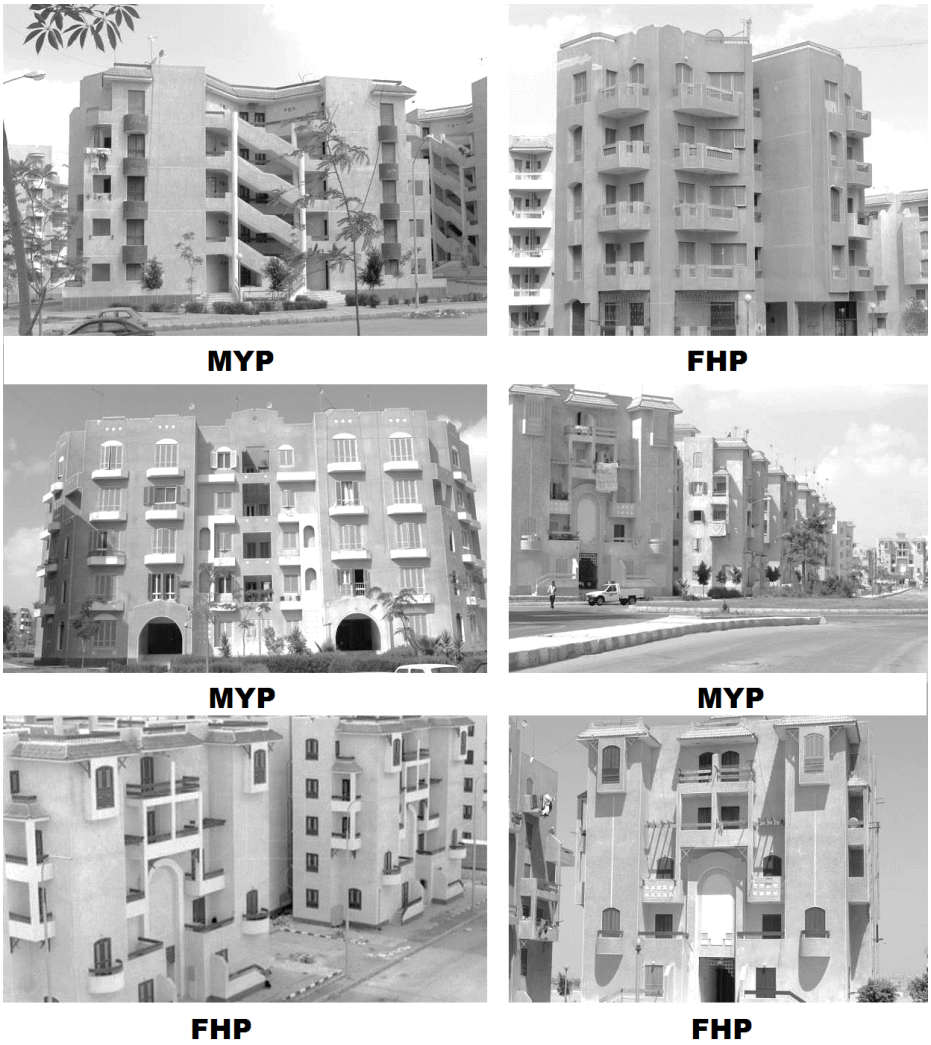
Based on NUCA, 2015

To ensure that the projects benefit from a high quality built environment and local social characteristics design, national architectural firms were used under the monitoring of the MHUUC. As a result, the blocks' façades are a modernised version of the local architectural style, and the apartments on the ground floor can be accessed through a private entrance. The same principle was applied in terms of designing the balconies, which were not placed over one another in order to offer privacy (Plate 8.3). However, these designs had some pitfalls as discussed below.

Considering the commercial activities on ground floors, NUCA disallowed changing its predetermined structure or selling (Personal interview with O14). The contract stipulates that the residents are not allowed to alter their housing units (though some ground floor units were found to have a fault in design by making their main entrances to open into the bedroom), rent or sell for a seven years period of time. Moreover, affected by economic limitations, the government had to decrease the built area, resulting in overcrowded homes as families grew larger (Own fieldwork, 2015). Although initially planned to provide enough space (100m^2) for the average low-income groups, after being reduced in size, the housing units of MYP (70m^2) and FHP (63m^2) turned out to be inappropriate taking into consideration that

45.3% of the Egyptian family consists of 5 members or more (CAPMAS, 2016).

Plate 8.3: MYP and FHP physical features

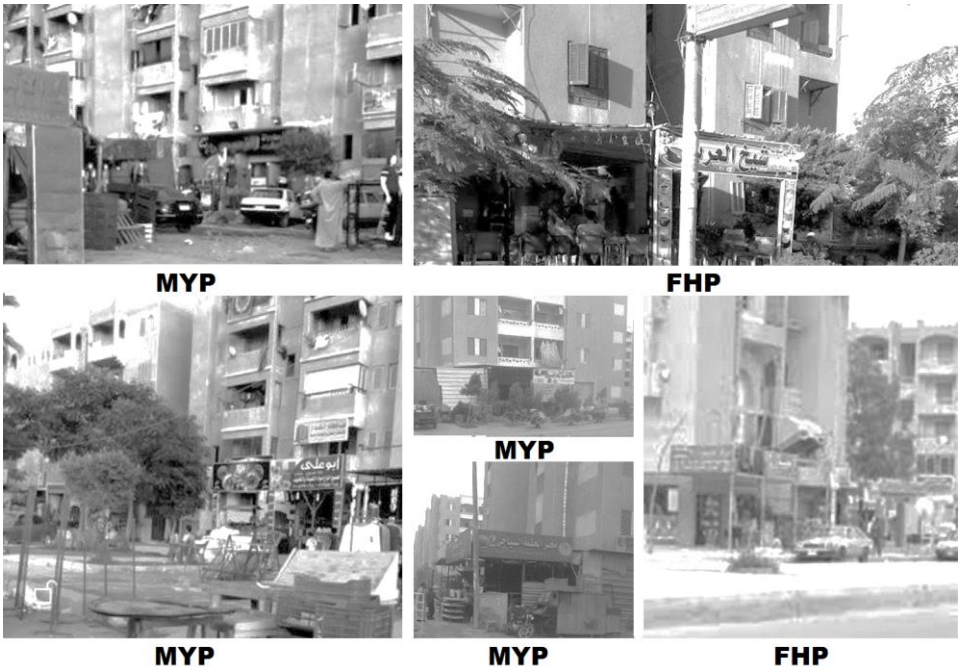


Based on own fieldwork, 2015; NUCA, 2015

The centralisation approach of the Egyptian government has been attributed as the main cause of the socio-economic dissatisfaction that has resulted in community conflicts, vandalism and degradation (Hyland *et al*., 1984; Henderson and Falanga, 1989; Own fieldwork, 2015). Despite the ownership contract conditions, residents still found a way to alter the space to suit their lifestyles. For example, to cope with overcrowding, 31% of the MYP residents and 18% of the FHP residents have altered their properties to meet their family needs (e.g. divided the living room into two bedrooms). A middle-age man living in FHP claimed: "*The flat was too small. Two bedrooms were not*

enough for the six of us. So I built a wall to divide the living room." (translated from Arabic – own fieldwork, 2015). Moreover, many ground floor units were modified for commercial use or to occupy some parts of the wide surrounding roads (Plate 8.4) (Own fieldwork, 2015). Additionally, 57% of the MYP respondents and 49% of the FHPs have claimed that they would like living in a house built using local materials, traditional architecture, and adaptive to climate.

Plate 8.4: MYP and FHP ground floor alterations

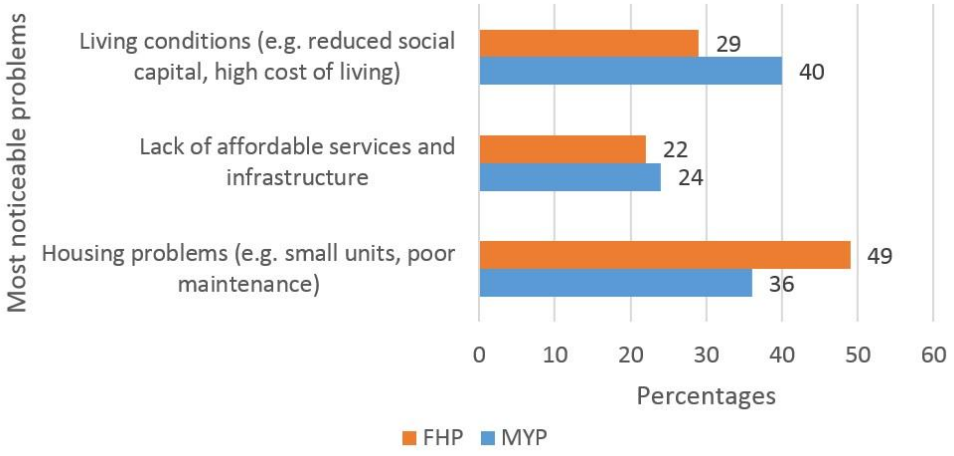


Based on own fieldwork, 2015

A significant feature of both public housing schemes was the low occupation rate of some of the buildings – below 50%, as seen in Table 8.1 (Abouelmaged *et al*., 2013; NUCA, 2016c). Reasons for this low occupancy include lack of public transport, limited job opportunities, lack of affordable services, reduced social capital, and high cost of living in comparison with some parts of Greater Cairo. As per Figure 8.5, the most noticeable problem recorded in FHP was housing issues, with 49% of the respondents stating that the units (63m^2) were too small to accommodate their families. In MYP, living conditions have been reported by 40% of the respondents due to high cost of living (Own fieldwork, 2015). It seems that the projects were designed only for car owners, as the main route linking the districts to

Cairo is mostly accessed by cars or costly private transport (Plate 8.5). Due to low occupancy in some parts of the districts, the commercial activities struggle to keep functioning, but to change their activity, numerous administrative tasks are required.

Figure 8.5: Reasons for low-occupancy in MYP and FHP



Based on own fieldwork, 2015

Plate 8.5: Cairo new cities road patterns and low density

Based on NUCA, 2015

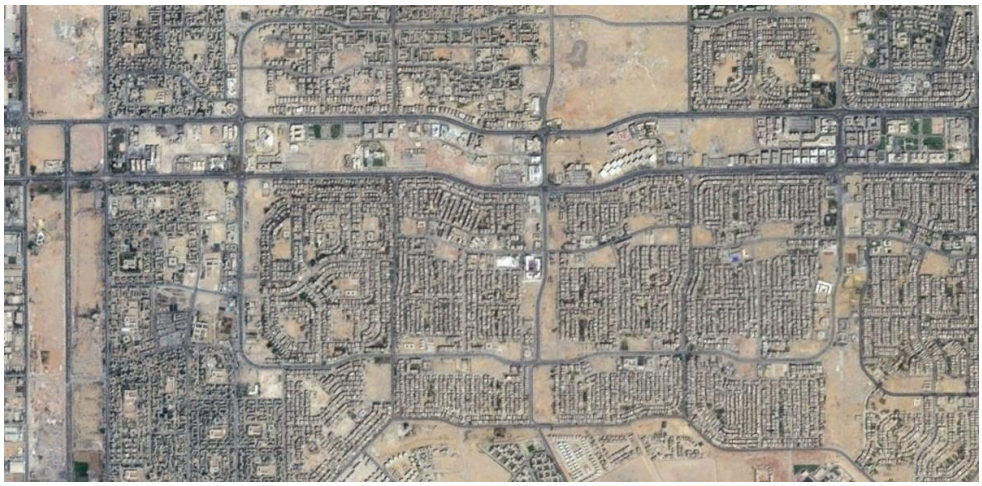
My fieldwork revealed that residents claimed they had to change their way of life after moving to the area. A female respondent who used to be a housewife before leaving Cairo, said she now has to cook hot meals and sell them to the working mothers in the area in order to support her family. 81% of the respondents in MYP and 79% in FHP had stated that their daily expenditure has increased greatly after moving to the new city as a result of commuting expenses and limited affordable markets. It can be said that although the services are available in the city, they are not affordable for low-income families.

As concerns the social capital of the new cities, it can be described as insignificant in comparison to the social relations existing in informal areas. This is evidenced by the case studies, in which only 5% of the respondents in the governmental housing have chosen to live there because of the social network, as opposed to the 71% of those in the informal areas. Other studies have reached the same conclusion that social relations play a significant role in the lifestyle of the residents in Cairo's informal areas (Florin, 2011; Belge and Blaydes, 2014). This is due to the different social classes who, although living in the same building, are unable to build close relations as a result of their different backgrounds and lifestyles.

The random allocation of beneficiaries made it almost impossible for families or friends to relocate together to the new city. This situation is clearly voiced by one middle-age female resident, who claimed "*Can you ask someone you don't know to run errands for you? No, you don't. You also can't make credit arrangements. Here it's hard to find someone to help you*" (translated from Arabic - own fieldwork, 2015). These factors have forced some residents to rent their subsidised units in order to move back to their familiar old Cairo. This was illustrated by a middle-aged man who works as a security guard in 6th October when answering that he is not the owner of the property, but renting.

On a large scale, various development patterns have left a negative impact on MYP and FHP in 6th of October. These include wasteful land allocations which remain unused until the neighbours start investing (Figure 8.6); lack of logical sequencing of development as almost every neighbourhood has work that has not been completed (e.g. empty lots, stalled construction, skeletal subdivisions) (Plate 8.18); illegal building of foundations aimed at 6-8 storeys although the building regulation limit for the area is set at 3 storeys; and the subordination of 6th of October city's budget to NUCA as all land revenues return to NUCA (World Bank, 2008b; Personal interview with O14; Own fieldwork, 2015).

Figure 8.6: 6th of October urban development



Based on Google Maps, 2016

Plate 8.6: 6th of October urban development

Based on own fieldwork, 2015

In conclusion, it is projected that the low-income groups of Cairo's governmental housing programmes will either carry on to transform their built environment in accordance with their cultural and socio-economic needs or consider these houses as future investments and rent or keep them vacant. This calls for a new housing design paradigm aimed at low-income groups based on effective community participation as the governmental housing programmes have yet to achieve the desired outcome. As it stands, these public housing

schemes have had two adverse impacts on the morphology of New as well as Old Cairo. It has increased the informal areas along the ring road linking the new cities and Cairo, and it has promoted urban segregation through the emergence of gated communities by selling vast lands to investors whose aim was to provide for the high-income group (Own fieldwork, 2015).

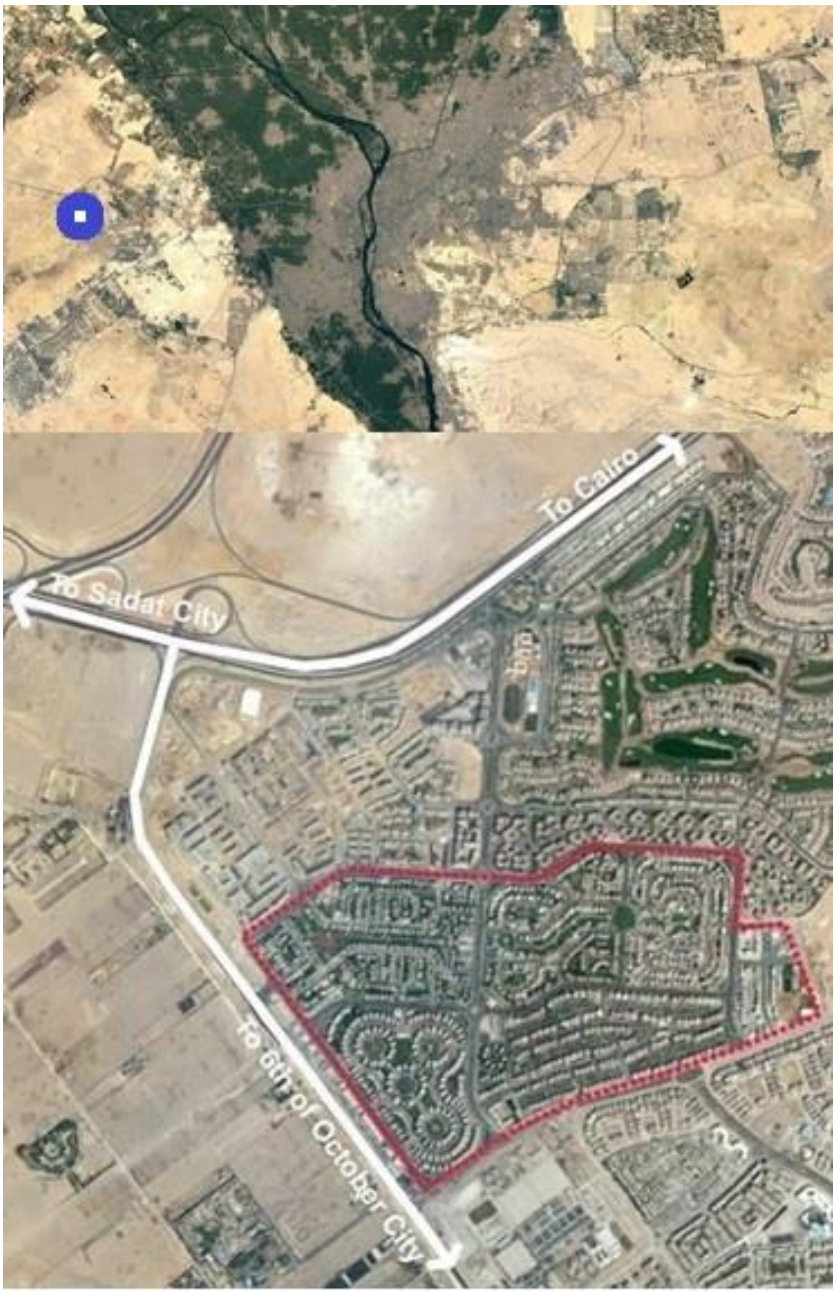
8.3.2. Beverly Hills and Elrehab

Beverly Hills (BH) was developed by SODIC for high-income groups in 2002 and is one of the large-scale residential and commercial complexes in Elsheikh Zayed city, located in the 17th district. Its land area covers about 1.75 km^2, on which over 3,600 apartments, villas and commercial units had been built (Figure 8.7). The compound contains a group of neighbourhoods, each with its own design – housing and urban pattern. The buildings occupy about 25% of the total land, and the maximum height does not exceed four floors. The built area of the villas ranges between 200 and 280m^2, with land plots varying between 500 and 900m^2, and the apartments range between 150 and 220m^2. The compound, with its all-inclusive services (i.e. educational, commercial, health, and leisure) acts like a barrier, isolating its residents from the rest of the city (Own fieldwork, 2015; Beverly Hills Egypt, 2016). Elrehab (ER) is the first Egyptian city built by the private sector (Talaat Mostafa Company), in 1997. It is located in the east of Cairo and planned to house over 200,000 residents on an area of 10 km^2 (Figure 8.8). The compound comprises educational, commercial, medical, leisure, police and fire stations services, mostly owned and administered by self-governing private companies (Own fieldwork, 2015; Alrehab city, 2016).

BH and ER are enclosed within walls with gates, enabling them to reduce their external relations (see Plate 8.7). The morphology of these gated communities turns the new city into a collection of enclaves by breaking the continuity of urban fabric and rejecting public access. They are spatial and temporal filter zones that decide who can

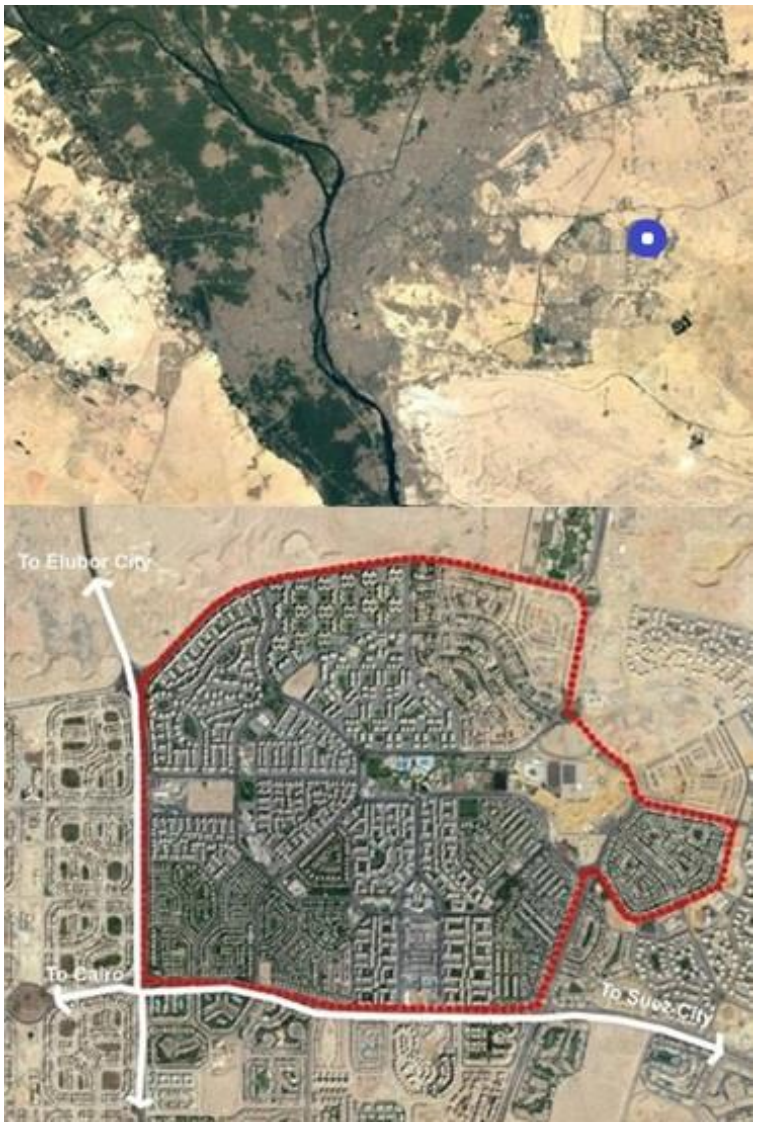
live within their walls, thus creating a ‘fractal city’ (Own fieldwork, 2015; Salingarous, 2014). Jacob (1993) has stated that neighbourhoods work best when they have no beginnings or ends, condemning borders, claiming that neighbourhoods are made by the activities happening on the streets. The government’s view, however, promotes the spread of gated communities and prioritises this over the public housing schemes and informal areas (Personal interviews with O3, O14, P5 and P11).

Figure 8.7: Beverly Hills site location



Based on Google Maps, 2016

Figure 8.8: Elrehab site location



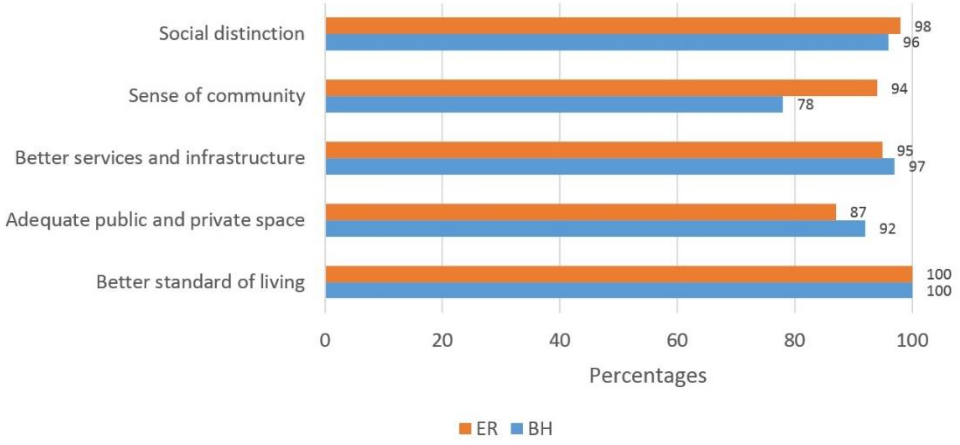
Based on Google Maps, 2016

Plate 8.7: Gated communities gates and surrounding walls

Based on own fieldwork, 2015

When asked why they choose to live in gated communities, the residents of BH and ER cited numerous reasons, such as wishing for an enhanced lifestyle, better services and infrastructure, social distinction, adequate public and private space (Own fieldwork, 2015). During the fieldwork, all the interviewees repeatedly claimed that their main reason for choosing to live in gated communities was a search for a better lifestyle, making reference to larger living space, improved services and green open areas. Both compounds offer such services, making it a dream come true for those who can afford to leave Cairo's poverty, density, noise, and agitation behind (Figure 8.9).

Figure 8.9: Reasons to live in gated communites



Based on own fieldwork, 2015

This is the common view expressed by the inhabitants of both gated communities,

> *"It only takes 30 minutes to commute between BH and Central Cairo, so I prefer to be away from all the hassle in my free time. These days, when every day proves to be very challenging, you need places like this one to recharge yourself before starting another day"*, a high-income male who resides in BH observes (translated from Arabic - own fieldwork, 2015).

Another claim why respondents decide to live in gated communities is social homogeneity, which is supported by similar socio-economic circumstances. The recent trend in Cairo encourages people who

have the same level of education, earn similar monthly wages, have comparable cultural views and share equivalent socio-economic conditions, to live together and isolate themselves from those who do not share these common situations. A middle-age female ER resident who works in finance remarked:

> "*As sad as it is, the growing gap between the various groups has pushed those who can afford it to find a refuge outside Cairo. In theory, a mixed neighbourhood sounds idyllic, but it does not work in the current times. Our very habits vary to the extent that we cannot create a cohesive community.*" (translated from Arabic - own fieldwork, 2015).

The same principle applies to the next factor people claimed as a reason for leaving Cairo. The sense of community represented by shared responsibility and significant interactions is expressed by the residents of BH and ER in similar ways with 94% in ER and 78% in BH. The more the residents have in common, the more they collaborate to create strong relationships in their small community. They make good use of social media sites to enhance communication among the members of the community. For example, the young mothers are part of a group on social media through which they communicate to organise regular community events (i.e. playrooms for their children, cake sales, garden events, etc.). The shared view among residents is expressed by a young mother's contentment regarding the weekly clubs for the children in ER. This demonstrates that people are enjoying the community life in the gated communities. A couple of interviewees claimed that the strong sense of community can only be achieved in places like the gated communities, reduced in area and population, in which most residents share a similar lifestyle.

This view ties in with the next pull factor towards gated communities. Social distinction scored high among the respondents of both compounds – 98% in ER and 96% in BH. In a society in which

hierarchy and rank have played a significant role for thousands of years, social status is a very significant factor shaping the Egyptian community. In a well catered-for community, residents are seen as distinct people with a special status. They are perceived by the inhabitants of the old Cairo as "*different, sophisticated with their westernised lifestyle*", according to a young man who lives in Manshiat Naser (translated from Arabic - own fieldwork 2015). This statement turns into the opposite when the residents of the gated communities are asked how they perceive the inhabitants of Cairo. The general sense one can infer when talking with both sides is that there is an idea of social separation, summarised by the phrase 'us and the others' (Said, 2003).

Numerous ER interviewees have claimed that living in a gated community is enough to access various resources that otherwise would prove challenging. This is the case of a student who stated that living in ER gave her an enhanced social status when joining the university (Own fieldwork, 2015). The basic need for shelter seems to have been transposed up Maslow's hierarchy of needs, becoming an essential part in the search for gaining respect (e.g. esteem need) in Egyptian society. When this idea is applied to other low-income societies, it becomes apparent that the wider the socio-economic gap, the more pronounced the search for self-actualisation becomes. As a result, urban segregation is very well defined in these societies.

A further pull factor that attracts people to live in gated communities is represented by the sense of better security, as part of the better services and infrastructure which shown in the respondents' views, with 95% in ER and 97% in BH. This became more noticeable after the 2011 revolution and the social unrest that followed, and is now a major factor why rich people choose to leave Cairo and move to gated communities (Housing and Building National Research Centre, 2013). The perception that offenders usually come from Cairo's informal areas is shared by many of the inhabitants of BH and ER (Own fieldwork, 2015). The culture of fear is vastly promoted by the

media, which seem to focus on the socio-political negatives of the life in the old city, a middle-age male respondent of BH claimed:

> "*When I reach home after a long day at work, I turn on the TV and all I see is people killing people; detailed stories on all channels describe how people die as a result of social unrest, political conflicts, or war state in the Middle East. Nothing good is shown on TV. Local news are becoming very depressing and you feel like switching to a foreign channel, even if you don't fully understand the language.*" (translated from Arabic - own fieldwork, 2015).

When walking around the ER and BH gated communities, one can see that the residents live in privately-guarded expensive houses, shop in exclusive malls, socialise amongst specific circles, and send their children to private schools and universities, where the main language is English. These neighbourhoods are created in an attempt to compensate for the unfulfilled needs in the old city, thus they are in demand (Plates 8.8 and 8.9) (Own fieldwork, 2015).

Housing units in gated communities in Cairo are overpriced, ranging between LE5,000 and LE80,000 per square metre, considering the 51,200LE per year average household income in Egypt 2015 (see Appendix D). This impacts on the affordability of the neighbouring area, making it extremely difficult for the low- and middle-income groups to buy with the high competition to secure the available land for high-income residents (Own fieldwork, 2015; Personal interviews with P3 and P11). This was the case with the New Administrative Capital when, after it was announced in 2015 (see Chapters 5 and 6), the neighbouring land prices increased by 20%, even before construction had started (Alarab, 2015). It had even increased the housing prices in ER, some 40km away, by 15% (Personal interview with P3; Own fieldwork, 2015), partly as a result of an advertising campaign in which the state has invested large amounts of money.

Plate 8.8: Beverly Hills urban morphology

Based on own fieldwork, 2015

Plate 8.9: Elrehab urban morphology

Based on own fieldwork, 2015

Marketing plays a major role in increasing the profits within the housing market (Personal interview with P3), in which gated communities are presented as images of desirable western lifestyles. This was illustrated in the respondents' views of living in traditional homes built using local materials, in which only 2% in BH and 6% in ER would have accepted such housing arrangements. As a result, gated communities have imported a new urban set of norms and values for the affluent groups. In addition to offering real convenience and scenery, gated communities offer what Cairo no longer has: clean, well-planned, and green environments in close proximity to Cairo's amenities. Beside fulfilling their own goals, these projects,

developed with the government's support, are transforming Cairo's suburbs through the construction of new roads, bridges and other basic infrastructure in a short time (Kuppinger, 2006; Personal interview with O14).

Under the 'Open Door' policy, investors and real-estate developers have become a sort of executive extension of the government (Personal interview with N3) (see Chapter 5). This select group in charge of the construction of gated communities builds on land acquired at low prices without going through rigorous bidding or tendering procedures (Personal interviews with N6, P5 and P12). This is the case with Madinity project (a future gated community in East of Cairo) land that was sold below the market price for LE0.25 per m^2 instead of LE750 to a developer in 2007. However, these prices are not available to low- and middle-income groups who end up paying between 200 and 3000 times more (Personal interview with N8; Own fieldwork, 2015; Abuasi, 2015). This conflicts with what MHUCC and NUCA claim – to encourage the development of gated communities with the aim of financing public housing schemes, when instead of gaining they spend the capital resources for the urban elite (see Chapter 6 and Appendix C).

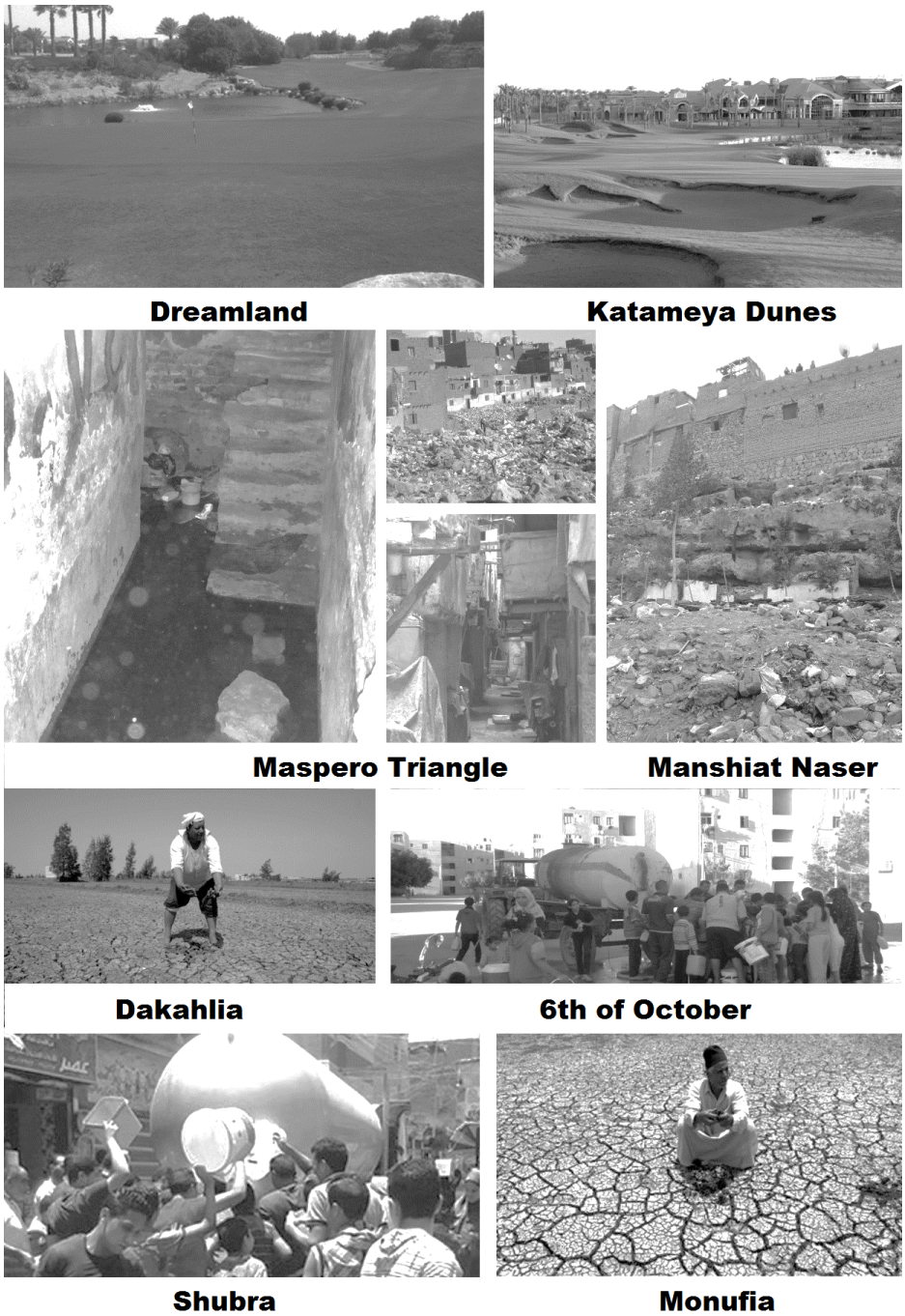
The utopian promises manifested through the gated communities hide critical environmental issues – sustainability in the face of lack of natural resource limits (Personal interviews with N7 and A4). When asked about sustainability measures (e.g. local architecture, energy-saving appliances, no-gas emitting materials), only a few residents of BH (26%) and ER (19%) knew about urban sustainability despite the slogan under which these neighbourhoods are being advertised (Own fieldwork, 2015). The most noticeable problem is the water shortage that has occurred in the residential and agricultural areas of Greater Cairo and other parts of Egypt (Plate 8.10). Nonetheless, gated communities consume large quantities of water to maintain the vast green areas, golf courses, swimming pools, and lakes (Own fieldwork, 2015). Due to the high maintenance of these green areas and golf

courses in gated communities and resorts across Egypt, most land reclamation projects have failed (Personal interview with A4). These lands were later leased to real estate investors who, with the support of bank loans, have invested in gated resorts and golf courses (Kuppinger, 2004).

This happens at the same time as the Nile's water share is being disputed between Egypt and Ethiopia and new dams are being constructed (Pipes, 2016). By constructing these dams, Egypt's share of 66% will be decreased by 20–30% according to Egyptian officials. Furthermore, in 2010 the Egyptian Ministry of Irrigation placed Egypt as the eighth most seriously at-risk country in terms of water shortages (Global Research, 2010; Hussein, 2014; McGrath, 2014). At a national level, Egypt is facing an annual 7 billion cubic metre water deficit. It has been even warned that there is a high risk that by 2025, the country will run out of water (Ezz and Arafat, 2015).

Beside the water shortage, Cairo has also experienced power shortages since 2012, when all over Egypt blackouts had been experienced under the local name of 'Energy Crisis' (Ramadan, 2015). The electricity generation and consumption gap was partly caused by the increased use in the gated communities in which modern architecture uses electricity in excess to lower the temperature in an arid climate and illuminate its numerous light features (Abdelhalim *et al*., 2012; Personal interview with N1; Own fieldwork, 2015).

Plate 8.10: Gated communities water features vs. water shortage in Egypt



Based on own fieldwork, 2015; Huffpostarabi, 2016

Gated communities comprise an important part of the Egyptian housing market. It can be said that at micro-level these neighbourhoods manage to meet the needs of their inhabitants – improved shelter, enhanced safety, a stronger sense of belonging to a community, increased esteem, and achieved self-actualisation. They represent an expensive man-made dreamland for wealthy Egyptians, a natural place taken for granted in different parts of the

world. However, these built environments need to be developed in a sustainable way in order to ensure preservation of resources and equal opportunities for all. As housing represents the majority of any built environment, making sure that we have sustainable housing will lead to a sustainable built environment. Hence, it shows the relationship between appropriate housing delivery and urban sustainability.

8.4. Evaluation and conclusion

Recent urbanisation has introduced concepts like *new cities, gated communities, squatting,* and *marginality* in the context of formal, informal and mixed housing categories. For the purpose of understanding housing ownership mechanisms in Cairo, one needs to go beyond the basic classifications and examine the possibilities and limitations that determine specific housing initiatives. This is the first step towards formulating a framework that will promote real partnership amongst the housing stakeholders. With this goal in mind, the present chapter has investigated housing processes of two forms of formal built environments in Cairo – governmental housing programmes and gated communities.

In the 1970s, the government launched the new cities scheme in an effort to cope with the housing problem for the poor population. The construction of new cities is the state's only solution to providing public housing schemes for the low- and middle-income groups. These units are part of the formal housing market and have had to surpass intricate top-down procedures, from MHUUC to various local government departments with a very limited public participation (see Chapters 5 and 6). As a result, the programme is fragmented and offers inadequate housing solutions to the vulnerable groups of society. Thus, it comes as no surprise to find that these projects have a low occupancy rate. My fieldwork has revealed that the main reason why low-income people do not reside in such units is the level of accessibility and affordability, even if they are subsidised. They are

too far away from work without affordable transport and too expensive even for the middle-income groups and require payments with interest over many years, Cairenes have no choice but to live in poor conditions in informal areas.

Another reason why governmental housing programmes prove unsuccessful is their inflexible nature, as most beneficiaries receive the same housing model regardless of their different needs. This is the result of a fault in the public allocation system, which is based on income and not on the socio-economic characteristics of their beneficiaries. Even when the residents' circumstances change, there is no exchange mechanism to balance the new situations. Hence, people start altering their homes to meet their new needs. Moreover, this randomised housing allocation causes the separation of families who want to live in close proximity (a common trait of Egyptian culture). This process of social dispersion has triggered the decrease in the social capital of a community, making it even more difficult for its residents to cope with the challenges of their daily lives. This situation is exacerbated by the strict standards under which public housing programmes have to function, which in turn impact negatively on the socio-cultural life of the neighbourhoods. This is the case of the predetermined commercial spaces which struggle to function under high-demanding policies unsuited to those they are intended for. Thus, small local businesses fail to uphold the high-standard demands of such policies, causing closures and loss of employment opportunity alongside the loss of goods and services they provided. In a linked chain of events, these closings decrease the number of people who would want to reside in the area, causing a low occupancy rate. As a result, the cost of services and transport increases, having to cater for a limited number of people.

All these factors contribute to the failure of Egyptian public housing programmes. Thus, the large majority of the Cairenes who managed to obtain a unit through the governmental programmes prefer to rent it, or leave it vacant in the hope of future investment. Although public

housing units have been delivered by the state for almost eight decades under various schemes (e.g. Five-Year Plans, Governmental Housing Programmes), it seems as if their failures are being ignored as no post-implementation studies are undertaken by the state. This raises the question why the government continues to construct 'ghost cities' in the middle of the desert, then leaves them to be ruined in silence.

By the 1990s when new cities proved unsuccessful in attracting their targeted population, their purpose has shifted from sheltering low-income groups towards the rich in an attempt to secure rapid profits. The gated communities' case study has scrutinised the options for the urban rich, who can afford to escape from living in informal areas and the ghostly public housing units. The homes in gated communities are every Egyptian's dream house, more so for the high-income groups who wish for an enhanced lifestyle.

Egyptian gated communities offer diverse housing schemes, varying from middle-class to luxurious apartments and villas. These housing developments reveal new designs that reflect market-driven forces instead of standard public-interest norms (Personal interviews with P5 and P8). By adopting foreign names for these developments, such as Beverly Hills, La Fontaine, Galleria Moon Valley, Garden City, Green Hills, Mivida, La Nouva Vista, Royal Hills, Palm Hills, and Paradise, these suburbs promise an ideal vision of an alluringly foreign – western – lifestyle. They are seen as reflections of the growing trend towards globalisation, housing privatisation, and westernisation of urban services. This social exclusivity is usually attained through security facilities, unique architectural style complemented by quality service facilities and leisure amenities. This contrasts sharply with living in a crowded, polluted, deteriorated, what most call 'chaotic', Cairo in which the quality of life is close to bare necessities.

The gated communities authorise the elites to continue their search for oligopolistic liberalisation, while escaping from the tough living

conditions in Cairo. These walled communities have benefitted both from the private sector investment and from governmental support. Since the 1990s, the Egyptian government had offered its full support to golf tourism and its property-related resorts. The global trends in marketing strategies and architectural styles played a key part in the spread of gated communities, as they account for those on the upper scale of income who desire their status be recognised (Personal interview with P3; Own fieldwork, 2015). Golf was promoted in Egypt as part of a suburban lifestyle (Fahmi, 2010), inspired by the American model, although it originates in the British colonialization of Egypt in 1883 with the establishment of Aljazeera Sports Club (Abdelhamid, 2000). In 2015, there were 34,011 golf courses around the world, and each course covers on average 30 hectares, requiring around 18 million gallons of water in order to be kept green throughout the year. In Egypt, there 25 golf courses, out of which 11 are in Cairo (R and A, 2015).

Gated communities are shaped by those who work in Gulf monarchies and the expatriates, who are experiencing a different, globalised model of living (Denis, 2011). Beside the private investors in the development of gated communities, the state also plays a part in the development process of these communities. The largest single developer of Cairo's new areas is the Egyptian army. Military contractors are responsible for developing the suburban enclaves for officers in Cairo's eastern border, as well as the New Administrative Capital (Personal interview with O14; Elmunshawi, 2016) (see Chapter 6). From the elite's perspective, Cairo has become an intricate place where nothing more can be done but to escape (Own fieldwork, 2015).

Gated communities also highlight the widening gap between the rich and the poor in terms of their economy being largely controlled by the private investment markets (Kuppinger, 2005). These neighbourhoods have divided the new cities and promoted socio-economic, political, and cultural segregation. The unrealistic property values in the gated communities have caused a demotion of the social groups on the

property ladder. Many members of the high-income group can barely afford to buy properties in gated communities and prefer to buy land and build their own villas, while middle-income people are now unable to buy land and hence turn to public housing schemes (Ghonimi *et al.,* 2011*;* Shetawy, 2012). The low-income groups cannot afford private flats and very few are able to buy a public flat, while the poor are left to their own devices, as the state does not have real support housing schemes to house them. They end up living in Cairo's overcrowded, unsafe, unplanned, and unserviced slums.

The two formal housing types differ in various ways, but they also have something in common – the residents' lack of knowledge regarding those responsible for the built environment in their city and their impact on its urban morphology (see Chapter 6 and Appendix C). The people's limited information about their local governmental representatives is due to their lack of participation in local authority debates. This has been illustrated by the governmental housing case studies, in which only 4% (MYP) and 9% (FHP) of the respondents respectively stated that they knew the names of their governors (see Appendix E). However, none of the respondents knew their Board of Trustees representatives (see Appendix C – Figures C.15 and C.16). Public participation in the local authority is partly perceived as a 'Pandora's Box' which will unleash the state's wrath, partly as it is corrupted beyond improvement and it is thus pointless to seek its help. On the contrary, this view is not shared by those residing in the gated communities, as all shave claimed that their opinions are taken into consideration by the private administrators of their communities. This happens because the private developers want to keep a good reputation in and of the area, and also because they are the ones who pay the annual maintenance costs. The implication could be that governmental housing programmes are managed using a top-down approach with little or no consideration of the residents' opinions, whereas in gated communities, the rich have to pay to gain a sense of governance and democratic built environment.

Cairo finds itself in a state of instability for both – citizens and the state alike. As a result, the state seems to have abandoned the idea of persevering in finding solutions, and has embarked on a journey of exploration in which new lands are being claimed for urban development. On the grimmer side, the residents are left to survive in a crumbling city, falling more into informality with each day that passes, and those who have the means to desert this constantly-deteriorating place, find refuge in the oasis-like gated communities. The next chapter aims to provide a complete picture of housing ownership mechanisms in Cairo in order to offer some recommendations with the hope that this will raise the awareness of the housing issues in the current politico-economic conditions in Egypt. This would not be possible without identifying the strengths and pitfalls of the Egyptian housing system on different levels, and taking into consideration the various forces that shape the built environment. Although a cliché, no other city represents Egypt more than Cairo, and dealing with Cairo's issues, to some extent, is like dealing with Egypt's issues.

Chapter 9: Conclusions

9.1. Introduction

This chapter revisits the research findings with the intention of providing some inferences and conclusions in relation to the theoretical and physical context set out in the introductory chapter. It provides some suggestions for the housing policy makers, with a particular focus on low- and middle-income housing provision. The chapter comprises three main sections. The first part examines the extent to which the research aims and questions have been achieved and answered throughout the thesis. The second part determines the research contributions, thus establishing whether this study has answered the theoretical questions and managed to fill in any of the theoretical gaps. Although not a key objective in itself, the research does offer recommendations regarding housing policies in Cairo, hoping to inspire new ways for achieving a more effective housing policy. The third part outlines the limitations of this study and provides suggestions for future study.

9.2. Conceptual and empirical contribution

Housing is the very foundation of everyday life, without which it becomes extremely difficult. Housing analysis has the potential to improve the quality of life in every country. There is a high correlation between housing and improved quality of life and health (Diacon *et al*., 2009; Coelho and Stein, 2013; Maqbool *et al*., 2015). An adequate place for a family to live turns out to be the core of self-worth and the trigger for improvement (see Chapter 2). A well-serviced house allows people to benefit from better health, education facilities, and employment opportunities—the ways to improve quality of life and move forward in the society, thus a key goal in the Millennium Development Goals and Sustainable Development Goals (especially Goal 11). At a global level, there is a serious shortage of affordable housing and crises (overcrowding, evictions, foreclosures, and homelessness) are everywhere to be found nowadays. Poverty and segregation, unaffordability and displacement, have become the

features of today's cities. Moreover, these urban issues have become an important feature on the international agenda (e.g. Agenda 21, Millennium Development Goals).

The urgency of dealing with urban issues on a global level is represented by Sustainable Development Goal 11, which aims to make cities inclusive, safe, resilient and sustainable. However, sustainable cities are only a part of sustainable societies (Simon, 2016a). Then, the transformation of society plays a key role in achieving these goals, hence understanding the present matrix of these communities is essential to meet the ultimate goals. The Post-2015 Development Agenda seeks to enhance the ways in which cities work and to enable them to work in ways that maintain the natural systems on which life depends (Parnell, 2016). In response to the informal housing crisis, various international initiatives have been established with the aim of improving the standards of living for residents of informal areas all over the world. Some of these initiatives include the Millennium Development Goals, Agenda 21, the Cities Alliance campaign, and Sustainable Development Goals (SDGs). The SDGs that deal with slums as part of their aims are: 'Goal 6: Ensure access to water and sanitation for all' and 'Goal 11: Make cities inclusive, safe, resilient and sustainable' (UN, 2015b).

To study urban issues, Cairo represents a great example because of its ancient history since the dawn of civilisations, its global rank as one the of largest urban agglomerations, its feature as the intersection between eastern and western ideologies, and its continuous urban struggle in which the current socio-political situation indicates the severe signs of polarisation (see Chapter 4 and Appendix B). Cairo, by far the largest Egyptian city in terms of built area and population, was selected as the study location because of its different forms of housing production, and its world-known housing problem. Various levels and scales that relate to housing were considered with the purpose of understanding the housing crisis in Cairo.

Based on my academic reading as well as my perspective as a former resident of Cairo, most of the previous studies on Cairo's urban issues concentrated on one or two areas (i.e. informal areas, new cities) or only from a few stakeholders' perceptions (i.e. residents, government). One of the influential scholars who has greatly impacted on my conceptual and empirical framework is Abu-Lughod with her book 'Cairo: 1001 years of the city victorious'. This book has provided with the structure of the urban evolution of Cairo chapter in which I scrutinised the physical evolution of Cairo throughout the different phases of political power in the city. Another scholar who has significantly guided my research is David Simon with his book 'Cities, capital and development'. His book has helped me understand the political, socio-economic, and cultural processes that shape the development of African cities and place them within the world economy. This book helped me grasp the distinctive features of 'the African condition', with its colonial legacies, its glaring contrasts between poverty and wealth, and the influences of the world economy in these countries. His analysis of urban modes of production, access to land and shelter, and the character of formal and informal planning activities has been the guiding thread that led this study out of the labyrinthine conceptual and empirical frameworks.

David Sims, with his book 'Understanding Cairo: The logic of a city out of control', represents another great scholar who has influenced my study. This book has forced me to look beyond the general view of Cairo as a chaotic city and brought to light the astonishing means by which the city's inhabitants have built and shaped their own city in spite of an essentially neglectful government. Sims has helped me see Cairo as a rare and beautiful flower because it blooms in adversity. Furthermore, when studying a specific issue, as Said (1993) advises, it is essential to consider the topic in a wider context in order to avoid the distorted knowledge of the topic in discussion or to disassemble the 'reductive formulae'. According to Said, this term refers to the idea that all fields are interconnected and nothing is immune to external influences.

Since the 1950s, urbanisation has been researched by a variety of disciplines seeking to understand the development and its relation to urban governance (Stren and White, 1989; Simon, 1992; Stren, 1994; Rakodi, 1997a; Swilling, 1997; Tostensen *et al*., 2001). In general, within urban studies, cities are regarded mainly as distinct units that can be appreciated irrespective of their historical context and place within global networks, focusing more on the buildings and infrastructure than on the people. However, over the last decades some urban sociologists have focused their research on the residents' perceptions regarding their life in the cities (Simone, 2004). In spite of this, cities are not merely physical locations demarcated by their geographical boundaries, but places where individual and collective needs are being met. Cities represent nodal points in relational networks, enabling resources circulation (Simon, 1992; Myers and Murray, 2006).

If, when analysing a topic, the focus only deepens the understanding of its components – analytical research – the topic will only be understood at an abstract level, failing to grasp the concrete knowledge resulting from the empirical research based on the correlation of the discussed topic with other areas within the academic field. When considering housing mechanisms, for example, we cannot fully articulate them without placing them within their historical, cultural, political and socio-economic contexts (Simon, 1992; McKee *et al*., 2015). Thus, the study of housing crisis in Cairo is an active debate connecting all the stated areas and it cannot be studied without the city's dynamics.

9.2.1. Appropriate housing delivery and urban sustainability

The concept of sustainable cities is interrelated with environment and economy and safeguarding of natural resources, which leads to an adequate quality of life. Thus, a sustainable city can be defined as an urban area that provides for the basic needs of its inhabitants in terms

of infrastructure public services, housing, transport, medical care, education, employment, good governance. Sustainable cities should aim to meet the needs of all their residents without any discrimination (Simon, 2016a). In relation to housing, sustainable cities aim to promote access to safe and affordable housing, and upgrade slums (UN-Habitat, 2016a). It also encourages investment in public transport, providing accessible green public spaces and developing a participatory and inclusive urban planning and management.

The concept of housing is in need of re-evaluation so as to effectively address the issues of slums, the urban segregation, economic and human development, and climate change. Housing plays a fundamental role in achieving sustainable development. ‘Sustainable housing for sustainable cities’ provides the key considerations behind the notion of sustainable housing and offers a comprehensive framework for planning sustainable housing policies (UN-Habitat, 2012b). This study encourages a more holistic approach, one that understands the various functions of housing as both physical and socio-cultural system, seeking to improve the environmental, social, cultural, and economic elements of housing sustainability to ensure thriving neighbourhoods and equitable cities.

Sustainable housing incorporates economic, political, social, and technical issues. Physical indicators are insufficient in assessing the overall quality of housing, thus perceptions of sustainable housing have transcended the individual dwellings to issues of community. Few community initiatives and government actions have started to address the security of buildings, of tenure, and of asset value in Cairo neighbourhoods. However, constrained by scarce free land within the city and a market that caters mainly for the upper income scale, new policies are needed for making housing and cities smart and sustainable. As ‘sustainability’ is part of the thesis’ title, I considered that by understanding the housing mechanism it would promote the development of adequate policies, which in turn would pave the way

for sustainable development, as I personally consider sustainability as not a destination, but a continuous journey.

9.2.2. Cairo and the Arab world

Almost 83% of the world's population now live in developing countries (Population Reference Bureau, 2017). As a result, new challenges arise, for which the standard knowledge about urban planning and management is unsuitable. A key challenge is represented by the growth of informal housing, particularly in Africa, Asia and South America. In 2015, 12.5% of the world population resided in slums (UN-Habitat, 2016c). Informal urban development, also called unplanned, extra-legal, or non-authorized housing, can be defined as processes that infringe urban land use policies, subdivision procedures and/or building permit rules. Considerable literature has tried to describe and generalise the phenomenon of slum creation. However, making global generalisations has often proved impractical considering the complexity of informal housing. Moreover, reality varies significantly from region to region and country to country.

In the last fifty years, informal areas have become a significant part of many Arab cities. When examining the nature of informality in these cities, one notices the unsuccessful efforts of Arab governments. These efforts had involved applying western-inspired policies, financing and models of planning. Although the housing solutions promoted by Arab governments had been delivered on a large scale, they proved ineffective. This has been most evident in Egyptian cities, followed by cities in Syria, Yemen, and Morocco. The situation has uncovered the fight for political legitimacy, in which modernist approaches have been used by the Arab regimes to gain power through the support of the high-income groups.

In some of the non-oil-dependent Arab countries (e.g. Egypt, Yemen), informal urban areas house at least half their population. These settlements have formed at least since the 1950s, on the urban borders or around newly-established towns. Thus, they have attracted

lower-income families escaping poor housing conditions in the city centres, and also rural migrants. Most of these informal settlements have basic infrastructure and services, though standards and coverage are inadequate compared to the formal parts of cities. A key characteristic of these areas is their gradual development over time, as additional floors are built, and as plots of land continue to be subdivided. However, this information comes mostly from small foreign studies, not from national or municipal authorities (e.g. GIZ, 2009a; b; Personal experience at the UN-Habitat Egypt branch in Cairo). Consequently, there is a knowledge gap in the Arab literature regarding informal housing.

Informal urban development is most noticeable in Egypt compared to any other Arab country. In 2008, World Bank mapping studies showed that informal areas accounted for roughly a third of the built-up area, housing almost 63% of Greater Cairo's population at the time of the Census of 2006 (Sims, 2012). Regarding informal housing in other Egyptian cities, there is not much information available, but it has been estimated that almost 41% of Alexandria's residents (total population 4.5 million) live in informal areas. This informal development has formed on agricultural land sold by the owners (Soliman, 2007). In contrast, towns of the Suez Canal Zone house only about 25% of the population informally. This is because the land belongs to the government and is used for governmental housing programmes (Sims, 2000).

In Syria, informal areas are also common, with 40% of Aleppo's residents (2.4 million inhabitants in 2004) living in informal housing mainly on the southern and northern borders (GIZ, 2009b) before the recent very destructive conflict. In Greater Damascus, 30% of the urban population (4.1 million in 2005) had been estimated to live in informal areas (Lena, 2012; Clerc, 2014). As with Cairo's informal development investigated in this study, informal areas in Syria have developed as a result of informal land subdivisions and use of private contractors to bypass public agencies regulations (Clerc, 2014). In

Yemen, there are fewer urban housing policies to be applied, thus there is a fine line between formal and informal development. Most regulations refer to land uses and street alignments. In 2008, a Cities Alliance study in Sanaa found that 21% of the city population (2.4 million inhabitants) live in informal areas. In Alhodeidah, 50% of the residents (900,000 inhabitants) living in informal areas, although all peripheral areas are state-controlled desert lands (Elshorbai and Sims, 2008). This study also found that Manshiat Naser has been formed on state-owned desert land. In Morocco, 8% of the urban residents live in informal areas, on the urban peripheries (World Bank, 2017). In 2003, the Moroccan government targeted the relocation of Casablanca's informal areas inhabitants into new satellite cities (Alonso and Garcia-Rey, 2007). As stated in this study, that was the case of Egypt's new towns policies launched in 1970s, targeting low-income population and to mitigate informal areas' impact.

Nonetheless, informal settlements in Arab countries offer affordable housing to low- and middle-income groups (UN-Habitat, 2013b). Moreover, the informal housing stock in Arab countries, with a few exceptions, consists of multi-storey blocks that are well-built. Compared to the slums typically found in Africa, Asia, and in Latin America, slums in Arab countries are of a higher-built quality. Those that are of a precarious quality have started as squatting on peripheral lands, where land tenure is not secure (African Development Bank, 2012; Racelma, 2012; Cities Alliance, 2008; World Bank, 2008a; GIZ, 2009b). Usually, the Arabs purchase private agricultural land to secure their land tenure, as seen in this study when Maspero Triangle was analysed.

Informal housing in Arab cities fosters workplaces within residential buildings, thus creating work opportunities and generating capital for the poor. This phenomenon was evident in the case of Manshiat Naser, where diverse work opportunities like recycling, vehicle repair shops, wholesale trade help the residents make a living. In time, these commercial services offer sustainable means of living, which in turn

will promote the growth of the informal area. Despite their advantages, it is important to acknowledge disadvantages that expansion of the informal areas brings. The public interest suffers as a result of lack of control, particularly in terms of acceptable street widths, land for schools, and open spaces and parks. Besides, an informal area tends to become overbuilt, resulting in insufficient air and light in the housing units. Over time, these areas may become displeasing in their appearance, upsetting those who have to live nearby.

Most Arab countries such as Egypt, Morocco, and Syria have governmental housing programmes that should offer affordable housing for low-income households. However, these national programmes have yet to meet the housing demand. Furthermore, the extremely poor rarely qualify for these units due to bureaucratic, inappropriate and arbitrary selection of beneficiaries (UN-Habitat, 2012c). Some Arab countries offered heavily subsidised housing units, making them affordable for low- and middle-income groups (Ernst and Young, 2013; Rashad, 2014). However, they required significant proportions of the respective national budgets. The study shows that governmental housing programmes in Cairo were unsuccessful for the low-income groups, even though the housing units were subsidised because they disregarded the socio-economic needs of the targeted beneficiaries.

In Arab countries, social housing policies did not have the desired effect to prevent the growth of informal urban development (Elbatran and Arandel, 1998). What is more, foreign policy standards and costly documentation required for acquiring building permits have encouraged informal housing. The study has provided a detailed account (see Chapter 6) of the procedures involved in building and registering the property officially. Moreover, low-income families have perceived these procedures as imposed by the state and without any real justification. The study concludes that there is a clear gulf between housing policy and reality in the Arab world.

9.3. Revisiting research questions

In view of the nature and objectives of this research, an attempt was made to analyse the relationships between the framework of housing policies and its implementation in practice. The key objective of this study was to investigate the nature of housing in Cairo and gain a deeper understanding of housing process in Cairo in order to create a holistic picture of housing ownership mechanisms. The second objective was to offer recommendations that will help narrow the gap between existing urban policies and their application in reality with the goal of developing a sustainable city. Urban sustainability does not appear only as policy recommendations, but has also been explored conceptually and in relation to past and current practice in Greater Cairo (see Chapters 4, 7 and 8).

The hope is that this study may provide an analysis of Egyptian housing policy, and becomes part of the research package that will inform the authorities and other stakeholders in order to plan better built environments. This study reveals that urban planners in Cairo have ignored relevant housing principles and argues that radical changes are needed in order to address the rapid urban growth and its associated issues (see Chapters 5 and 8). The research postulates that all housing stakeholders are active contributors to housing production and they should all be involved in the decision-making process. To demonstrate this, the appropriate literature on housing, housing policy, housing management, housing production; and the implementation of such policies have been reviewed.

The literature review raised the research questions ‘How do housing policies regulate housing mechanisms in Cairo?’ and ‘What are the differences between housing policies and reality?’ According to Lund (2011), housing policies encompass state intervention processes that shape the housing mechanisms. But to understand current housing policies, it is required to analyse its development throughout history (Balchin and Rhoden, 2002). Thus, the research aimed to understand

the operating framework for housing ownership provision, to examine the socio-political and economic organisations, and scrutinise the roles and associations of all stakeholders with the state and its regulations (Simon, 1993; Mathy, 1992; Jones and Ward, 1994; Keivani and Werna, 2001b; UN-Habitat, 2012a). As illustrated, housing policies in Egypt were the manifestation of the political direction since 1952 until present day, during which various housing policies have been implemented in Cairo (see Chapter 5).

9.3.1. How do housing policies regulate housing ownership mechanisms?

Even today there is no official urban policy in Egypt but a series of national sectoral policies which are generally based on the President's and his government's ideology, and the main strategy for desert development in which new towns are planned (see Chapter 5). In Cairo, the land policies and regulations have created a confusing, difficult, and inefficient mixture of co-existing land tenure systems (see Chapter 6). There is no coherent national land strategy to manage public land in Cairo, nor clearly formulated policy and practices for the valuation and disposition of public lands. This, in return, fractured the governmental bodies, causing every ministry to produce its own regional policies (see Chapter 6 and Appendix C). Moreover, Greater Cairo has been divided into three governorates – Cairo, Giza and Qalubia, in which policies are implemented differently.

The study shows that the contemporary urban planning of Cairo has been guided by three principles: demarcating the borders of the city; preserving Cairo's centrality and making its downtown more accessible; and establishing new cities in the suburbs of Cairo in the hope of coping with the urban population growth. The state aims to solve the urban crisis by trying to tame the desert and develop futuristic grandiose schemes based on imported western ideas and using outdated and static ways of planning in the form of master plans (see Chapters 6 and 8).

The official housing policies situation in Cairo is complex, centralised and ineffective due to overlapping and unproductive jurisdictions. There are numerous national and local agencies dealing with housing and land but there is limited collaboration between them or within the same organisation itself. The system suffers from overstaffing, which leads to low salaries, a high pension burden on the public pocket and high levels of corruption. Local government in Cairo cannot accomplish its responsibilities efficiently owing to over-centralisation, lack of financial autonomy and shortage of qualified staff. Budget deficiencies combined with the political nature of the system force the orientation towards immediate issues while ignoring long-term needs. The absence of overall strategic insight, lack of collaboration, transparency and participation have resulted in constant changes to housing policies (see Chapter 6 and Appendix C).

Different and successive Egyptian housing policies have piled up as their implementation did not replace the previous polices. This has led to a confusing situation in which many policies are functioning at the same time. The inconsistency, sometime contradiction, generated by the ever-changing legislation of the competing agencies creates a chaotic apparatus unable to cope with contemporary society. These policies have been formulated and implemented based on a top-down approach, with little or no consideration for all stakeholders, thus aggravating the housing issue. Most of these policies are promulgated by decree rather than parliamentary approval.

Real participation encounters many challenges in Cairo within a greatly centralised administrative system in which the political environment of bureaucratic and security measures has hardly any tolerance for real opposition (see Chapters 5 and 6). The allocation of official executive positions is through an appointment mechanism that prevents staff's ambitions by electing efficient and suitable leaders. Increasing the contentment of political superiors has nurtured the establishment of patronage, resulting in diminished people's power in choosing and challenging these officials through open discussions

(see Chapter 6 and Appendix C). Thus, when the officials develop short-term plans that cause budget losses for minimal area improvements (e.g. painting road kerbs), no-one questions it. This lack of public interest in how money in the local area has culminated in a monopolised housing production system (e.g. land, construction materials, infrastructure) by the business elites, which in time has produced policies favouring the rich.

The combination of centralised power and unsuitable assigned officials has created vague policies that nurtured bureaucracy, difficulty, costly and time-consuming activities in almost every process within the housing mechanism (e.g. land subdivision, land and property registration, building licence, financial support).

The Egyptian housing policies are not planned with a wealth of information or based on evidence, but designed to emphasise the state's authority. As demonstrated in previous chapters, these policies have not been created to reflect and meet people's needs, as they were formulated in isolation from the historical, socio-cultural, environmental, and economic factors. Planning is seen and practised as a merely technical exercise, in which the various interests of stakeholders are not realistically evaluated, nor does it provide a correct assessment of costs (see Chapters 5, 6 and Appendix C). The key implication is that formulation and implementation of the Egyptian housing policies widen the gap between the reality of people's lives and planners' perceptions, thus furthering the housing crisis and the deterioration of the built environment by not being able to manage and monitor the city's rapid growth.

9.3.2. Why do most Cairenes reside in informal areas?

Despite governments' and development agencies' apparent attempts over the last decades to house the ever-growing population, cities in poor countries continue to struggle meeting their residents' needs. The growing problem of slums is regarded as being of global concern,

where informal housing provides shelter to millions of urban poor who are unable to access formal adequate housing (Simone, 2004; Huchzermeyer, 2011; Simon, 2011; UN-Habitat, 2015a; 2016a).

Portraits of Cairo are dominated by the termite mound-like buildings; the case studies of the informal areas revealed people's flexibility, ingenuity and adaptation in the face of severe socio-economic conditions. The quantitative inputs of the informal sector have contributed to the balancing act between population growth and increased housing demand. The informal housing helps meeting the need and demand for affordable housing for the low-income groups. However, informal areas built on public lands face a constant threat of people being evicted by the government. The state's response to squatting has usually ranged among disregarding, demolishing, displacing, legalising or upgrading such areas. Thus, people end up building temporary low-quality shelters which put their families at risk.

Under the current politico-economic crisis, informal areas are affordable alternatives, located in key areas where residents can easily find work opportunities. The building process is fast and provides the flexibility that low-income groups need in order to strive in the face of adversity. It relies on social capital, which helps with finance through informal saving associations; low-priced workers represented by family members and neighbours; community leaders (i.e. local sheikhs, priests, elderly) and local solicitors that provide a sense of security of transactions (see Chapter 7).

Informal areas had developed steadily over a long period of time, and it is now easy to overlook the struggles the first generation had confronted in order to settle there. Building formally in Egypt has also proved a lengthy and costly process due to the numerous building codes (e.g. minimum plot sizes, street width, building height), and the unmanageable procedures needed in order to acquire the building permit. As seen in chapters 6 and 7, this tedious process has

discouraged many of the urban low- and middle-income groups from trying to build formal housing.

The extensive expansion of Cairo's illegal housing is associated with three main factors: the bureaucratic and costly process of building formally; the state's inability to deal with illegal building; and the affordability, accessibility, and social cohesion residents claim that informal housing offers. That was evidenced in the Maspero Triangle case study, with 58% of the respondents stating that affordability and accessibility are the main reasons why they live there. Some extrinsic reasons why people reside in informal housing have accounted for the ineffective housing policy, inadequate urban management, high population growth rates, rural migration and profits from illegal land subdivision. That explains why 63% of Cairenes reside in informal areas (Sims, 2012), which implies the difficulty the state is facing in managing the city that is expanding in informality.

9.3.3. How do the New Cities perform in relation to mitigate housing crisis?

The housing crisis in Greater Cairo is a paradox when one considers the large number of vacant dwellings. The shortage of affordable housing is reflected by overcrowded dwellings, informal settlements, and illegal land encroachment (UN-Habitat, 2009a). The public housing supply is well short compared with the high demand. The private and often illegal provision, alongside squatter and informal solutions have, in part, met the people's need for shelter. However, the Egyptian government has aimed to redirect the urban growth to formality. In 1977, the New Towns Policy was introduced by the state to cope with the increasing housing demands and to provide affordable housing to low and middle-income families. The new cities were established to offer subsidised housing units for low-income groups, and delivered via different schemes: five-year plans and governmental housing programmes. Mubarak Youth Housing and Future Housing Programme were the first governmental housing programmes.

These governmental housing programmes soon proved unsuccessful for many reasons (see Chapters 5 and 8). First, it is known that location is of vital significance, particularly for the low-income population. However, their long distance from work opportunities creates a severe problem in terms of transport means and cost. In the absence of affordable transport to service these areas, commuting becomes a real challenge. As documented in the case studies, the remote public housing units tend to remain unoccupied. Second, the social capital in the new cities is very low as it minimises the possibility of extended families or friends to relocate together, following a rigid and strict system of eligibility criteria; moreover, its allocation system is done randomly. Third, the design of the new cities has disregarded the socio-cultural aspects ingrained in the Egyptian built environment throughout history (e.g. single-use urban form, one design type of units fits all, low-density urban form), and only a western morphology based on Clarence Perry's model (Perry, 1929). Thus, there is a gap between residents' actual needs and planners' principles. Fourth, the inconsistency of development across the new cities is illustrated by the patchily developed areas. The limited resources spread across many new cities and governmental schemes will barely make an impact on the existing urban agglomeration.

With the beginning of 1990s, the Egyptian economic was restructured under the IMF structural adjustment agreement, and private investment in housing has prevailed over public investment (Fahmi and Sutton, 2008; Fahmi, 2008). At the same time, the governmental housing programmes proved unsuccessful in consequence of the privatisation of urban development, economy globalisation, and social urban inequalities. By mid-1990s, the direction of these initiatives shifted towards the high-income population resulting today in luxurious unsustainable gated communities that resemble the western model of life sought by the rich. This was the beginning of the now highly segregated areas within Greater Cairo because of intensive housing development by the private sector on cheaply-purchased public lands

(see Chapter 8). In other words, the rich were able to create their own solutions for an enhanced lifestyle.

The research case studies have shown that gated communities authorise the elites to continue their search for better lifestyles, while escaping from the harsh living in Cairo (see Chapter 8). The spread of gated communities over vast affordable plots of desert land throughout Cairo has revealed that planners and developers plan for the urban elite, and have created a whole advertising industry to target this group. The new housing design in the walled neighbourhoods reflect market-driven forces (e.g. globalisation, housing privatisation, westernisation urban services, utopian urban morphology) above standard public interests. It is important to remember that gated communities have benefitted not only from private sector investment but also from the governmental support. The emergence of gated communities has provided opportunities for land speculation and construction development directed exclusively towards luxury housing and upmarket leisure facilities, thus further widening the socio-economic gap. But, as the city expands, it fragments in both institutional and socio-spatial terms and becomes a city of a thousand districts with a disjointed urban morphology.

Although the Egyptian government has invested a large portion of the country's capital (Table 8.2), the new cities around Cairo need to be re-evaluated. Beside the fact that they have proved inefficient, attracting only 15% of their target populations (Table 8.1), they also mainly benefit the higher-income groups. Almost forty years since their establishment, the combined population of all these satellite cities barely exceeds 4 million inhabitants (Table 8.1). When compared to around 12 million people who reside in Cairo's informal areas (Sims, 2012), it can be said that the New Cities do not help to mitigate the megacity's housing crisis. It indicates that Egypt is concerned with increasing the building portfolio, showcasing the high number of new cities, instead of improving the existing cities, and creating fully-functional, sustainable, and resilient few cities.

9.3.4. What are the differences between housing policies and reality?

Egyptian housing policies have been viewed as detached, in which the local culture that developed in relation to the historical, geographical, and socio-economic context has not been considered. Governmental housing programmes focused more on the physical aspect, paying little if any attention to socio-economic development and community participation. The top-down approach shows little regard for the residents' preferences and does not seek their participation (see Chapters 5 and 6), and this results in planning that does not meet users' housing needs. This was evidenced in the respondents' previous experience of participation. None of the residents in both governmental housing programmes had participated in the decision-making to improve their local area. In terms of the public participation in the informal areas, only 24% in Manshiat Naser and 35% in Maspero Triangle had previous experience with public participation (see Appendix E). Thus, the housing policies are seen as inappropriate by many citizens.

Despite the large investments (Table 8.2) in housing production over the last seventy years, the housing crisis has not been solved. The ineffective housing policy has impacted on the demand for affordable housing through exploiting housing laws (i.e. rent control) and erroneous actions of users (i.e. leaving units vacant) (see Chapter 5). The inappropriate implementation of new cities policies have resulted in desolate governmental housing programmes and spread of gated communities (see Chapter 8). The housing crisis has become a quantitative and a qualitative problem. The literature reviewed has claimed that modes of housing production are illustrated by the processes through which this provision is attained, and it depends upon the balance between strategic goals of the system and needs of the individuals (Keivani and Werna, 2001b).

In reality, trying to obtain a home, people are challenged by two key issues: the unaffordability and inaccessibility of the formal housing in the new cities outside Cairo, and the lack of access to rent-controlled housing in the city despite the large number of vacant units (see Chapters 7 and 8). These two main challenges leave people with no option other than contributing to the growth of the informal sector. Informal areas provide reasonable prices, work opportunities, high social capital, and availability of services and transport. It ought to be emphasised that informality is a complex process, to which even the state has contributed mostly through its ineffective policies. The expansion of informal areas in Cairo has promoted a patronage system, in which the citizens have become the clients.

The discrepancy between the policies and reality in the urban form of Cairo has deepened the gap between the urban legislators and facilitators, and users. Consequently, people's housing needs have grown unfulfilled, forcing them towards informality. It seems that only the rich have managed to escape the housing trap and have benefited from this malfunctioning system (see Chapter 8). Despite the wealth of programmes and public agencies responsible for supplying affordable housing in Cairo, the figures suggest that there should not be a housing shortage, at least from a quantitative perspective (see Chapter 5 and Appendix D).

This study argues that an accumulation of ineffective policies has led to a distorted urban housing market, causing a gap between urban housing demand and supply. In short, there is a high supply of formal housing for the middle and high-income groups, and a supply shortage for the low-income group, leaving the informal sector to provide when the formal does not. Thus, there is a dysfunctional urban housing market in Cairo. This suggests that the housing policies keep on losing the opportunity to make a real impact on the whole city and improve the quality of life for its residents.

9.4. Recommendations

Housing policy in Egypt should become an enabling policy in the sense that a minimal set of well-understood rules ought to be written in response to residents' needs, and not to those of the army and elites, which is the current situation. These rules, in the form of policies, represent government interventions and have a significant and measurable effect on the housing sector. The last question that guided this research – 'What recommendations could be formulated to promote effective implementation of housing policies in practice' aims to offer some recommendations that could serve as a starting point in rethinking the housing policies and its implementation in the lived reality of the Cairenes, with the aim of improving the provision of housing ownership.

As demonstrated throughout the previous chapters, housing is a multi-disciplinary field with applications in different spheres – construction, finance, politics, social, real estate, and urban development, to name a few. Housing production is a part of the construction sector, housing finance of the financial sector, housing policy is a part of the political system, housing subsidies are a part of social welfare expenditures, residential property is part of the real estate sector, and residential development is part of urban development (Angel, 2000). Housing cannot be summarised in the form of an independent policy based on these separate parts. It can only be examined in relation to its impact on people's lived experiences and the state's interventions. As established, not all governmental interventions promote an effective housing sector. An effective housing sector is one that meets people's needs in an economical, equitable and sustainable way (Simon, 2016a). Moreover, the housing sector can provide a valuable mechanism for meeting other needs that go beyond the basic need for shelter, for instance reallocating income and reviving stagnant economy (Angel, 2000).

An enabling environment promotes a housing sector that is adaptive and self-organising, a system in which its objectives are achieved in spite of a changing environment (UN-Habitat, 2011b). This requires well-informed governance mechanisms seeking to assess and prioritise the welfare of all housing stakeholders, so that the overall performance of the built environment system is not hindered by individual goals (UN-Habitat, 2015a). Housing policies and building regulations should not be applied from one city or country to another without taking into consideration the specific socio-cultural context and the means of exchange and interaction. These building laws should have a clear application at ground level, else they will not be efficient nor practised. Enabling strategies assume various actors in the housing sector interact for the benefit of the people, empowering governments to perform their duties (UN-Habitat, 2009b). The challenge is to support housing provision in a way that works for the betterment of the society by evaluating the housing provision performance.

The housing system is created through a multitude of decisions, all intended to shape houses according to people's needs and available resources. Those involved with housing policy can only search for the general patterns, while relying on overall measures of whole sector performance. There is, however, an inevitable gap between the general policies and the concerns of individual households at the micro level. As established by the research case studies, these policy abstractions have little if any application in the reality of people's housing, and those responsible for policy writing need to listen. Their task is to translate these voices into simple objectives and use these to create clear policies in order to devise monitoring systems to measure progress. This study can be best appreciated as an extended research project on the multitude of interactions between housing policy and the provision of housing ownership. It does not only aim to demonstrate that housing policy matters, but to question why, when, and how it matters.

The vision for the future of housing policy should not be fixed and static. Clearing the society of its slums in the name of a global city vision is no solution for housing problems if the remaining houses are inadequate, unaffordable, inaccessible, overcrowded, or unsustainable. Replacing all unwanted housing with mass standardised housing through public schemes is not the best option, being either ineffective or financially impossible. Cities are continuously reinventing themselves, and for the future of the housing sector, policies should be dynamic, seeking to ensure that certain features of the sector remain within acceptable standards while the rest are open to change. Thus, these standards and the policies drafted to attain them should also be expected to change over time.

The housing sector is shaped by the broad cultural, social, economic, political and built environment contexts, and the interaction between these markets. At large, housing policy faces four main challenges – effective regulation, sensible monitoring, reforming public housing institutions, and creating new equitable and efficient housing programmes (Angel, 2000). Effective regulation suggests enforcing a set of agreed rules that limit detrimental actions without preventing the housing sector's ability to meet needs. These rules have to be developed by all stakeholders and receive political support to be passed into law, have to be enforced successfully and monitored continuously to measure their impact. Sensible monitoring refers to using quantitative and qualitative housing indicators to reassess the performance of the housing sector with the aim of improving the policy implementation in reality. Reforming public housing institutions should aim to minimise bureaucracy, greed, corruption, and ignorance from the central and local governmental housing agencies. Creating new equitable and efficient housing programmes requires public funds to be reconsidered and support the vulnerable and poor people housing sector. These challenges will separate the enabling from the non-enabling housing policy environments.

In order to increase the housing sector's performance, there is a need for real public participation aiming to formulate, apply, monitor, and amend the housing policy environment for a continuous progress. The state must acknowledge that a self-sufficient public is not a threat to the society, but an advantage when employed effectively. Few specific recommendations may support the housing stakeholders to create an enabling housing policy environment, but they will need further examination before being applied in details.

The recommendations have been written for the key elements of the housing system – housing officials, governmental structure, housing professionals, and housing policy framework. These recommendations may increase the opportunities for the system to evolve into a more fair and sustainable form. In addition, these recommendations aim to raise awareness of the existing lost knowledge of the socio-economic contexts of the residents and promote Islamic architecture which is more suitable for the climate and the people's needs. Combined, these represent the start of a long-term process and further studies and recommendations to help mitigate the housing issues in Cairo are needed.

9.4.1. Recommendations for the housing officials

In relation to the new cities and governmental housing programmes, there is a need to create an accessible, centralised, up-to-date database of all people eligible for state subsidies and all the available governmental housing programmes in order to eliminate false claims and prevent subsidy leakage (see Chapter 7). This would develop an integrated plan for housing subsidies and monitor its implementation by the various funds, directorates, agencies, and ministries. Moreover, it is important to consider how the social capital of new cities can be increased by rethinking the allocation system to allow extended family members and friends to relocate in proximity to one another, as opposed to using random distribution which discourages families to

relocate anywhere else (see Chapter 8). This can be achieved through applying different policies to each nuclear family according to the eligibility criteria at different costs, but with the possibility to choose the unit locations as happens in the private market. It is also imperative to apply the cycle of planning, implementation and post-implementation (review, monitor and evaluate) on the new housing programmes aiming to boost the beneficiaries' adaptability in the new location.

In time, this will benefit community participation and increase the efficiency of these projects. Beneficiaries' and stakeholders' participation is necessary to accommodate the actual residents' needs and plan programmes for the future rather than as an end in itself (see Chapters 7 and 8). In time, this will support the management process and will release some of the government's responsibilities, while attaining community involvement. This cycle may determine the policies and interventions required to improve the housing market, which ought to be based on up-to-date public data regarding income, land, and housing prices. Eventually, this would help to achieve more flexible and effective housing programmes that span across many decades, regardless of political changes.

Another suggestion makes reference to re-orientating part of the housing ownership programmes towards rental units (see Chapter 5). This would require large sums of public investment and subsidies to be redirected towards rental units in accordance with the proportion of poor families. The housing expenditure should be in relation to their income.

a) Urban planning, programmes design and sustainability

In terms of the housing design, the challenge is to blend modern technology with the traditional patterns of architecture (e.g. local materials, arid architecture, compact form, etc.) to increase the sustainability of the settlement and create a more adaptable and suitable socio-cultural and economic environment. Blending these two

designs would promote an enhanced lived experience. The case studies have shown that the residents in informal areas, followed by those residing in governmental housing units, are more willing to live in a house built using local materials, traditional architecture, and adaptive to climate, than the residents in gated communities (Appendix E). This would require the re-evaluation of informal settlements in order to understand the aspects upon which residential choices are based as people have had to look beyond conventional routes to obtain access to income, land, shelter, and vital social services (see Chapter 7). These aspects can then be replicated in the planning of the new settlements to ensure the design appeals to the future residents. Cairo's journey to urban sustainability starts with learning from the past and planning for the future by embracing the local knowledge and merging it with the appropriate modernist ideas revolutionised by the technological advancements.

The housing programmes should maintain a level of flexibility in regard to beneficiaries' residential mobility and allow them to fulfil their current and future needs (see Chapters 5 and 8). This should be done in accordance with case-by-case field-based confirmation in order to verify each applicant's situation and determine its eligibility for subsidised units in different locations. Effective governmental programmes offer good infrastructure, social and health services, alongside good transport links with the existing settlements which will play as an attraction point for people and businesses. This would require a systematic approach to developing new cities rather than the current way of allocating land plots and projects.

Another is to combine physical upgrading with a socio-economic agenda when addressing the planning and implementing upgrade-plans in informal areas (see Chapter 7). In order to achieve the set goals of improving the quality of life, the community transformation is centred upon developing the components' characteristic of it – the people themselves. That would raise the profile of laws enforcement, particularly after establishing trust between the state and the citizens.

It supports refining the laws over time, and applying them fairly on all different groups of people and areas. This study views informal areas as symptoms of malfunctioned housing policies environment. Informal areas are considered to have been created as a practical alternative to provide for those who are unable to access the formal market (see Chapter 7). Thus, an appropriate approach in order to deal with informal areas is to upgrade the existing ones while trying to limit their fast expansion by creating a fair and effective housing environment.

Therefore, a vital proposal is to change the misunderstanding of informal areas at official and public levels through changing the circulating discourse in the media, and establish campaigns that can formulate a base for the community participation and contribution to tackle their existing issues.

b) Distribution of investment and resources

Investment and resources must be fairly distributed among the different regions, cities and districts according to their demographic weight, future goals, and their vulnerabilities (see Chapters 5 and 6). There is a desperate need for the social housing programmes in Egypt and Cairo to be redirected in such a way as to benefit the poor, based on a fair geographical distribution, particularly in deprived and existing regions as opposed to centring on big cities and new cities which, in turn, require a greater level of investment. It then becomes vital to invest in the places where people live (and want to live) instead of developing more cities in the desert to remain predominantly vacant. New cities have absorbed a very substantial amount and proportion of available capital, whereas the existing cities, especially Cairo, have received a fraction of this investment. As past experience has shown, these investments in new desert cities have been built in vain, while Cairo is crumbling under the weight of the overcrowded deteriorated buildings. In other words, starting a regeneration process of the existing Cairo rather than neglecting it would seem more logical move.

Moreover, there is a crucial need to use public funds to meet people's urgent needs, so they see a positive impact of the state's efforts and investments on their daily life. This was evidenced by the case studies, in which 86% of the respondents in Manshiat Naser stated that the government should improve services and infrastructure rather than spending public funds on road paving, road lighting, and establishment of four new markets (see Chapter 7 and 8). That will promote public participation, which should be one of the desired goals.

9.4.2. Recommendations for the governmental structures

A recommendation is to create vertical communication channels between central and local government and horizontally between the bodies of central and local government themselves. An additional recommendation is to activate the 'real' election system for the allocation of official positions instead of the current appointment system (see Chapter 6). Engage the power of people's representatives at the national, regional and local levels represented in the parliament, governorate popular councils and local popular councils. By doing this, people will have the power to choose who decide and lead the future development, and can question their performance which in turn will increase the efficiency, accountability and transparency of the state devices. The case studies have revealed that people are aware of the public participation, with 87% of the respondents in Maspero Triangle stating that they acknowledge the importance of taking part in the decision-making process.

It is also necessary to apply a decentralisation policy (e.g. financial, decision making) across the official administrative structure, including activate the essential role of local government (see Chapter 6 and Appendix C). That would need to be financially independent of other agencies, and employ well-paid and qualified staff to perform its duties. The fundamental dilemma facing localities across the system in Egypt lies in the philosophy of the system itself, namely a legacy of the

centralisation heritage of the state despite experiencing a democratic openness or various stages of the state militarisation. Thus, Egypt requires decentralisation of the decision-making process, redirecting a part of the national revenues to local government, and engaging urban citizens in public choice-making.

One more recommendation refers to releasing the military's tight hold of power over civil life (see Chapter 6). The role of the army in Egypt is alternating between its key responsibilities as national security and defence system and its economic motivations. However, military influence expressed as ultimate power within the political leadership circles opens the door to abuse of power. This has resulted in the appointment of former military officers in state administration bodies, and allocation of vast public lands through mostly presidential decrees to army for housing investment projects.

9.4.3. Recommendations for architects, planners and construction labourers

In order to achieve adequate and appropriate urban development in Cairo, there is a need for a process to articulate the initiatives of public and private stakeholders that seek genuine co-operation with the aim of developing the city. Thus, an update of the academic curriculum of planning and architecture is needed in order to bridge the gap between what is being learnt in universities and the urban realities, and what can be evolved in a more sustainable way (see Chapter 6).

The key challenge for architects or planners is to produce a cultural design in which to merge professional knowledge, people's experience and nature that will form a better and more sustainable urban morphology. The same should be applied to vocational education schools that can produce well-trained skilled workers to supply the technical labour. A sustainable and affordable architectural solution of rising to such challenge is using local materials in creating traditional design elements.

9.4.4. Recommendations for housing and land policies

a) The need for realistic policies

Policies ought to be realistically designed to achieve various solutions for households at different layers on the income ladder and providing housing opportunities for everyone. When not enough affordable housing is offered to the poor, strict regulations or land protection enforcements will not be able to stop the creation of informal settlements. This would require an up-to-date database of the needed units, its type, categories, and preferable location before building a large number of unwanted or unsuitable units. Essentially, the market should be studied before offering more housing units or legal provisions that no-one needs, wants or uses, as in the desert new cities (see Chapter 5). For policies to be effective, they must be planned on a wealth of information, based on evidence, and quick to respond to people's real needs.

It is also desirable to create a dynamic and equitable urban policy with different stakeholders' participation. As previously demonstrated, what contributes even more to the housing issue in Egypt is the non-existence of an all-encompassing official urban policy, but a series of personalised national sectoral policies. It is required that Egypt drafts an all-accessible housing policy in which the objectives to be clearly indicated through well-informed programmes aimed to create a sustainable and fair built environment. Sustainable cities, as emphasised in the New Urban Agenda and Sustainable Development Goals, are holistically planned settlements that enhance the natural environment and offer good quality affordable housing and local work opportunities in healthy and sociable communities (Simon, 2016b; UN, 2016a; UN-Habitat, 2016a).

b) Uniting the administrative borders and sharing the strategic national goals accordingly

Another suggestion is to redesign the administrative map of Egypt in which each ministry and its dependent organisations is represented equally (see Chapter 6). This implies disposing of the current administrative maps that each ministry has, which cause confusion and conflict of interests. It also requires that Greater Cairo becomes one administrative zone rather than being split among three governorates. This would improve the efficiency of implementing policies fairly across all zones and managing the country more effectively. It is also needed the refinement of policy, management, production, and finance of the existing housing laws with the participation of housing stakeholders. This would reduce distortion, corruption, malfunction and manipulation of the housing environment. To establish effective housing management in Cairo, the government does not need more reforms, legislation and regulations, but an intrinsic motivation to apply the refined laws at all levels while involving all stakeholders in the process.

c) Mortgage system

The mortgage system needs to re-evaluate the methods used to finance people, most particularly the disadvantaged groups (see Chapter 6). This is because the total value of mortgages allocated to low-income groups accounted for only 18.5%, in comparison to 77.1% allocated to high-income groups (Table 6.8). Thus, the allocation eligibility of targeted people, particularly those who work in informal market or have variant incomes needs to be reassessed.

9.5. Limitations and further considerations

As with any initial research, there are many reasons why constraints should be identified and considered. The fact that this study has had one city as a sole focus has limited the comparison with other cities that share similar features which in turn would lead to building a larger

theoretical basis and would result in a greater understanding of the housing mechanisms. Furthermore, the case studies represent specific urban forms in Cairo; there are other patterns that have not been included, such as the public allocation of land parcels for building and middle-class governmental housing units. Another limitation is represented by the absence of focus group discussions, which initially had been considered as part of the data collection methods but proved unattainable during the fieldwork. Considering the time of the fieldwork, during the socio-political unrest, people refused to take part in such discussions on the basis of fear and extreme caution.

An additional limitation is represented by the restricted access of Egyptian society to this research. Moreover, considerable literature is still unsuccessful in reaching a broader audience, because it is produced by international rather than domestic institutions and agencies and written in a foreign language. To address this issue, there is a possibility that this research will be translated into Arabic and made available at the main universities and public libraries across Egypt.

Data on Egypt and Cairo are unreliable and incomplete. Much statistical information has not been made public. Besides, there is extensive doubt concerning the reliability of the figures. Generally speaking, the quality of data is inadequate in Egypt due to two key factors. First, data gathering is under the control of a state organisation, CAPMAS, which is run by the Egyptian military establishment and, second, financial constraints have severely limited the funds for research and data collection. Therefore, some limitations of the research should be considered with the intention of improving its reliability, cross-checking technique was employed while patching together incomplete (and possibly contradictory) information from various sources.

One other important limitation is my necessary decision to focus on one aspect of urban (un-)sustainability of Cairo, namely housing,

rather than trying to tackle the city as a whole. The underlying motives that have forced me to focus on housing in Cairo were mainly limited time, financial resources, and the wealth of issues to be addressed in one PhD study by just one researcher. The implications of choosing a different theme or sector, for instance the environmental issues in Cairo, the infrastructure, transport, or the built environment in Cairo as a whole, would have required a different approach, and its implications would have been different.

Having considered my positionality, namely a native Egyptian who grew up in Cairo, gave me the privilege of trust when engaging with the study informants. It was a great help that I spoke the same language, which made it easier to communicate and understand the various nuances of respondents' answers. Overall, being an Egyptian born and raised in Cairo gave me the insider's status due to commonality (see Chapter 3).

9.6. Scope for future research

There is considerable opportunity to extend this research in both the themes and the methods addressed in this study. More case studies with greater variation of housing forms are desirable in order to verify and validate the results emerging from this research. Another possibility is to apply the methodology adopted in this research to a different city. The suggested framework in this study can be adjusted by adding other indicators that are more related to the context of the city. This research has reflected its outcomes on the housing policy environment in the form of a number of recommendations. Further work should assess how these strategies could be implemented.

Another consideration should be given to studying the housing market after Egypt has permitted its local currency to float freely (see Appendix C). On the one hand, this has impacted on the prices of construction materials and labour wages, which in turn has affected the prices of the housing units. On the other hand it has devaluated

people's savings. This makes the process of acquiring housing units more challenging, and ought to be researched.

This study also aspires to motivate researchers and investors to embark on a quest to develop Cairo, while meeting the challenges of urban growth and to continue building a holistic picture of the housing mechanism with more focus on micro levels. This should help complete the Global Housing Indicators' assessment framework for identifying the key issues and ways to address them and meeting the set goals in the New Urban Agenda and Sustainable Development Goals.

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Appendices

Appendix A: Methodology attachments

A.1. Cover letter to participants

Mostafa ELBESHBESHY
BArch MA
Postgraduate research student
Department of Geography
Phone: +44 1784 443563
Fax: +44 1784 472836
Mostafa.elbeshbeshy.2013@live.rhul.ac.uk
www.royalholloway.ac.uk

Royal Holloway
University of London
Egham, Surrey
TW20 0EX

Consent to Participate in Cairo: The divided city. Policy versus reality and the journey to sustainability research

You are invited to participate in a research study, entitled "*Cairo: The divided city. Policy versus reality and the journey to sustainability*". The study is being conducted by Mostafa Elbeshbeshy, Department of Geography at Royal Holloway University of London, Royal Holloway. The purpose of this research is to understand and analyse the housing dynamics of Cairo in order to provide housing policy recommendations towards a sustainable city that meets residents' needs.

Your participation in the study will contribute to a better understanding of urban policy process in Cairo and provide information on how residents are being engaged in the planning process and decision-making, and the practicality of involving stakeholders in development mechanisms for providing housing. You are free to contact the investigator at the above address and phone number to discuss the study. You must be at least 18 years old to participate.

<u>If you agree to participate</u>:

- The questionnaire will take approximately thirty minutes of your time;

- You will complete a questionnaire about to the housing conditions and aspirations, and concerns about Cairo regarding urban sustainability;
- You will not be compensated.

Risks/Benefits/Confidentiality of Data

There are no known risks. There will be no costs for participating, nor will you benefit from participating. Your name will be kept during the data collection phase for tracking purposes only. A limited number of research team members will have access to the data during data collection (identifying information will be stripped from the final dataset).

Participation or Withdrawal

Your participation in this study is voluntary. You may decline to answer any question and you have the right to withdraw from participation at any time. Withdrawal will not affect your relationship with Royal Holloway University of London in anyway. If you do not want to participate either simply state this and the researcher will stop the process.

Contacts

If you have any questions about the study, contact the researcher at Mostafa.Elbeshbeshy.2013@live.rhul.ac.uk or the stated contact details above.

Questions about your rights as a research participant

If you have questions about your rights or are dissatisfied at any time with any part of this study, you can contact, anonymously if you wish, the Royal Holloway, University of London Ethics Committee at the address above.

A.2. The questionnaire for Cairo residents

Please complete the following Cairo's Housing Survey. Thank you for your time.

ROYAL HOLLOWAY UNIVERSITY OF LONDON

Background information

1. Name (optional):

……..

2. Gender:

☐ Male

☐ Female

3. Age group:

☐ Less than 18

☐ 18 – 29

☐ 30 – 44

☐ 45 – 60

☐ Over 60

4. Marital status:

☐ Single

☐ Married (both, husband and wife live together)

☐ Married (husband and wife not living together)

☐ Widowed

☐ Divorced

☐ Separated

5. Level of education:

☐ No degree

☐ Primary school

☐ Secondary school

☐ College

☐ Diploma

☐ University

☐ Post-graduate

6. Do you live/ work in Greater Cairo?

☐ Live

☐ Work

☐ Live and work

☐ Visit/ stop over

7. How many years have you been living in Greater Cairo?

☐ Less than 5 years

☐ 5 to 10 years

☐ 11 to 15 years

☐ 16 to 20 years

☐ More than 20 years

☐ Entire life

8. *'If not entire life'*, where did you come from?

Name of Governorate

…….

Name of District

……..

9. *'If entire life'*, where did your grandparents/ ancestor live?

Name of Governorate

……

Name of District

……

Household Information

Hereafter any reference to household would mean 'normal household' defined as a house where family members and relatives live.

10. How many members do you have in your family?

Adults: …… Children (less than 18 years): ……..

11. How many rooms in the house? (Do not include hallways/ balcony or any storage rooms)

☐ Bedroom/s ☐ Living room/s ☐ Bathroom/s ☐ Kitchen/s

12. How many properties do you own or rent in…?

Own				

Rent		Greater Cairo (GC)		New satellite cities (NSC) in GC		National property (outside GC)		International property (outside Egypt)

13. Do you or your family have these house-appliances/ things?

- ☐ Cooker
- ☐ Fridge
- ☐ Electric fan
- ☐ Air conditioning unit
- ☐ TV
- ☐ Solar panels
- ☐ Recycle water tank
- ☐ Telephone/ Mobile
- ☐ Bicycle
- ☐ Motorcycle
- ☐ Car
- ☐ Growing your own food
- ☐ Internet
- ☐ Computer/ laptop

Economic Information

14. Employment status

- ☐ Employed
- ☐ Unemployed (go to Q21)
- ☐ Student (go to Q21)
- ☐ Student-employed
- ☐ Retired

15. Type of employment

- ☐ Government
- ☐ Private
- ☐ Informal
- ☐ Mix/ other (please specify)

……

16. What type of work contract do you have?

- ☐ Contract
- ☐ Daily basis
- ☐ Task-based
- ☐ Mix/other (please specify)

……

17. How long is your current contract?

☐ Years

☐ Months

18. How many working hours per day?

(Reference to the last week)

☐ per day

19. How many working days per week? (Reference to the last week)

☐ per week

20. How often do you receive your wages?

- ☐ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ Occasionally
- ☐ Mix/ other (please specify)

……

21. What is your family's gross monthly money income?

☐ per month

Do you have a non-money income?

☐ Yes ☐ No

'If yes' (please specify)

……
……

Transport and commuting information

22. Means of transport you frequently use to commute (choose one or more)

☐ Walking
☐ Cycling/ Bicycle
☐ Public transport (bus, minibus)
☐ Private transport (microbus, taxi, tok tok)
☐ Private (car/ motorcycle)
☐ Metro and tram
☐ Other (please specify) ……..

23. How long does it take you to reach your work/ school?

☐ up to 15 minutes
☐ 16-30 minutes
☐ 31-45 minutes
☐ 46-60 minutes
☐ More than an hour
☐ Variable (please specify) ……

Land and shelter information

24. What type is your accommodation?

☐ Hut
☐ Room
☐ House
☐ Apartment
☐ Other (please specify)……

25. Do you share the amenities with other neighbours?

☐ Yes
☐ No

'If yes' (please specify) …… …… ……

26. Why do you live in this settlement? (choose one or more)

☐ Relocated by government
☐ Network of family and village kin in this area
☐ Cheap price
☐ Workplace is near
☐ More dwelling space
☐ Seeking a better lifestyle
☐ A dwelling unit was easily available
☐ Came to live here because of marriage
☐ Other (please specify)……..

27. Do you (or your household) own or rent this accommodation?

☐ Own it outright (go to Q28)
☐ Buying it with the help of a mortgage or loan (go to Q28)
☐ Live here rent-free (including rent-free in relative's/ friend's property but excluding squatters) (go to Q29)
☐ Old rent law (go to Q29)
☐ New rent law (go to Q29)
☐ Squatting (go to Q29)
☐ Other (please specify)……

28. *'If own'* to Q27, what type of title is it?

☐ Officially registered
☐ Legal title, unregistered
☐ Purchase receipt
☐ Illegal ownership

29. Do you own more than one property?

☐ Yes
☐ No

***'If yes'* to Q29, how many properties do you own?**

☐ Other (please specify) ..... ……..... .....

30. *'If yes'* to Q29, what is the reason of owning more than one property? (choose one or more)

☐ Investment (to sell)

☐ Monthly income (to rent)

☐ Family-use in future

☐ Other (please specify)

……

31. *'If new and old rent'* to Q27, who is your landlord?

☐ The local authority/ ministry of housing/ government

☐ Private (agent)

☐ Relative/ acquaintance of any current household member

☐ Another individual private landlord

32. How has this land been obtained through?

☐ Illegal possession of land

☐ Government/ local authority

☐ Private

☐ Inherited/ gift

☐ Other (please specify) …….

33. Is this land permitted for building?

☐ Yes

☐ No

34. The property was built through…?

☐ Legal procedure (e.g. having building licence, according to zoning)

☐ Quasi-legal procedure

☐ Illegal procedure

☐ Other (please specify)

……

35. Who was the supplier (builder) of your accommodation?

☐ Myself (go to Q36)

☐ Contractor (go to Q37)

☐ Government (go to Q37)

☐ Private sector (e.g. architecture firms, agency) (go to Q37)

☐ Other (please specify) (go to Q37) ……

36. *'If myself'* to Q35, did you consult any professionals in terms of design and safety?

☐ Yes

☐ No

***'If yes'* to Q36, who was it?**

……

37. How would describe your general experience in this area?

☐ Very satisfied

☐ Satisfied

☐ Indifferent

☐ Unsatisfied

☐ Very unsatisfied

38. Do you consider this area to be …?

☐ Well-developed

☐ Moderate developed

39. Do you have the sense of belonging to the area you are living in?

☐ Yes always

☐ Sometimes

☐ Poorly developed

☐ informal settlement

☐ Do not know

40. Do you know your rights and responsibilities towards your neighbourhood?

☐ Yes

☐ No

☐ Perhaps

☐ Not at all

☐ Do not know

41. In your opinion, what are the potentialities in this area?

(Choose one or more)

☐ Historical

☐ Landmarks/ Nodes

☐ Economic centre

☐ Spiritual life/ sense of place

☐ Other (please specify) ……

42. What do you think are the most noticeable problems in this area? (Choose one or more)

☐ Living conditions

☐ Insecurity of housing/ land tenure

☐ Building violations

☐ Low income/ poverty

☐ Household overcrowding

☐ Lack of services

☐ Environmental issues

☐ Other (please specify)

……

43. In your opinion, does this area have any form of visual pollution?

☐ Yes

☐ No

☐ Do not know

'If Yes', What are the main causes of visual pollution? (Choose one or more)

☐ Rows of shops obscure buildings

☐ Graffiti and vandalism of buildings

☐ Deterioration of existing buildings

☐ Inappropriate advertisement banners

☐ Overcrowded streets and pavements with street vendors

☐ Distorted skyline

☐ Very narrow pedestrian paths

☐ Do not know

☐ Other (please specify)…….

44. What are the main land management problems within your area? (Choose one or more)

☐ None

45. Who do you think is responsible for these problems? (Choose one or more)

☐ Government

☐ Conflict ownership of plots

☐ Bureaucracy of land registration

☐ No clear physical demarcation of plot boundaries

☐ Lack of or poor maintained register of ownership

☐ Slumming and squatting

☐ Insecurity of tenure

☐ Lack of maps, plans and signs

☐ Other (please specify) ……

46. Do you think the real-estate prices in Greater Cairo are overpriced?

☐ Yes

☐ No

☐ Do not know

48. Do you regularly vote?

☐ Yes

☐ No

***'If yes'* to Q48, is it national, local election or both?**

……

When was the last time you voted?

……

☐ Local authority

☐ Local residents

☐ Private developers

☐ Other (please specify)

……

Why?

……

47. In your opinion, which approach is better for governmental-supplied housing for those with low income?

☐ Rent approach

☐ Ownership approach

☐ Both approaches

☐ Do not know

49. Do you know the name of these people? (if known, write the names down)

President ……..

Prime Minister ……..

Minister of Housing …….

Minister of State for Urban Development and Slums ……

Mayor of Cairo …….

Mayor of Giza ……..

Mayor of Qalyubia ……

Your area Member of Parliament ……..

Chief executive of local council …….

***'If the participant is living in old Greater Cairo'* (if not, go to Q56)**

50. Do you think New Satellite Cities (NSC) are good places to live in?

51. Have you visited or lived in any of the NSC?

☐ Yes

☐ No

☐ Do not know

52. *'If yes'* to Q50, what stops you from relocating there? (choose one or more)

☐ Financial issue

☐ Transport issue

☐ Employment issue

☐ Lack of affordable services (infrastructure, education, health, …)

☐ Family attachments

☐ Security issue (fear of moving to unknown neighbourhood)

☐ Other (please specify)……

☐ Yes

☐ No

53. *'If no'* to Q50, what is the reason not to relocate? (choose one or more)

☐ Have lived here all my life

☐ Will lose my livelihood

☐ Can't afford paying monthly instalments

☐ Workplace is far from the offered unit

☐ Maintenance cost will be more in a new house.

☐ Other (please specify)……

54. If the government offers you affordable housing, would you accept to relocate?

☐ Yes

☐ No

☐ Maybe

(Please specify)

…….....

55. *'If yes'* to Q54, what would make you relocate there? (choose one or more)

☐ Own house

☐ Adequate living space

☐ Improved facilities (water, sanitation, health, education)

☐ Improved standard of living

☐ Other (please specify)……

***'If the participant is living in New Satellite cities in Greater Cairo'* (if not, go to Q60)**

56. Do you think New Satellite Cities (NSC) are good places to live in?

☐ Yes

☐ No

☐ Do not know

57. For how long have you been living here?

☐ Years

☐ Months

58. What made you relocate here? (choose one or more)

☐ Own property

☐ Adequate living space

☐ Improved facilities (water, sanitation, health, education)

☐ Improved standard of living

59. Do you still consider relocating as the right decision?

☐ Yes

☐ No

☐ Maybe

Why? (Please specify) .....

☐ Other (please specify)……

Infrastructure information

60. What are the inadequacies in infrastructure, if any? (Choose one or more)

☐ Transport and traffic management

☐ Deterioration of streets and pavements

☐ Sanitary network/ sewage system

☐ Solid waste management and debris

☐ Electricity, telephone and internet networks

☐ Absence of fire system and extinguisher

☐ Water pipes

☐ Groundwater

☐ Other (please specify)

……

61. Do you have drinking water system in your home or is it outside?

☐ In-house premises (go to Q62)

☐ Outside house premises (go to Q63)

☐ Not applicable (go to Q65)

62. *'If in-house premises'*, what is the main source of drinking water in your home?

☐ Tap

☐ Tube well/ hand pumps

☐ Not applicable

☐ Other (please specify)

……

63. *'If outside house premises to Q61'*, what is your main source of drinking water?

☐ Public tap (go to Q65)

☐ Well/ Hand pump (go to Q65)

☐ River/ Canal/ Lake/ Spring (go to Q65)

☐ Government tater tank (go to Q64)

☐ Private water tank (go to Q64)

☐ Not applicable (go to Q65)

☐ Other (please specify)

……

64. *'If governmental or private water tank'*, how much money do you pay for the water per month?

[ ] EGP per month

☐ Not applicable

☐ Other (please specify)

……

65. *'If outside house premises to Q61'*, are you willing to pay to have your property connected to clean water supply system?

☐ Yes

☐ No

☐ Maybe

66. Do you have electricity at home?

☐ Yes (go to Q67)

67. *'If yes'*, do you have a power meter?

☐ Yes (go to Q68)

☐ No (go to Q71)

☐ No (go to Q69)

☐ Not applicable

68. *If 'Yes'* to Q67, how do you pay the electricity bill?

☐ Electricity office

☐ Landlord

☐ Never pay anywhere

☐ Not applicable

69. *If 'No'* to Q67, how do you get electricity?

☐ Neighbour

☐ Landlord

☐ Illegal connection to the national grid

☐ Not applicable

70. *If 'Yes'* to Q66 but 'No' to Q67, how do you pay for the electricity?

☐ Neighbour

☐ Landlord

☐ Do not pay

☐ Other (please specify)……..

71. Do you have any different sources of electricity?

☐ Yes

☐ No

(Please specify) ……

72. Does this area have a sanitation system?

☐ Yes (go to Q73)

☐ No (go to Q75)

73. If 'Yes' to Q72, what is the state of sanitation in this area?

☐ Very good

☐ Good

☐ Moderate

☐ Bad

☐ Very bad

☐ Do not know

74. In the past five years, has the sanitation…?

☐ Improved

☐ Remained the same as before

☐ Worsened

☐ Do not know

75. Where do you dispose of your garbage? (choose one or more)

☐ No specific place (go to Q77)

☐ Collection point/ common dumpster (go to Q76)

☐ Open land (go to Q77)

☐ Collected from home (go to Q77)

☐ Other (please specify) ……

76. If 'common dumpster', how often is the waste collected?

☐ Everyday

77. Do you sort your waste into …?

☐ Alternate days

☐ Once a week

☐ Once in two weeks

☐ Once a month

☐ Not fixed

☐ Do not know

☐ Not applicable

78. Who collects the garbage in this area?

(choose one or more)

☐ Cairo Cleaning and Beautification Agency (CCBA)

– government

☐ Private groups through CCBA

☐ Private groups through community

☐ Do not know

☐ Not applicable

Recycle waste (glass, paper, plastic and metal) ☐

Organic Waste (everyday leftovers) ☐

Non-recyclable ☐

(Please specify)

79. Have you ever complained about the infrastructure problems in this area?

☐ Yes (go to Q80)

☐ No (go to Q81)

80. To whom have you complained about these problems?

……

Any response?

……

Services information

81. Is there any education building serving this area?

☐ Yes (go to Q82)

☐ No (go to Q83)

82. If 'Yes' to Q81, what type of educational services are they?

(choose one or more)

☐ Government (state owned)

☐ Private (local and national)

☐ Private (international)

☐ Not applicable

☐ Other (please specify)

83. Is there any medical service in this area?

☐ Yes

☐ No

84. In case of sickness, where do you or your family usually go?

☐ Governmental hospitals

☐ Private clinics

☐ Medicine from the pharmacy

☐ Do not take any medicine

☐ Not applicable

☐ Other (please specify)

Housing policy and participation

85. Do you know about the right to shelter/ housing?

☐ Yes

☐ No

If 'Yes' (please specify)

……

86. Do you know your rights and responsibilities in terms of housing?

☐ Yes

☐ No

If 'Yes' (please specify)

……

87. Who are the key organisations (or people) you think of when it comes about providing housing?

……

88. Do you know how to claim a governmental affordable housing?

☐ Yes

☐ No

If 'No' (please specify) ……

89. Have you ever read or researched about? (Choose one or more)

☐ Housing policy (right and responsibility)

☐ Building regulations

☐ Claiming a property/ land from the government

☐ Officially registering a land or a property

☐ Urban sustainability

☐ Public participation

☐ Housing developments projects

90. Have you had any experience with the local council/ government in regards housing?

☐ Yes (go to Q91)

☐ No (go to Q93)

91. If 'Yes', what was your experience about? (choose one or more)

☐ Developing the neighbourhood

☐ Building licence

☐ Obtaining land/ accommodation

☐ Conflict resolution

☐ Services

☐ Infrastructure (roads, water, sanitation, gas, etc)

☐ Other (please specify) ……

92. How was your experience?

☐ Very Satisfied

☐ Satisfied

☐ Indifferent

☐ Unsatisfied

☐ Very unsatisfied

93. Do you think there is an issue of housing and housing policy in GC?

☐ Yes (go to Q94)

☐ No (go to Q95)

☐ Do not know (go to Q95)

94. If 'Yes', what do you think the housing issue is? (choose one or more)

☐ Too many vacant properties

☐ Over-supply properties

☐ Under-supply properties

☐ Supplied housing properties not relatively matching with the social class targeted for

☐ Real-estate speculations – too expensive

☐ Problems of housing policy

☐ Poor holistic development approach (lack of infrastructure, transport, services, employment)

Participation Section

95. Have you heard before about public participation in terms of decision-making?

☐ Yes

☐ No

96. Which of the following stakeholder groups do you consider to be a member of? (choose one or more)

☐ The local authority/ government

☐ Community/ action group

☐ Property tenant

☐ Consultant/ expert

☐ Property owner

☐ Employment

☐ Developer/ investor

☐ Other (please specify)

97. Have you ever participated with other residents/ NGO/ local authority to improve the built environment of this area/ Cairo?

☐ Yes (go to Q98)

☐ No (go to Q99)

98. If 'Yes' to Q97, what was your responsibility? (Choose one or more)

☐ Being a committee member

☐ Doing administrative or clerical work

☐ Raising funds

☐ Organising events

☐ Training provision

☐ Other (please specify) ……

99. If 'No' to Q97, are you now willing to volunteer in the future?

☐ Yes (go to Q101)

☐ No (go to Q100)

☐ Do not know

100. If 'No' to Q100 (please specify)

……

101. Have you ever attended any housing development meeting/ Symposium before?

☐ Yes

☐ No

102. Can you mention the most efficient NGO in this area?

……

103. In your opinion, who participates efficiently in improving this local area? (Choose one or more)

☐ Political party

☐ Religious group

☐ Landlords

☐ Residents

☐ NGOs

☐ Employees

☐ Local authority/ National government

☐ Other (please specify) ……

104. What do you think about the government's attitude towards public participation?

☐ Strongly encouraging

☐ Encouraging

☐ Indifferent

☐ Discouraging

☐ Strongly discouraging

☐ Do not know

105. Do you feel that all stakeholders' interests are equally important?

☐ Yes

☐ No

☐ Do not know (go to Q106)

Why?

……

106. Have you considered taking any of the following actions to mitigate a local problem? (one or more)

☐ Sent a complaint to local newspaper

☐ Joined an action group

☐ Contacted the appropriate organisation/ authority

☐ Only thought about it

☐ Courthouse

☐ Other (please specify)

107. Why would you get involved in urban development of your area? (one or more)

☐ Improve the existing situation

☐ Maintain human and quality of life

☐ Consider the future of the area

☐ Increase the sense of belonging

☐ Type of democracy

☐ Take a part in making decisions

☐ Recognise and communicate the needs and interests

☐ Other (please specify) ……

108. How would you describe the government's attitude towards housing?

☐ Very satisfied

☐ Satisfied

☐ Indifferent

☐ Dissatisfied

☐ Very dissatisfied

☐ Do not know

Urban Sustainability

109. Have you ever heard or read about sustainability or urban sustainability?

☐ Yes (go to Q110)

☐ No (go to Q111)

If 'Yes' (please specify) ……

110. Do you think this area is developed in a sustainable way?

☐ Yes

☐ No

☐ Do not know (go to Q111)

111. What materials is your property built of? (choose one or more)

☐ Concrete and steel

☐ Bearing wall

☐ Wood/ Metal sheets

☐ Other (please specify)

……..

112. What type of housing would you like to live in?

☐ Modern architectural style housing (e.g. concrete, steel)

☐ Local architectural style using local materials (e.g. rock, stone, clay, brick)

113. Would you consider living in a house built using local material and designed in climate-adaptive way (e.g. Islamic or arid architecture)?

☐ Yes (go to Q115)

☐ No (go to Q114)

☐ Do not know (go to Q114)

114. If 'No' or 'do not know' to Q113, can you identify the reason why would you not consider living in this type of housing?

……
……

115. Do you have solar panels and/ or recycle water tank in your property?

☐ Yes (go to Q116) ☐ No (go to Q117)

116. If 'Yes' to Q115, how is your experience?

……

117. If 'No' to Q115, would you consider installing solar panels and recycle water tank in your property?

☐ Yes (go to Q119)

☐ No (go to Q118)

☐ Don't know (go to Q118)

118. If 'No' to Q117, why would you not consider it? (choose one or more)

☐ Financial issue (e.g. too expensive)

☐ Technical issue (e.g. lack of enough knowledge about using or installing it)

☐ Unsightly issue

☐ Market issue (e.g. not easy to find them in market)

☐ Other (please specify)

……..

119. What are your aspirations/ concerns towards developing this area in terms of housing?

120. Can you think of anything else you would like to add?

Thank you very much for taking the time to complete this survey. Your feedback is valued and very much appreciated!

A.3. The questionnaire for Cairo residents (Arabic version)

ROYAL HOLLOWAY UNIVERSITY OF LONDON

يرجى من فضلك أكمل مسح الإسكان بالقاهرة الكبرى.
شكراً جزيلاً على وقتك.

معلومات أساسية

1. الاسم (اختياري):
.....

اسم المنطقة:
.....

2. النوع:
- ☐ ذكر
- ☐ انثى

3. الفئة العمرية
- ☐ أقل من 18
- ☐ 18 - 29
- ☐ 30 - 44
- ☐ 45 - 60
- ☐ أكبر من 60

4. الحالة الاجتماعية:
- ☐ أعزب
- ☐ متزوج (الزوجان يقيمان معا)
- ☐ متزوج (الزوجان لا يقيمان معاً)
- ☐ أرمل
- ☐ مطلق
- ☐ منفصل (ليس مطلق رسميا)

5. مستوى التعليم:
- ☐ أمي
- ☐ تعليم أساسي
- ☐ تعليم ثانوي
- ☐ معهد
- ☐ دبلوم
- ☐ تعليم جامعي
- ☐ دراسات عليا

6. هل تقيم/ تعمل في القاهرة الكبرى؟
- ☐ أقيم
- ☐ تعمل
- ☐ أقيم وأعمل
- ☐ زيارة

7. كم عدد السنين التي اقامتها في القاهرة الكبرى؟
- ☐ أقل من خمس سنوات
- ☐ من 5 – 10 سنوات
- ☐ من 11 – 15 سنة
- ☐ من 16 – 20 سنة
- ☐ أكثر من 20 سنة
- ☐ عمري بأكمله

8. "إذا لم تكن الاجابة عمرك بأكمله" أين كنت تقيم قبل ذلك؟
اسم المحافظة
.....
اسم الحي
.....

9. "إذا كانت الاجابة عمرك بأكمله" أين كان أجدادك قد أقاموا؟
اسم المحافظة
.....
اسم الحي
.....

معلومات عن المنزل

فيما يلي، أي إشارة عن المنزل تعني "المنزل العادي" المعرف بانه الوحدة السكنية التي يعيش فيها افراد الاسرة والأقارب.

10. كم عدد أفراد عائلتك؟

بالغ: ..... طفل (أقل من 18 سنة): .....

11. كم عدد الغرف في منزلك؟ (من فضلك لا تدرج الممرات، الشرفات أو أي غرف للتخزين)

☐ غرف نوم ☐ غرف المعيشة ☐ الحمام ☐ المطبخ

12. كم عدد العقارات التي تمتلكها او تؤجرها في ....؟

	القاهرة الكبرى	المدن الجديدة التابعة للقاهرة الكبرى	داخل مصر (خارج نطاق القاهرة الكبرى)	خارج مصر
تمليك				
ايجار				

13. هل لديك أي من هذه الأجهزة/ الأشياء داخل منزلك؟

- ☐ بوتاجاز/ موقد
- ☐ ثلاجة
- ☐ مروحة
- ☐ تكييف
- ☐ تليفزيون/ تلفاز
- ☐ ألواح شمسية لتوليد الكهرباء الخاصة بك
- ☐ خزان لإعادة تدوير المياه
- ☐ تليفون أرضي/ محمول
- ☐ عجلة/ دراجة
- ☐ موتوسيكل/ دراجة بخارية
- ☐ سيارة
- ☐ زراعة بعض المحاصيل الغذائية الخاصة بك
- ☐ انترنت
- ☐ كمبيوتر/ لابتوب

معلومات اقتصادية

14. حالة العمل

- ☐ تعمل
- ☐ لا تعمل (اذهب الي السؤال رقم 21)
- ☐ طالب (اذهب الي السؤال رقم 21)
- ☐ طالب وتعمل
- ☐ متقاعد/ على المعاش

15. نوع العمل

- ☐ قطاع حكومي
- ☐ قطاع خاص
- ☐ قطاع عمل غير رسمي (عمالة غير منتظمة)
- ☐ مزيج مما سبق/ أخر (برجاء الايضاح بالأسفل)

.....

16. ما نوع عقد العمل لديك؟

- ☐ عقد
- ☐ أساس يومي
- ☐ على أساس الطلب (بالطلب)
- ☐ مزيج مما سبق/ أخر (برجاء الايضاح بالأسفل)

.....

17. ما مدة عقد عملك الحالي؟

☐ عام

☐ شهر

18. ما عدد ساعات عملك اليومية؟ (بالإشارة الي اخر أسبوع)

☐ في اليوم

19. ما عدد أيام عملك في الأسبوع؟ (بالإشارة الي اخر أسبوع)

☐ في الاسبوع

20. متي تستلم راتبك في العادة؟

- ☐ يومي
- ☐ اسبوعي
- ☐ شهري
- ☐ متغير/ بين الحين والاخر
- ☐ مزيج مما سبق/ أخر (برجاء الايضاح بالأسفل)

.....

21. ما هو اجمالي دخل اسرتك الشهري؟ (اختياري)

☐ في الشهر

هل لديك دخل غير المال (مزروعات/ سكن مجاني/ منح...الخ)

☐ نعم ☐ لا

" إذا كان الجواب نعم" (برجاء الايضاح بالأسفل)

.....

معلومات عن المواصلات والتنقل

22. ما هي وسائل المواصلات التي تقوم باستخدامها
(اختر واحد أو أكثر)

- ☐ مشي/ سيراً على الأقدام
- ☐ ركوب الدراجات
- ☐ وسائل مواصلات عامة (اتوبيس، مينى باص)
- ☐ وسائل مواصلات خاصة (ميكروباص، تاكسي، توك توك)
- ☐ ملكية شخصية (سيارة، دراجة بخارية)
- ☐ المترو والترام
- ☐ غير ما سبق ذكره (برجاء الايضاح بالأسفل)

.....

23. كم من الوقت تستغرق للوصول الي العمل او المدرسة؟

- ☐ حتى 15 دقيقة
- ☐ من 16 – 30 دقيقة
- ☐ من 31 – 45 دقيقة
- ☐ من 46 – 60 دقيقة
- ☐ أكثر من ساعة
- ☐ متغير (برجاء الايضاح بالأسفل)

.....

معلومات عن الأرض والسكن

24. ما هو نوع السكن الخاص بك؟

- ☐ كوخ/ كشك
- ☐ غرفة
- ☐ شقة
- ☐ منزل
- ☐ اخرى (برجاء الايضاح بالأسفل)

.....

25. هل تشارك جيرانك في استخدام وسائل الراحة (المرافق، الحمام)؟

- ☐ نعم
- ☐ لا

"إذا كان الجواب نعم" (برجاء الايضاح بالأسفل)

.....
.....
.....

26. ما سبب اختيار اقامتك في هذه المنطقة؟
(اختر واحد أو أكثر)

- ☐ تم نقلي عن طريق الحكومة (سكن بديل)
- ☐ إقامة افراد من عائلتي واقاربي في هذه المنطقة
- ☐ رخص السعر
- ☐ قرب مكان عملي
- ☐ اتساع وكبر مساحة السكن
- ☐ مستوى المعيشة أفضل
- ☐ سهولة الحصول على السكن
- ☐ انتقلت الي هنا بسبب الجواز/ الارتباط
- ☐ أخرى (برجاء الايضاح بالأسفل)

.....

27. ما هي نوعية اقامتك في وحدتك العقارية؟

- ☐ تمليك (تم دفع سعرها بالكامل) (اذهب الي السؤال رقم 28)
- ☐ تمليك بمساعدة قرض او رهن عقاري (اذهب الي السؤال رقم 28)
- ☐ إقامة مجانية (يتضمن إقامة مجانية في وحدة سكنية ملك أحد الأقارب او الأصدقاء) (اذهب الي السؤال رقم 29)
- ☐ قانون ايجار قديم (اذهب الي السؤال رقم 29)
- ☐ قانون ايجار جديد (اذهب الي السؤال رقم 29)
- ☐ وضع يد (اذهب الي السؤال رقم 29)
- ☐ أخرى (برجاء الايضاح بالأسفل)

.....

28. "إذا كان الجواب تمليك في السؤال رقم 27"، ما نوع الملكية؟

- ☐ مسجل تسجيل رسمي كامل (شهر عقاري)
- ☐ سند قانوني غير كامل التسجيل (عقد بيع عند احد المحامين)
- ☐ إيصال شراء (عقد بيع ابتدائي)
- ☐ ملكية غير قانونية
- ☐ أخرى (برجاء الايضاح بالأسفل)

.....

29. هل تمتلك أكثر من وحدة عقارية؟

- ☐ نعم
- ☐ لا

"إذا كان الجواب نعم في السؤال رقم 29"، كم وحدة عقارية تمتلكها؟

.....

30. "إذا كان الجواب نعم في السؤال رقم 29"، ما سبب امتلاك أكثر من وحدة عقارية؟ (اختر واحد أو أكثر)

- ☐ استثمار (للبيع مستقبلا)
- ☐ دخل شهري (للايجار)
- ☐ استخدام عائلي مستقبلا (لأحد افراد اسرتك)
- ☐ اخري (برجاء الايضاح بالأسفل)

.....

32. تم الحصول على قطعة الأرض من خلال ...؟

- ☐ وضع اليد
- ☐ من خلال الحكومة/ المحافظة
- ☐ من السوق (خاص)
- ☐ ميراث/ هبة
- ☐ اخري (برجاء الايضاح بالأسفل)

.....

34. تم بناء العقار من خلال ...؟

- ☐ طرق قانونية كاملة (مثلاً امتلاك رخصة بناء وطبقاً للمخطط العمراني وللاستعمال المرخص له)
- ☐ طرق شبه قانونية
- ☐ طرق غير قانونية
- ☐ اخري (برجاء الايضاح بالأسفل)

.....

36. "إذا كان الجواب بنفسي في السؤال رقم 35"، هل قمت باستشارة أي من المتخصصين من ناحية تصميم العقار او سلامة البناء؟

- ☐ نعم
- ☐ لا

"إذا كان الجواب نعم في السؤال رقم 36"، من هم؟

.....

38. هل تعتبر هذه المنطقة ...؟

- ☐ مخططة او مصممة جيداً
- ☐ مخططة بشكل معتدل
- ☐ مخططة بشكل سيء
- ☐ غير مخططة على الاطلاق/ عشوائية
- ☐ لا أعرف

40. هل تعرف ما هي حقوقك وواجباتك تجاه منطقتك؟

- ☐ نعم
- ☐ لا
- ☐ ربما (غير متأكد بشكل كامل)

31. "إذا كان الجواب ايجار جديد او قديم في السؤال رقم 27"، من هو مالك الوحدة العقارية؟

- ☐ ملك الدولة (الأوقاف، وزارة الإسكان، المحافظة...)
- ☐ خاص (ملك وكالة او شركة عقارية....)
- ☐ عائلي، أقارب، أصدقاء
- ☐ شخص اعتباري اخر (أحد الملاك)

33. هل الأرض مرخص لها بالبناء؟

- ☐ نعم
- ☐ لا

35. من هو الجهة او الشخص الذي قام بالبناء؟

- ☐ بنفسي (اذهب الي السؤال رقم 36)
- ☐ مقاول (اذهب الي السؤال رقم 37)
- ☐ الحكومة (وزارة الإسكان/ المحافظة/...) (اذهب الي السؤال رقم 37)
- ☐ القطاع الخاص (شركات عقارية / مكاتب هندسية/...) (اذهب الي السؤال رقم 37)
- ☐ اخري (برجاء الايضاح بالأسفل) (اذهب الي السؤال رقم 37)

.....

37. كيف تصف شعورك بالعيش في هذه المنطقة؟

- ☐ راض جداً
- ☐ راض
- ☐ غير مبال/ وسط
- ☐ غير راض
- ☐ غير راض بالمرة

39. هل لديك شعور بالانتماء تجاه هذه المنطقة التي تعيش فيها؟

- ☐ نعم دائماً
- ☐ أحيانا
- ☐ لا على الاطلاق
- ☐ لا أعرف

41. في رأيك ما هي الامكانات او الفرص المتاحة في هذه المنطقة؟ (اختر واحد أو أكثر)

- ☐ تاريخي (بها كثير من المناطق الاثرية)
- ☐ بها معالم مميزة
- ☐ مركز أو نشاط اقتصادي
- ☐ معالم دينية أو روحية
- ☐ اخري (برجاء الايضاح بالأسفل)

.....

42. ما هي أكثر المشاكل الملفتة في هذه المنطقة من وجهة نظرك؟ (اختر واحد أو أكثر)

- ☐ ظروف المعيشة
- ☐ انعدام الأمن من ملكية الأرض أو السكن (تنازع الملكية)
- ☐ مخالفات البناء
- ☐ الفقر ومحدودية الدخل
- ☐ الازدحام السكني
- ☐ قلة الخدمات
- ☐ مشاكل بيئية
- ☐ اخري (برجاء الإيضاح بالأسفل)

.....

43. في رأيك هل تعاني هذه المنطقة من مشكلة التلوث البصري؟

- ☐ نعم
- ☐ لا
- ☐ لا أعرف

"إذا كان الجواب نعم في السؤال رقم 43"، ما هي الأسباب الرئيسية من وجهة نظرك؟ (اختر واحد أو أكثر)

- ☐ صفوف من المحلات تحجب شكل المباني
- ☐ الكتابة على الجدران وتخريب المباني
- ☐ تدهور حالة المباني القائمة
- ☐ لافتات اعلان غير لائقة
- ☐ ازدحام الشوارع والأرصفة بالباعة الجائلين
- ☐ عدم تناسق المباني معاً (خط افق مشوه)
- ☐ ضيق ممرات المشاة
- ☐ لا أعرف
- ☐ اخري (برجاء الإيضاح) .....

44. ما هي المشاكل الرئيسية الخاصة بإدارة الأراضي في منطقتك، ان وجدت؟ (اختر واحد أو أكثر)

- ☐ تنازع ملكية على الأراضي
- ☐ بيروقراطية (روتين) تسجيل ملكية الأراضي
- ☐ عدم ترسيم واضح بين حدود الأراضي
- ☐ ضعف سجل يحتفظ بتسجيل ملكية الأراضي
- ☐ العشوائيات ووضع اليد على الأراضي
- ☐ انعدام امن حيازة الأراضي
- ☐ نقص خرائط ومخططات وعلامات حيازة الأراضي
- ☐ اخري (برجاء الإيضاح بالأسفل)

.....

45. من هو المسئول عن تلك المشاكل من وجهة نظرك؟ (اختر واحد أو أكثر)

- ☐ الحكومة المركزية
- ☐ المحافظة/ الإدارة المحلية
- ☐ السكان المحليين
- ☐ المستثمرين ورجال الأعمال
- ☐ اخري (برجاء الإيضاح بالأسفل)

.....

ولماذا؟

.....

.....

46. هل تعتقد ان أسعار العقارات في القاهرة الكبرى مبالغ فيها؟

- ☐ نعم
- ☐ لا
- ☐ لا أعرف

47. من وجهة نظرك ما هو افضل نهج (طريق) للدولة لتوفير السكن لمحدودي الدخل؟

- ☐ طريق التأجير
- ☐ طريق الملكية
- ☐ طريق الملكية والتأجير
- ☐ لا أعرف

48. هل تشارك عادة بالتصويت في الانتخابات؟

- ☐ نعم
- ☐ لا

"إذا كان الجواب نعم في السؤال رقم 48"، هل تكون مشاركتك في الانتخابات الرئاسية ام المحلية او كلاهما؟

.....

متي كانت أخر مرة قمت فيها بالتصويت؟

.....

49. هل تعرف أسماء هؤلاء الأشخاص؟ (من فضلك اكتب الأسماء)

رئيس الجمهورية .....

رئيس الوزراء .....

وزير الإسكان .....

وزير وزارة الدولة للتطوير الحضري والعشوائيات .....

محافظ القاهرة .....

محافظ الجيزة .....

محافظ القليوبية .....

نائب البرلمان عن الحي التي تعيش فيها .....

رئيس حي المنطقة التي تعيش فيها .....

صفحة 5 |

"إذا كنت تقيم في القاهرة الكبرى" فأملئ هذا القطاع، أما إذا كنت تقيم في المدن الجديدة فاذهب الي سؤال رقم 56

50. من وجهة نظرك هل المدن الجديدة المحيطة بالقاهرة الكبرى أماكن جيدة للعيش فيها؟

☐ نعم
☐ لا
☐ لا أعرف

51. هل قمت بزيارة او اقمت في أي من المدن الجديدة المحيطة بالقاهرة الكبرى؟

☐ نعم
☐ لا

52. "إذا كان الجواب نعم في السؤال رقم 50"، ماذا يمنعك من الانتقال للعيش في أي من المدن الجديدة؟

☐ اعتبارات مالية او اقتصادية
☐ مشاكل التنقل والمواصلات
☐ مشاكل وظيفية (مثلاً بعد العمل عن السكن)
☐ قلة الخدمات ميسورة التكلفة (تعليم، صحة، مرافق)
☐ ارتباطات عائلية
☐ مشاكل أمنية (الخوف من الانتقال الي منطقة غير مألوفة)
☐ اخري (برجاء الإيضاح بالأسفل)

.....

53. "إذا كان الجواب لا في السؤال رقم 50"، ما هو سبب رفضك للعيش في أي من المدن الجديدة؟

☐ لقد عشت هنا طوال حياتي
☐ سأفقد سبل العيش (الرزق)
☐ لا أستطيع دفع الأقساط الشهرية للوحدة
☐ بعد مكان العمل عن المدن الجديدة
☐ ارتفاع تكاليف الصيانة في المنزل الجديد
☐ اخري (برجاء الإيضاح بالأسفل)

.....

54. إذا قامت الحكومة بتوفير سكن بسعر مناسب هل تقبل الانتقال الي أي من المدن الجديدة المحيطة بالقاهرة؟

☐ نعم
☐ لا
☐ ربما

(برجاء الإيضاح بالأسفل)

.....

55. "إذا كان الجواب نعم في السؤال رقم 54"، ما الذي يجعلك تنتقل الي هناك؟ (اختر واحد أو أكثر)

☐ امتلاك منزل/ وحدة سكنية
☐ مساحة السكن كافية للعيش
☐ تحسن الخدمات (مرافق، صحية، تعليمية)
☐ تحسن مستوي المعيشة
☐ اخري (برجاء الإيضاح بالأسفل)

.....

"إذا كنت تقيم في أي من المدن الجديدة المحيطة بالقاهرة الكبرى" " فأملئ هذا القطاع، واما فاذهب الي السؤال رقم 60

56. من وجهة نظرك هل تعتبر المدن الجديدة أماكن جيدة للعيش فيها؟

☐ نعم
☐ لا
☐ لا أعرف

57. كم تبلغ مدة إقامتك هنا؟

☐ سنة

☐ شهر

58. ما الذي جعلك تنتقل الي العيش هنا؟ (اختر واحد أو أكثر)

☐ امتلاك منزل/ وحدة سكنية
☐ مساحة السكن كافية للعيش
☐ تحسن الخدمات (مرافق، صحية، تعليمية)
☐ تحسن مستوي المعيشة
☐ اخري (برجاء الإيضاح بالأسفل)

.....

59. هل ما زلت تعتبر ان قرار انتقالك للعيش هنا كان صحيحاً؟

☐ نعم
☐ لا
☐ ربما

ولماذا؟ (برجاء الإيضاح بالأسفل)

.....
.....
.....
.....
.....

معلومات عن البنية التحتية (المرافق)

60. ما هي أوجه القصور في البنية التحتية، ان وجدت؟
(اختر واحد أو أكثر)

- ☐ مشاكل في المواصلات والمرور
- ☐ تدهور حالة الشوارع والارصفة
- ☐ شبكة الصرف الصحي
- ☐ القمامة والمخلفات الصلبة
- ☐ شبكة الكهرباء والتليفونات والانترنت
- ☐ غياب نظام الحريق والطفايات
- ☐ شبكة المياه
- ☐ مشكلة المياه الجوفية
- ☐ اخري (برجاء الإيضاح بالأسفل)

.....

61. هل لديك نظام شرب للمياه داخل المنزل ام خارجه؟

- ☐ داخل المنزل (اذهب الي سؤال رقم 62)
- ☐ خارج المنزل (اذهب الي سؤال رقم 63)
- ☐ غير متوفر (ترفض الإجابة) (اذهب الي سؤال رقم 65)

62. "إذا كان الجواب داخل المنزل في السؤال رقم 61"، ما هو المصدر الرئيسي للمياه داخل منزلك؟

- ☐ صنبور / حنفية
- ☐ طلمبة / مضخة اليد
- ☐ غير متوفر (ترفض الإجابة)
- ☐ اخري (برجاء الإيضاح بالأسفل)

.....

63. "إذا كان الجواب خارج المنزل في السؤال رقم 61"، ما هو المصدر الرئيسي للمياه خارج منزلك؟

- ☐ صنبور عمومي/ حنفية عمومية (اذهب الي سؤال رقم 65)
- ☐ طلمبة/ مضخة اليد (اذهب الي سؤال رقم 65)
- ☐ نهر / ترعة/ بحيرة (اذهب الي سؤال رقم 65)
- ☐ خزان مياه حكومي (اذهب الي سؤال رقم 64)
- ☐ خزان مياه خاص (اذهب الي سؤال رقم 64)
- ☐ غير متوفر (ترفض الإجابة) (اذهب الي سؤال رقم 65)
- ☐ اخري (برجاء الإيضاح بالأسفل)

.....

64. "إذا كان الجواب خزان مياه حكومي أو خاص في السؤال رقم 63"، كم تدفع لفاتورة المياه شهرياً؟

- ☐ جنيه مصري
- ☐ غير متوفر (ترفض الإجابة)
- ☐ اخري (برجاء الإيضاح بالأسفل)

.....

65. "إذا كان الجواب خارج المنزل في السؤال رقم 61"، هل انت على استعداد للدفع مقابل توصيل منزلك بشبكة مياه نظيفة؟

- ☐ نعم
- ☐ لا
- ☐ ربما

66. هل لديك كهرباء بالمنزل؟

- ☐ نعم (اذهب الي سؤال رقم 67)
- ☐ لا (اذهب الي سؤال رقم 71)

67. "إذا كان الجواب نعم في السؤال رقم 66"، هل لديك عداد كهرباء؟

- ☐ نعم (اذهب الي سؤال رقم 68)
- ☐ لا (اذهب الي سؤال رقم 69)
- ☐ غير متوفر (ترفض الإجابة)

68. "إذا كان الجواب نعم في السؤال رقم 67"، كيف تدفع فاتورة الكهرباء؟

- ☐ شركة الكهرباء/ المحصل
- ☐ صاحب العقار
- ☐ لا تدفع في أي مكان
- ☐ غير متوفر (ترفض الإجابة)

69. "إذا كان الجواب لا في السؤال رقم 66"، كيف تحصل على كهرباء؟

- ☐ من أحد جيراني
- ☐ من صاحب العقار
- ☐ توصيل غير شرعي على شبكة الكهرباء
- ☐ غير متوفر (ترفض الإجابة)

70. "إذا كان الجواب نعم في السؤال رقم 66، ولكن لا في السؤال رقم 67"، كيف تدفع فاتورة الكهرباء؟

- ☐ لأحد جيراني
- ☐ لصاحب العقار

71. هل لديك أي مصادر مختلفة بديلة عن الكهرباء؟

- ☐ نعم
- ☐ لا

صفحة 7 /

☐ لا أدفع
☐ اخري (برجاء الإيضاح بالأسفل)

(برجاء الإيضاح بالأسفل)
.....
.....

72. هل بيتك متصل بنظام صرف صحي في هذه المنطقة؟ هل يوجد شبكة صرف صحي؟
☐ نعم (اذهب الي سؤال رقم 73)
☐ لا (اذهب الي سؤال رقم 75)

73. "إذا كان الجواب نعم في السؤال رقم 72"، ما هي حالة شبكة الصرف الصحي؟
☐ جيدة جداً
☐ جيدة
☐ متوسطة
☐ سيئة
☐ سيئة جداً
☐ لا أعرف

74. في اخر خمس أعوام، هل شبكة الصرف الصحي ...؟
☐ تحسنت
☐ ظلت كما هي في السابق
☐ ساءت
☐ لا أعرف

75. أين تتخلص من القمامة الخاصة بك؟ (اختر واحد أو أكثر)
☐ لا يوجد مكان محدد (اذهب الي سؤال رقم 77)
☐ صندوق القمامة العمومي (اذهب الي سؤال رقم 76)
☐ ارض فضاء (اذهب الي سؤال رقم 77)
☐ عامل نظافة يجمعها من المنزل (اذهب الي سؤال رقم 77)
☐ اخري (برجاء الإيضاح) .....

76. "إذا كان الجواب صندوق القمامة العمومي في السؤال رقم 75"، ما هي أوقات تجمعها/ أخذها عادة؟
☐ كل يوم
☐ كل يومين
☐ مرة في الاسبوع
☐ مرة كل اسبوعين
☐ مرة في الشهر
☐ متغير/ غير محدد
☐ لا أعرف
☐ غير متوفر (ترفض الإجابة)

77. هل تقوم بفرز النفايات الخاصة بك الي ...؟

	نعم	لا
تدوير مخلفات (زجاج، ورق، بلاستيك، معدن)	☐	☐
مخلفات عضوية (بقايا طعام يومي)	☐	☐
مخلفات غير قابلة للتدوير	☐	☐

(برجاء الإيضاح أكثر ان اردت) .....

78. من يقوم بتجميع القمامة؟ (اختر واحد أو أكثر)
☐ الهيئة العامة للنظافة والتجميل بالقاهرة الكبرى (الحكومة)
☐ شركات نظافة خاصة من خلال الحكومة
☐ مجموعات نظافة (الزبالين)
☐ لا أعرف
☐ غير متوفر (ترفض الإجابة)

79. هل قمت بتقديم شكوى بخصوص المرافق في هذه المنطقة؟
☐ نعم (اذهب الي سؤال رقم 80)
☐ لا (اذهب الي سؤال رقم 81)

80. لمن قمت بتقديم الشكوى؟
.....

هل حصلت على أي رد؟
.....

معلومات عن الخدمات

81. هل يوجد أي خدمة تعليمية (مدارس) في هذه المنطقة؟
☐ نعم (اذهب الي سؤال رقم 82)
☐ لا (اذهب الي سؤال رقم 83)

82. "إذا كان الجواب نعم في السؤال رقم 81"، ما هي نوعية هذه المدارس؟ (اختر واحد أو أكثر)
☐ حكومي
☐ خاص (محلي)
☐ خاص (مدارس دولية)
☐ لا اعرف
☐ اخري (برجاء الإيضاح) .....

صفحة / 8

83. هل هناك أي خدمة صحية هنا؟

☐ نعم

☐ لا

84. في حالة المرض أين تذهب انت أو أحد أفراد عائلتك؟

☐ مستشفيات حكومية

☐ عيادات خاصة

☐ دواء من الصيدلية

☐ لا أخذ أي دواء

☐ غير متوفر (ترفض الإجابة)

☐ اخري (برجاء الإيضاح بالأسفل)

.....

سياسة الإسكان والمشاركة

85. هل تعلم/ تسمع عن حقك في السكن؟

☐ نعم

☐ لا

"إذا كان الجواب نعم" (برجاء الإيضاح بالأسفل)

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.....

.....

86. هل تعلم حقوقك او واجباتك من حيث الإسكان؟

☐ نعم

☐ لا

"إذا كان الجواب نعم" (برجاء الإيضاح بالأسفل)

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87. من هم الجهات (منظمات) او الأشخاص التي تفكر بها عندما يتعلق الامر بتوفير السكن؟

.....

.....

.....

.....

88. هل تعلم كيف تحصل على وحدة سكنية مدعمة من الحكومة؟

☐ نعم

☐ لا

"إذا كان الجواب لا" (برجاء إيضاح السبب)

.....

89. هل قمت بالقراءة او البحث عن ...؟ (اختر واحد أو أكثر)

☐ سياسة الإسكان (حقوق وواجبات)

☐ قوانين وأنظمة البناء

☐ الحصول على وحدة/ أرض من الحكومة

☐ تسجيل رسمي لوحدة سكنية أو أرض

☐ التنمية المستدامة للحضر

☐ المشاركة الشعبية

☐ مشاريع الاسكان

90. هل لديك أي تجربة مع الحي او المحافظة بخصوص الإسكان؟

☐ نعم (اذهب الي سؤال رقم 91)

☐ لا (اذهب الي سؤال رقم 93)

91. "إذا كان الجواب نعم"، ماذا كانت تجربتك حول؟
(اختر واحد أو أكثر)

☐ تطوير الأحياء

☐ الحصول على رخصة

☐ الحصول على أرض/ وحدة

☐ حل النزاعات

☐ خدمات

☐ مرافق (طرق، مياه، طرق، صرف صحي، غاز، ...)

☐ اخري (برجاء الإيضاح) .....

92. كيف كانت تجربتك؟

☐ راض جداً

☐ راض

☐ غير مبال/ وسط

☐ غير راض

☐ غير راض على الاطلاق

93. هل تعتقد ان هناك مشكلة بخصوص الإسكان أو سياسة الإسكان في القاهرة الكبرى؟

☐ نعم (اذهب الي سؤال رقم 94)

☐ لا (اذهب الي سؤال رقم 95)

☐ لا أعلم (اذهب الي سؤال رقم 95)

94. "إذا كان الجواب نعم"، من وجهة نظرك ما هي مشكلة الإسكان؟
(اختر واحد أو أكثر)

☐ عدد كبير من الوحدات الشاغرة

☐ وجود معروض كبير من الوحدات

☐ المعروض من الوحدات أقل من الطلب

☐ الوحدات المعروضة في السوق لا تتناسب مع شرائح المجتمع اقتصادياً

☐ المضاربة في العقارات – أسعارها غالية

☐ مشاكل في سياسة الاسكان

☐ سوء منهج التنمية الشاملة (نقص الخدمات والمرافق والمواصلات ووظائف العمل)

قسم المشاركة

95. هل سمعت من قبل المشاركة الشعبية من حيث اتخاذ القرار؟

☐ نعم

☐ لا

96. أي من مجموعات أصحاب المصلحة تعتبر نفسك تنتمي الي ... ؟
(اختر واحد أو أكثر)

☐ السلطة المحلية/ الحكومة

☐ المجتمع/ مجموعة عمل

☐ مؤجر

☐ خبير / استشاري

☐ مالك

☐ موظف

☐ مستثمر / رجل أعمال

☐ اخري (برجاء الإيضاح بالأسفل)

.....

97. هل شاركت مع السكان المحليين (الجيران)/ منظمات غير حكومية/ السلطة المحلية لتحسين وتطوير منطقتك/ القاهرة؟

☐ نعم (اذهب الي سؤال رقم 98)

☐ لا (اذهب الي سؤال رقم 99)

98. "إذا كان الجواب نعم في السؤال رقم 97"، ماذا كانت مهمتك؟
(اختر واحد أو أكثر)

☐ عضو لجنة

☐ عمل اداري أو كتابي

☐ جمع أموال

☐ منظم أحداث

☐ توفير تدريب

☐ اخري (برجاء الإيضاح بالأسفل)

.....

99. "إذا كان الجواب لا في السؤال رقم 97"، هل انت على استعداد للتطوع مستقبلاً؟

☐ نعم (اذهب الي سؤال رقم 101)

☐ لا (اذهب الي سؤال رقم 100)

☐ لا أعلم

100. "إذا كان الجواب لا في السؤال رقم 100"، (برجاء الايضاح بالأسفل)

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.....

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101. هل حضرت من قبل أي اجتماع/ ندوة خاصة بالإسكان او بمشروع اسكاني؟

☐ نعم

☐ لا

103. في رأيك من يشارك بفعالية في تطوير هذه المنطقة؟
(اختر واحد أو أكثر)

☐ أحزاب سياسية

☐ جماعات دينية

☐ الملاك

☐ السكان المحليين

☐ المنظمات غير الحكومية

☐ الموظفين

☐ الحي/ المحافظة/ الحكومة المركزية

☐ اخري (برجاء الايضاح بالأسفل)

.....

105. هل تعتقد ان اهتمامات (مصالح) جميع أصحاب المصلحة على نفس القدر من الأهمية؟

☐ نعم

☐ لا

☐ لا أعلم (اذهب الي سؤال رقم 106)

ولماذا؟

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.....

.....

107. لماذا تريد ان تنخرط في تطوير منطقتك؟
(اختر واحد أو أكثر)

☐ لتحسين الوضع القائم

☐ للحفاظ على نوعية الحياة

☐ للنظر في مستقبل المنطقة

☐ لزيادة الشعور بالانتماء

☐ للمشاركة في اتخاذ قرارات تطوير المنطقة

☐ كنوع من ممارسة الديموقراطية

☐ للتعرف على احتياجات واهتمامات المنطقة

☐ اخري (برجاء الايضاح بالأسفل)

.....

102. هل يمكنك ذكر أي المنظمات الغير الحكومية الفعالة في تطوير هذه المنطقة؟

.....

.....

104. ماذا رأيك في موقف الحكومة تجاه المشاركة الشعبية؟

☐ مشجع جداً

☐ مشجع

☐ غير مبال/ وسط

☐ غير مشجع

☐ غير مشجع على الاطلاق

☐ اخري (برجاء الايضاح بالأسفل)

.....

106. هل فكرت في اتخاذ أي من الاجراءات التالية لتخفيف من المشاكل المحلية الموجودة بمنطقتك؟ (اختر واحد أو أكثر)

☐ لا شيء

☐ ارسال شكوى الي الحي أو المحافظة

☐ انضم الي جماعة العمل

☐ الاتصال بالوزارة المختصة

☐ فكرت فقط بها

☐ القضاء

☐ اخري (برجاء الايضاح بالأسفل)

.....

108. كيف تصف موقف الحكومة تجاه الإسكان؟

☐مشجع

☐ غير مبال/ وسط

☐ غير مشجع

☐ غير مشجع على الاطلاق

☐ لا أعلم

العمران المستدام

109. هل سمعت او قرئت من قبل عن التنمية الحضرية المستدامة؟

☐ نعم

☐ لا

"إذا كان الجواب نعم"، (برجاء الإيضاح بالأسفل)

.....

110. هل تعتقد ان هذه المنطقة مطورة بشكل يتناسب مع التنمية المستدامة؟

☐ نعم

☐ لا

☐ لا أعرف (اذهب الي سؤال رقم 111)

111. ما نوع المواد والخامات المستخدمة في بناء وحدتك؟ (اختر واحد أو أكثر)

☐ حديد وخرسانة (حديد مسلح)

☐ حوائط حاملة

☐ خشب/ صفيح

☐ اخري (برجاء الإيضاح بالأسفل)

.....

112. ما هو الطراز أو نوع البناء الذي تريد العيش فيه؟

☐ طراز معماري حديث (اوربي المظهر غالباً مبني بمواد حديد وخرسانه)

☐ طراز معماري محلي (عمارة إسلامية او صحراوية مبني بمواد محلية طين وحجارة)

☐ لا أعرف

113. هل فكرت يوما في العيش في مسكن مبني بمواد محلية ومصمم بطريقة ملائمة للبيئة المحيطة (عمارة إسلامية او صحراوية مثلاً)؟

☐ نعم (اذهب الي سؤال رقم 115)

☐ لا (اذهب الي سؤال رقم 114)

☐ لا أعرف (اذهب الي سؤال رقم 114)

114. "إذا كان الجواب لا أو لا أعرف في السؤال رقم 113"، ما هو سبب رفضك؟

.....

.....

.....

.....

115. هل لديك ألواح شمسية، خزانات لتدوير المياه في عقارك؟

☐نعم (اذهب الي سؤال رقم 116)

☐ لا (اذهب الي سؤال رقم 117)

116. "إذا كان الجواب نعم في السؤال رقم 115"، ماذا كانت تجربتك؟

.....

.....

117. "إذا كان الجواب لا في السؤال رقم 115"، هل تفكر في تركيب ألواح شمسية وخزانات لتدوير المياه في عقارك؟ (للتوفير في الفواتير وملائمة أكثر للبيئة)

☐ نعم (اذهب الي سؤال رقم 119)

☐ لا (اذهب الي سؤال رقم 118)

☐ لا أعرف (اذهب الي سؤال رقم 118)

118. "إذا كان الجواب لا أو لا أعرف في السؤال رقم 117"، ما هو سبب رفضك؟ (اختر واحد أو أكثر)

☐ مشاكل اقتصادية/ مالية (ارتفاع أسعارها)

☐ مشاكل تقنية وفنية (عدم وجود معرفة بطريقة تركيبها او استخدامها)

☐ مشاكل جمالية (شكلهم ليس جميلا فوق المنزل)

☐ مشاكل تسويقية (ليس سهلا العثور عليهم في السوق المصري)

☐ اخري (برجاء الإيضاح بالأسفل)

.....

119. ما هي اهتماماتك/ طموحاتك نحو تطوير منطقتك بخصوص الإسكان؟

.....

.....

.....

.....

118. هل لديك اي شيء آخر تود أن تضيف؟

.....

.....

.....

.....

شكراً جزيلاً لأخذ الوقت لاستكمال هذا المسح. ملاحظاتك واجاباتك مقدرة تقدير كامل في هذه الدراسة. احترامي الشديد لشخصكم الكريم.

A.4. The interviewees' list of Cairo's housing stakeholders

#	Category	Code	Name	Position	Date
1	Official	O1	A S	*Advisor* – General Organisation for Physical Planning (GOPP)	21/04/2015
2		O2	M E	*Advisor* – National & Building, National Research Centre	27/04/2015
3		O3	A E	*Chairman* – Ministry of Housing, Utilities & Urban Communities, General Organisation for Physical Planning (GOPP)	29/04/2015
4		O4	M E	*Planner* – Informal Settlement Development Facility	03/05/2015
5		O5	H A	*Planner* – Informal Settlement Development Facility	03/05/2015
6		O6	Y A	*Consultant* – Ministry of Local Development	07/05/2015
7		O7	M T	*Planner* – General Organisation for Physical Planning (GOPP)	07/05/2015
8		O8	M E	*Technical Engineer*– General Organisation for Physical Planning (GOPP)	11/05/2015
9		O9	S M	*Registry Clerk* – Ministry of Justice, Real Estate Publicity Department (REPD)	19/05/2015
10		O10	B E	*Technical Adviser to Minister* – Ministry of Housing, Utilities & Urban Communities	21/05/2015
11		011	S I	*Engineer* – Cairo Governorate (Local Authority)	03/06/2015
12		O12	F A	*Engineer* – Cairo Governorate (Local Authority)	03/06/2015
13		O13	F S	Lawyer - Ministry of Housing, Utilities & Urban Communities, New Urban Communities Authority (NUCA), Legal Affair Department	09/06/2015
14		O14	W A	*Deputy to Minister* – Ministry of Housing, Utilities & Urban Communities, New Urban Communities Authority (NUCA)	09/06/2015
15		O15	O F	*Planner* – Informal Settlement Development Facility	18/06/2015
16		O16	E E	*Architect* – General Organisation for Physical Planning (GOPP)	28/06/2015
17		O17	M A	*Architect* – Informal Settlement Development Facility	08/07/2015
18		O18	A T	*Technical Engineer* – General Organisation for Physical Planning (GOPP)	19/08/2015
19	NGOs	N1	K W	MED-ENEC Team Leader – Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ)	20/04/2015
20		N2	R S	Researcher - Centre d'Études et de Documentation Économiques, Juridiques et Sociales	04/05/2015
21		N3	B F	*Principal Strategic Advisor* – UN-HABITAT Egypt Project Office, United Nations Human Settlements Programme	06/05/2015
22		N4	M E	*Advisor* – Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ)	12/05/2015
23		N5	K S	*Water and Waste Management Advisor* – Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ)	15/06/2015
24		N6	S Y	*Activist* – Cairo Lab for Urban Studies, Training and Environmental Research	17/06/2015
25		N7	Y G	*Activist* – Egyptian Centre for Economic Social Rights	23/06/2015
26		N8	M M	*Activist* – Tadamun	25/06/2015
27	Academics	A1	A R	*Professor* – Cairo University, Faculty of Urban & Regional Planning	23/04/2015
28		A2	I S	*Associate Professor* – Ain Shams University, Engineering Department	27/05/2015
29		A3	A Y	*Former Dean* – Cairo University, Faculty of Urban & Regional Planning	01/06/2015
30		A4	A S	*Associate Professor* – Cairo University, Faculty of Architecture	08/06/2015
31		A5	M M	*Professor* – Cairo University, Faculty of Urban Planning	02/07/2015
32	Professionals	P1	D S	*Economist and Urban Consultant*	05/05/2015
33		P2	A H	*Real Estate Solicitor*	21/06/2015
34		P3	O M	*Real Estate Developer*	05/07/2015
35		P4	A M	*Architect*	07/07/2015
36		P5	M S	*Developer*	12/07/2015
37		P6	M G	*Architect*	12/07/2015
38		P7	A L	*Mortgage Advisor* – Housing and Development Bank	15/07/2015
39		P8	M S	*Contractor*	16/07/2015
40		P9	S F	*Architect and Urban Planner*	20/07/2015
41		P10	G S	*Mortgage Advisor* - National Bank of Egypt	10/08/2015
42		P11	F M	*Developer*	25/08/2015
43		P12	L E	*Architect*	23/09/2015

A.5. The questions of the semi-structured interviews

Mostafa ELBESHBESHY
BArch MA
Postgraduate research student
Department of Geography
Phone: +44 1784 443563
Fax: +44 1784 472836
Mostafa.Elbeshbeshy.2013@live.rhul.ac.uk
www.royalholloway.ac.uk

ROYAL HOLLOWAY UNIVERSITY OF LONDON

Royal Holloway
University of London
Egham, Surrey
TW20 0EX

Cairo: the divided city

Policy versus reality and the journey to sustainability

Semi-structured interview

Name of interviewee.....**Position**.....

1. **Can you talk about your experience in the housing sector in Greater Cairo (GC)? (Category A, B and C)**

.....

2. **What action have you taken in regards housing in GC? What were the most important achievements and impediments? (A, B and C)**

.....

3. **What is the current situation of housing in GC? (A, B and C)**

.....

4. **Who are the main housing providers in GC? Is there any difference between them in terms of the provided housing, cost, quality and social stratification? (A, B and C)**

.....

5. **According to some researchers (e.g. Sims, 2012), around 70% of Cairo's residents live in informal housing that is either owned, built or both. What is your comment on this statement? If agreed with it, how has the situation has reached this stage? Who is/are responsible for this situation? (A, B and C)**

.....

6. **From a personal perspective, how should informal housing in GC be dealt with? (A, B and C)**

.....

7. **Have the new satellite cities in GC contributed in solving the problem of Cairo's informal housing? Explain (A, B and C)**

.....

8. **Why there is a low housing occupancy in the new satellite cities (NSC) in GC? (A, B and C)**

.....

9. **Have the governmental housing programmes been designed in NSC using a holistic development approach (e.g. employment, services, infrastructure, and transport)? Explain (A, B and C)**

.....

10. **Is there sufficient information about housing policy (e.g. registration procedures, building licence, building regulation, planning zoning) available online on official websites or hardcopy versions for GC's residents? (A, B and C)**

.....

11. **Why has parcelling of land in the NSC been mostly divided mostly into large plots (600-1000 m²)? Was it suitable for low-income residents? How can they have access to own these plots? (A, B and C)**

.....

12. **What is current governmental approach to mitigate the housing crisis in GC? (A, B and C)**

.....

13. **How can GC's infrastructure (some in a dilapidated state) cope with the rapid growth of housing in GC? (A, B and C)**

.....

14. **According to US AID (2008), 40% of Egyptian population cannot afford buying an accommodation. Are the prices of land and shelter in GC affordable to Cairenes? How? (A, B and C)**

.....

15. **What is your opinion about the 'Homeland House Scheme' (2015) where the price for buying a land in in the NSC varies between 450 to 610 US dollars per square meter? (A, B and C)**

.....

16. **Until 1952, renting was a dominant type on the housing market and it seemed a successful approach to provide housing for the poor. Why most of the current governmental housing units are for sale? (A, B and C)**

.....

17. **Do you think the real-estate market is the main sector for economic growth in Egypt, more important than agriculture and industrialisation sectors for example? Discuss (A, B and C)**

.....

18. **The right to housing is recognised in a number of international human rights instruments (e.g. Article 25 of the Universal Declaration of Human Rights) as part of the right to an adequate standard of living (Edgar et al., 2002; United Nations Human**

Rights Council, 2008; 2009). The right to housing was not part of the Egyptian constitution until 2012 version. What is the impact of its implementation in the housing policy in GC? (A, B and C)

.....

19. **What is your opinion about housing policy in GC? (A, B and C)**

.....

20. **Why there are so many ministries and departments dealing with housing development, which might be confusing to the common people in GC? (A and C)**

.....

21. **What are the legal procedures to register a land or housing in GC? (A)**

.....

22. **In 2007, the World Bank found that property registration in Egypt required seven procedures and took 193 days, at a cost of 5.9 percent of the property value (World Bank, 2007). According to Mai Abdul Hamid, Head of Support and Guarantee Mortgage Fund, that 92% of residential units in Egypt are not officially registered, 1.2 million units in the NSC and 3 million units in Cairo (Masrawy, 2014). How do you find the real-estate registration procedure? (A and C)**

.....

23. **Registering a housing unit is one of the requirement to apply for mortgage. What is your opinion about registering the housing unit before getting a loan? (A, B and C)**

.....

24. **What are the main problems of housing policy in GC? How can it be improved? (A, B and C)**

.....

25. **How does the housing allocation policy (land and shelter) in GC work? (A and C)**

.....

26. **How does the government guarantee that low-income people (e.g. among them illiterate, vulnerable, marginalised) know the steps to claim an affordable governmental unit in GC? (A and C)**

.....

27. **On a few occasions, the government announced massive housing projects such as '1 million housing units' in 2005 (before the presidential election) and in 2012 after the Egyptian revolution; neither had been achieved. Do you think the housing issue is used as a tool by the regime as a propaganda and to tame the population? (A and C)**

.....

28. **What is the situation of public participation in the decision making process about developing their local areas in GC? (A, B and C)**

.....

29. **What is the best method to ensure all stakeholders' interests are taken into account, and acted upon by the local authority in GC? (A, B and C)**

.....

30. **Why is the word "sustainability" or "urban sustainability" considered unfamiliar to the Egyptian government and to the residents of GC? (A, B and C)**

.....

31. **What is your opinion about the architectural style, building methods and materials used to build housing units in GC? How suitable are they to cope with climate change, taking into consideration the summer heatwave and the Nile's basin issue that could affect Egypt's share of water? (A, B and C)**

.....

32. **Why are not local materials and local housing designs promoted by government (e.g. Islamic architecture, Hassan Fathy's style)? (A, B and C)**

.....

33. **How can urban sustainability be achieved in existing GC's housing? (A, B and C)**

.....

34. **Why the governmental housing projects do not include sustainable techniques such as installing solar panels and water recycling tanks? (A, B and C)**

.....

35. **How can GC's new housing be built into a more sustainable approach? How can urban policy ensure that? (A, B and C)**

.....

36. **What are the constraints and potentialities of GC's housing? (A, B and C)**

.....

37. **How do you see GC's housing in the next 15 – 20 years? (A, B and C)**

.....

A.6. The questions of the semi-structured interviews (Arabic version)

إسكان القاهرة بين سياسة الإسكان والواقع

مقابلة شخصية شبه المنظمة

اسم ضيف المقابلة: ..... الوظيفة: .....

1. هل يمكن أن تحدثنا عن تجربتك في قطاع الإسكان في القاهرة الكبرى؟ (فئة أ/ ب/ ج)

.....

2. ما هي الإجراءات، الأفعال التي قمت باتخاذها فيما يخص الإسكان في القاهرة الكبرى؟ ماذا كان أبرز الإنجازات وأهم المعوقات؟ (فئة أ/ ب/ ج)

.....

3. ما هو الوضع الحالي للإسكان في القاهرة الكبرى من وجهة نظرك؟ (فئة أ/ ب/ ج)

.....

4. في رأيك، من هم مقدمي/ موفري خدمة الإسكان (السكن) الرئيسين في القاهرة الكبرى؟ هل يوجد اختلاف بينهم من حيث نوعية وحدات الإسكان المقدمة وجودة بنائها وتكلفتها؟ (فئة أ/ ب/ ج)

.....

5. وفقاً لبعض الباحثين (على سبيل المثال دكتور ديفيد سيمز، 2012)، أن حوالي 70٪ من سكان القاهرة الكبرى يعيشون في مساكن مبنية او مملوكة (او كلاهما) بشكل غير رسمي (عشوائي)، وأحيانا تقع في مناطق مصنفة كمناطق عشوائية. كيف ترى ذلك؟ وان اتفقت مع وجهة النظر السابقة ما هو السبب وراء ذلك؟ ومن هم المسئولين عن الوصول لهذا الوضع؟ (فئة أ/ ب/ ج)

.....

6. من وجهة نظرك كيف يمكن التعامل مع مناطق السكن غير الرسمية والعشوائيات في القاهرة الكبرى؟ (فئة أ/ ب/ ج)

.....

7. هل ساهمت المدن الجديدة حول القاهرة الكبرى في علاج مشكلة السكن العشوائي في العاصمة؟ وضح ذلك (فئة أ/ ب/ ج)

.....

8. لماذا نسبة الإشغال في المدن الجديدة حول القاهرة الكبرى منخفضة؟ (فئة أ/ ب/ ج)

.....

9. هل كانت برامج الإسكان الحكومي في المدن الجديدة مصممة على أساس التنمية الشاملة (توفير فرص عمل وخدمات ومرافق ومواصلات بها)؟ (فئة أ/ ب/ ج)

.....

10. هل هناك معلومات كافية عن سياسة الإسكان (خطوات تسجيل الملكيات، استخراج رخص البناء، قوانين البناء، المخطط العمراني وغيرها) متوفرة على المواقع الرسمية او نسخ مطبوعة متاحة لسكان القاهرة الكبرى؟ (فئة أ/ ب/ ج)

.....

11. لماذا تم تقسيم الأراضي في المدن الجديدة حول القاهرة الكبرى الي مساحات معظمها قطع كبيرة (600-1000 متر مربع)؟ هل يتلاءم ذلك مع مطالب محدودي الدخل وكيف يمكنهم الحصول عليها؟ (فئة أ/ ب/ ج)

.....

12. ما هي سياسة الحكومة الحالية للتخفيف من ازمة السكن في القاهرة الكبرى؟ (فئة أ/ ب/ ج)

.....

13. كيف يمكن للبنية التحتية الحالية (بعضها متهالك) التعامل مع النمو السريع العمراني في القاهرة الكبرى؟ (فئة أ/ ب/ ج)

.....

14. طبقاً لتقرير المساعدات الأمريكية في عام 2008، 40% من السكان في مصر لا يستطيعون شراء وحدة عقارية. هل أسعار العقارات والأراضي في القاهرة الكبرى في متناول الأغلبية؟ (فئة أ/ ب/ ج)

.....

15. ما هو رأيك في مشروع "بيت الوطن" المعلن عنه في 2015 حيث بلغ سعر شراء الأراضي في القاهرة الجديدة و6 اكتوبر بين 450-610 دولار للمتر المربع؟ (فئة أ/ ب/ ج)

.....

16. حتى عام 1952، كان استئجار الوحدات العقارية هو السائد في سوق الإسكان، وكان يبدو نهجا ناجحا لتوفير السكن للفقراء. لماذا اتجهت معظم الوحدات السكنية الحكومية الحالية للتمليك؟ (فئة أ/ ب/ ج)

.....

17. هل تعتقد أن السوق العقاري هو القطاع الرئيسي للنمو الاقتصادي في مصر وأكثر أهمية من قطاعي الزراعة والتصنيع على سبيل المثال؟ ناقش (فئة أ/ ب/ ج)

.....

18. الحق في السكن هو حق متعارف عليه في عدد من الصكوك الدولية لحقوق الإنسان (مثل المادة 25 من الإعلان العالمي لحقوق الإنسان) كجزء من الحق في مستوى معيشي لائق (إدغار وآخرون، مجلس حقوق الإنسان الأمم المتحدة، 2008؛ 2009). كان الحق في السكن ليس جزءا من الدستور المصري حتى عام 2012. ما هو تأثير الاعتراف به على سياسة الإسكان في القاهرة عما قبل؟ (فئة أ/ ب/ ج)

.....

19. ما هو رأيك حول سياسة الإسكان في القاهرة الكبرى؟ (فئة أ/ ب/ ج)

.....

20. لماذا هناك الكثير من الوزارات والإدارات التي تتعامل مع الإسكان، مما قد يربك المواطن البسيط؟ (فئة أ/ ج)

.....

21. ما هي الإجراءات القانونية لتسجيل الأراضي أو المساكن في القاهرة الكبرى؟ (فئة أ)

.....

22. في دراسة للبنك الدولي في عام 2007 وجد أن تسجيل الملكية في مصر يتطلب سبعة إجراءات تستغرق 193 يوما، بتكلفة قدرها 5.9 في المئة من قيمة العقار (البنك الدولي، 2007). وفي تصريح لمي عبد الحميد، رئيس صندوق دعم وضمان التمويل العقاري، أن 92٪ من الوحدات السكنية في مصر غير مسجلة رسميا منها 1.2 مليون وحدة في المدن الجديدة و3 ملايين وحدة في القاهرة (مصراوي، 2014). كيف تري إجراءات التسجيل العقاري؟ (فئة أ/ ج)

.....

23. أحد شروط تقديم طلب للحصول على تمويل عقاري هو التسجيل الرسمي للوحدة السكنية. ما هو رأيك حول تسجيل وحدة سكنية قبل الحصول على القرض؟ (فئة أ/ ب/ ج)

.....

24. ما هي المشاكل الرئيسية لسياسة الإسكان؟ وكيف يمكن العمل على تطويرها وتحسينها من وجهة نظرك؟ (فئة أ/ ب/ ج)

.....

25. ما هي سياسة توزيع الأراضي والوحدات السكنية في القاهرة الكبرى؟ (فئة أ/ ج)

.....

26. ما هي الخطوات التي قامت بها الحكومة لضمان معرفة ذوي الدخل المحدود (على سبيل المثال بينهم أميون، ومهمشون) بالخطوات في المطالبة بوحدة حكومية مدعمة؟ (فئة أ/ ج)

.....

27. في عدة مناسبات، أعلنت الحكومة عن مشاريع إسكان ضخمة مثل "المليون وحدة سكنية في عام 2005 قبل الانتخابات الرئاسية وأيضا في عام 2012 بعد الثورة المصرية. كلاهما تعثر لأسباب مختلفة. هل تعتقد أن قضية الإسكان تستخدم كأداة من قبل الحكومة كوسيلة للدعاية أكثر من مواجهاتها بالفعل؟ (فئة ب/ ج)

.....

28. ما هو وضع المشاركة الشعبية لسكان القاهرة الكبرى في عملية صنع القرار حول تطوير مناطقهم المحلية؟ (فئة أ/ ب/ ج)

.....

29. ما هي أفضل طريقة من وجهة نظرك لضمان الأخذ في الاعتبار جميع اهتمامات عناصر المنظومة السكنية (سكان، مجتمع مدني، مستثمر، حكومة، ...) وتنفيذها والعمل على أساسها من قبل السلطة المحلية (الحكومة/ المحافظة)؟ (فئة أ/ ب/ ج)

.....

30. لماذا كلمة "التنمية المستدامة" أو "الاستدامة الحضرية" تعتبر غير مألوفة للحكومة المصرية في سياستها وكذلك الحال لسكان القاهرة؟ (فئة أ/ ب/ ج)

.....

31. ما هو رأيك في الطراز المعماري، وطرق البناء والمواد المستخدمة في بناء الوحدات سكنية في القاهرة الكبرى من حيث مدى ملاءمتها في التعامل مع تغير المناخ، والاخذ في الاعتبار قضية حوض النيل التي يمكن أن تؤثر على حصة مصر من المياه؟ (فئة أ/ ب/ ج)

.....

32. لماذا لا تروج الحكومة لاستخدام المواد المحلية في البناء وتصميم المساكن المحلية طبقا لطراز يتلاءم مع المناخ الصحراوي (مثل العمارة الإسلامية، عمارة حسن فتحي)؟ (فئة أ/ ب/ ج)

.....

33. كيف يمكن تحقيق التنمية المستدامة في البيئة العمرانية القائمة في القاهرة الكبرى؟ (فئة أ/ ب/ ج)

.....

34. لماذا مشاريع الإسكان الحكومية لا تشمل تقنيات التنمية المستدامة على سبيل المثال تركيب الألواح الشمسية لتوليد الطاقة وخزانات لإعادة تدوير المياه المستخدمة لاستخدامها في ري المناطق الخضراء؟ (فئة أ/ ب/ ج)

.....

35. كيف يمكن بناء الوحدات العقارية مستقبلا بشكل بيئي أخضر وأكثر استدامة في القاهرة الكبرى؟ كيف يمكن استخدام سياسات الإسكان للتأكد من ذلك؟ (فئة أ/ ب/ ج)

.....

36. ما هي الإمكانات والمحددات للإسكان في القاهرة الكبرى؟ (فئة أ/ ب/ ج)

.....

37. كيف ترى قطاع الإسكان في القاهرة الكبرى خلال 15-20 عاما؟ (فئة أ/ ب/ ج)

.....

Appendix B: Historical urban development of Cairo

B.1. The Islamic period 640-1798 A.D.

"Historic Cairo has a prominent physical urban character and a strong social identity. Several important monuments dominate its townscape notably from the north to the south…… It has a unique architectural identity and contains the largest centre of Islamic and Coptic monuments in the world, both in quantity and in quality, and is included in the World Heritage List" (UNDP, 1997, p13).

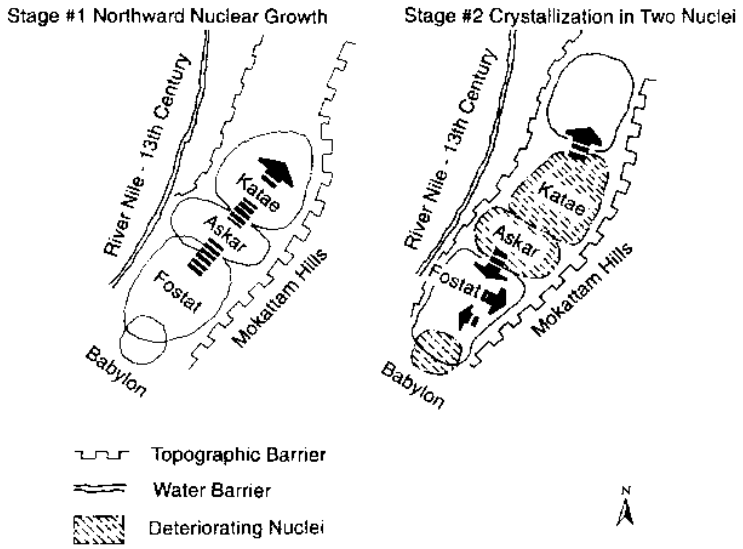
B.1.1 Arab conquest 640-1169 A.D.

Historic Cairo is the world's largest medieval urban system where the traditional lifestyle is still alive in daily practice (SCA, 2002). It is judged to be a fusion of smaller cities that developed over the last 1,500 years (Ibrahim, 2001; Sedky, 2009). Before 640 A.D., when the Arabs conquered Egypt, there was no significant settlement in the vicinity of the Babylon fort (western bank of River Nile), which was then known as 'Misr' (Egypt). The fort was originally developed as a Byzantine colony to become the Coptic district; later one, in the 7th century, Amr ibn Al'as founded a new settlement, called 'Fustat'. On the western bank of the river, a small urban population developed in Giza and Memphis. Although the Arab conquest did not interrupt the geographic continuity on the eastern bank of the Nile, it did generate a discontinuity in cultural stability. This is the reason why old Cairo stands mostly as a Muslim city, with no physical or cultural trace of its Pharaonic or Greco-Roman predecessors (Abu-Lughod, 1971; Raymond, 2002; Singerman, 2011a). Cairo's classical period is regarded as the period when the Islamic city flourished (Aslan, 2006).

In 640 A.D., 'Fustat' was founded, and with the first mosque at its centre, a quasi-permanent military camp was established alongside the marketplaces which bordered the city. Hence, one can describe

city's characteristics as religious through the central mosque and military through the army which has had the power in the state since the origins of the city. By the 9th century, 'Fustat' grew and merged with two other districts, known as 'Alaskar' in 751, and 'Alqata'i' (the wards) in 870 to become an Islamic metropolis (Moselhi, 1988; Selem, 1983; Sedky, 2009) (Figure B.1). However, in 950 'Alqata'i' was destroyed in a battle for power.

Figure B.1: The urban development of Fustat, Alaskr and Alqata'i



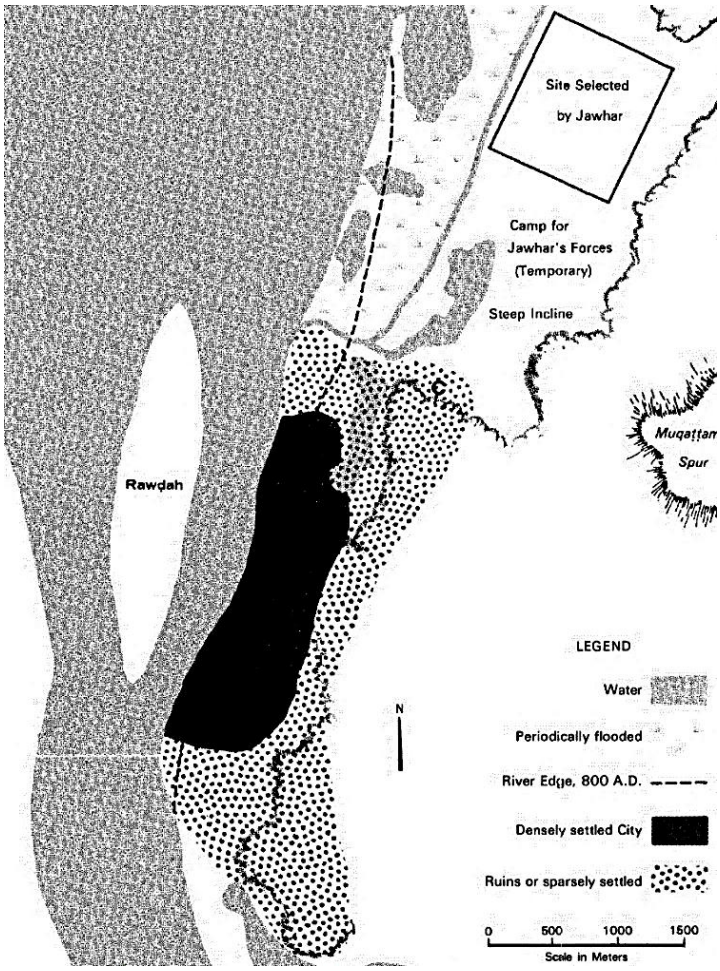
Based on Yousry and Aboul Atta, 1997

In 969 A.D., a Fatimid conquering army from North Africa drew out the lines of a fenced city for the Fatimid royal family and their officers and troops that became the seat of Shi'ite dynasty for the succeeding 200 years. Perhaps the most significant landmark of those times, remains Alazhar Mosque, constructed in 970 A.D., was at the centre of Fatimid politico-religious life and still holds a prominent position in the Islamic urban landscape today (Figure B.2) (Abu-Lughod, 1971; Stewart, 1999; Raymond, 2002).

As new Islamic cities were emerging in Egypt, they were classified under two main categories: military sites which sooner or later grew into permanent cities such as Fustat; and princely settlements established to mark the birth of dynasties and to affirm their authority such as AIaskar, Alqata'i' and Alqahira (Cairo). The first type of

Egyptian cities was to be unplanned, inadequate in public amenities and simple aesthetically, whereas the latter was aimed as symbols of status, being both well planned and attractively built (Elghitani, 2007).

Figure B.2: The site of Fatimid Cairo



Based on Abu-Lughod, 1971, p17

During the 11th century, there were two symbiotic cities: Fustat, the larger of the two, occupied by the indigenous population and devoted to commercial and industrial activities; and Cairo, a well-designed community for the needs of a large and complex courtly society, divided into separate quarters according to ethnic lines and liberally endowed with gardens and palatial residences. The glory of these two communities was to vanish within little more than a century as a result of natural disasters (the Great Plague of 1063, the seven-year famine beginning only a few years later, the earthquake in 1138) and the final blow was administered in 1168 during larger scale religious-political

events by fire to prevent its capture by Frankish armies (Abu-Lughod, 1971). The religious-political factor had transformed Cairo from a ceremonial princely city to an overflowing metropolis, inhabited by leaders and crowds likewise (Stewart, 1968; 1999). Once integrated with Fustat and the other districts, Alqahira became one of the largest cities in the medieval world (Abu-Lughod, 1971).

The legacies of the past cities – Fustat, Alaskar and Alqata'i – have been imprinted on Cairo's physical and social development. Until now, the remote portions of Alaskar have been occupied by informal settlements and squatters, a municipal rubbish dump, a site for archaeological excavations, and industrial areas, alongside vast highways are now crossing the zone (Plate B.1). Over the last few decades, the top hills of the area have been allocated to luxury residential housing that overlooks the houses of the poor on the river bottom land (Own fieldwork, 2015).

Plate B.1: The legacies of Fustat still exist in Cairo's built environment

Based on own fieldwork, 2015; UNESCO, 2012

Another central point of Cairo's southern zone is made unsuitable for development by the extensive cemetery, which occupies a wide strip of valuable land. It is noteworthy that while the city of the living of Fustat has long since vanished, its city of the dead still houses thousands of residents today. However, it can still be considered an open space in this densely urban morphology of Cairo. After the Fatimid period, there were three main periods in Medieval Cairo - Ayyubid 1169-1252, the Mamlouks (1250–1516) and the Ottoman (1517-1798).

B.1.2 Ayyubid 1169-1250 A.D.

Although the Fatimid dynasty was important in the process of establishing Cairo, it was under the Ayyubids that the city bloomed into a classical Arab capital and a global economic influence. Furthermore, it was during this period that the form of the city was built, creating a framework which influenced its development for centuries. This period corresponds with increased political leadership under the famous Salah Aldin, who established the Ayyubid dynasty.

Egypt's control of the Red Sea integrated the country into the European global trade system. Its strategic location, at the intersection of Africa, Asia and Europe, facilitated the development of an intense, trade-based economy and started to be seen as necessary, particularly in Europe: "*Egypt as middleman, raised by three hundred per cent the prices for pepper and other spices which had become more and more valued in European kitchens*" (Stewart, 1968, p157). Consequently, the city's market areas developed and the famous 'Khan Alkhalili' market and other 'wikalas' trade buildings were founded during this period (Elghitani, 2007) (Plate B.2).

Plate B.2: Khan Alkhalili is still in use today

Based on own fieldwork, 2015

As a result of economic growth and political stability, there was a rapid increase in the population of Cairo, which triggered spatial expansion, making it one of the largest cities in the world (Hamdan, 1982; Abu-Lughod, 1971). By the early 14th Century, Cairo's population reached half a million (Abu-Lughod, 1991; Stewart, 1999; Raymond, 2002). The end of the Ayyubid Empire in 1250 A.D. left Cairo as a vital city, economically integrated into the world economy of the time. During this period, the walled city of Cairo had been transformed from Fustat, and Bulaq port was constructed (Elghitani, 2007).

B.1.3 Mamlouks 1250–1516 A.D.

Ayyubids were followed by the Mamlouks, former military slaves who rebelled against their masters. During the Mamlouks' reign, the country's wealth streamed into the capital, creating a period of economic prosperity. Although Cairo developed new residential areas to the north and south of the city, rural areas were almost brought to stagnation (Stewart, 1968; Raymond, 2002). With the construction of the western Canal around 1313, new lands were giving space for

orchards, farms and luxurious residences in the west of the city (Abu-Lughod, 1971; Stewart, 1999).

Over the course of three centuries (13th - 15th century), the city of Cairo expanded to almost five times the size of its original fenced basis, reaching an area of 184 km (Yousry and Aboul Atta, 1997). Perhaps of even greater significance, the area Cairo encompassed by the end of the 15th century remained almost constant until the latter half of the 19th century, as seen in detailed 1798 French maps. The two main reasons for the growth of the city were the politico-economic spice trade which caused the city to expand on the southern side, and Nile's recession, causing urban expansion in the western side (Raymond, 2002).

By the end of the 15th Century, before the 300 years of stagnation in Cairo's development, two developments are worth mentioning – Bulaq and Azbakiyah. The first, Bulaq, developed as an island in the Nile during the starting decades of the 14th Century. Bulaq was joined to the mainland through two bridges, becoming Cairo's major port with industrial character. The second is the region of Azbakiyah, nowadays part of the central business sector of the 'westernised' city, upper-class district and the geographic core of the capital (Abu-Lughod, 1971).

B.1.4 Ottoman 1517-1798 A.D.

For almost two hundred years, during the reign of the Mamlouks, the city suffered chronic violence and the rise of the plague, starting with the 1340s. The succession of the Ottoman dominance in 1517 brought Cairo into a period of decline. This deteriorating condition continued all through the Ottoman period due to a mixture of economic, political, and military reasons. Moreover, the conquest of Egypt by the Ottoman Empire subordinated Cairo to Constantinople, losing its independence. Economically, it was the shift in world trade routes (going around Africa) which permanently weakened Cairo's last economic base, depriving the country of enormous tax reserves. This period was also characterized by political instability leading to conflict

amongst the remaining Mamlouks, beside the uprising disputes between the Ottoman army divisions. The country rose against the Turkish rulers and the Mamlouks and a national rebellion in the 1780s damaged many of Cairo's districts. Ottoman domination resulted in a variable dislocation of the urban structure, bringing the decadence of the city (Ahmed and Kamel, 1996).

While Europe was rising to new industrial heights in the 18th century, Egypt was falling to ruins under Ottoman domination until being 'rediscovered' by the Europeans during the 1798 Napoleonic Expedition. The Islamic political economic era was transformed by the arrival of the French in Cairo setting the scene for a European Imperialism dominated period (Stewart, 1999; Abu-Lughod, 1971).

We can conclude that the early Islamic settlements, concentrated in the southern third of the modern metropolitan region, left their mark mainly in the form of ruins and 'cemetery' land uses which have prevented expansion without shaping or contributing to the functional order of the contemporary city. On the contrary, Medieval Cairo has been incorporated into the modern city as a living and still vigorous entity, such as remnants of Salah Aldin's walls still stand sentinel at Bab Alfutuh, Bab Alnasr, and Bab Zuwaylah. His Citadel, much elaborated, still dominates the city skyline from above. Street names and sections are still known by their early landmarks, such as Bab Albahr, Almu'izz Iidinallah, all have their origin in the history recounted here (Plate B.3).

Plate B.3: Medieval Cairo's landmarks are key urban features of modern Cairo

Based on own fieldwork, 2015

B.2. The Imperial period 1798-1952 A.D.

B.2.1 French occupation 1798 – 1802 A.D.

Imperial Cairo came into being after the end of Muhammad Ali's reign in the late 18th century. However, Cairo's road to westernization had started with the short French occupation (1798) and the lengthy reign of Muhammad Ali, who made Cairo into the Pashalik of Egypt in 1805. In attempting to understand the nature of modern Cairo, we are faced with an inexplicable paradox. Although Cairo was under French occupation for just three years and under the British for 80 years, 20th century Cairo was shaped by the French rather than by the British, as the use of French professionals made Paris into the first prototype of western styles (Abu-Lughod, 1971; Gregory, 2005).

The shift in values affected the local architecture of the city in adopting the western influences, façade colour and building material (Antoniou, 2007). Thus, many traditional artefacts, such as patterned wood windows 'mashrabiyah' were no longer used to provide privacy while providing protection from the hot summer sun; the craft workshops started to disappear, while ruined traditional houses were replaced with neo-classical buildings in the historic quarters (Sedky, 2009). These new changes slowly replaced the traditional values and by 1840 the trend was to build inadequate structures to match the European or Turkish styles. These architectural oddities were to become irreversible. In this study, I argue that adopting foreign architectural models without merging them with the local features while considering the arid climate have had a negative impact upon the housing stock and the built environment in Cairo; this is felt till present days. Considering the geographical context where Islamic architecture evolved, it could offer sustainable solutions in dealing with age-old challenges such as a hot climate. The current architectural practices, Western in nature, use artificial lighting and air-conditioning in trying to improve indoor environments. Traditional Islamic architecture was

developed taking into account the natural circumstances of the region, thus providing shade, privacy and a breeze (Fathy, 1986; 2000).

A significant reform initiated by the French occupation was the reorganisation of Cairo's administrative districts, joining the 53 existing alleys ‘harat’ of Cairo into 8 large administrative districts – arrondissements, each known as a ‘thumn’ (Arabic for one-eighth). This has had a profound effect on rekindling the ties between Europe and ‘the Orient’ (Abu-Lughod, 1971; Elghitani, 2007).

B.2.2 Late Ottoman and Colonial era 1802-1952 A.D.

During the power struggle between the Ottomans and Mamlouks between 1801 and 1805, Muhammad Ali gained the support of the general public (Vatikiotis, 1985). Muhammad 'Ali (1805- 1848) focussed his efforts on achieving political stability and on cleaning the city of Cairo, which was left to fall into ruin. In time, the city’s buildings had deteriorated, rubbish had been inadequately disposed of, and industry and trade stagnated, resulting in economic decline. Due to minimal trade with Europe, Egyptians started lacking knowledge of western technologies. Therefore, Muhammad 'Ali constructed European-modelled schools and factories, in order to foster industrial development. Several of these developments were located in or near Cairo, encouraging the city’s expansion (Elrafee, 1989).

Mohamed Ali started a ‘modernization’ phase in Egypt by developing irrigation systems, transport infrastructure and local industry, which provided the foundation of further Egyptian prosperity. During this time, Alexandria was re-urbanised as a flourishing and ‘cosmopolitan’ port city. Mohamed Ali’s reforms attracted considerable foreign investment which led to increased foreign minority communities. These were to hold key roles in the Egyptian economy. Such an example is represented by the Levantine Jewish community, who became an important factor in the land speculation and development of Cairo (Moore, 2014). In agreement with the situation of colonial

Cairo, Simon (1992) affirms that European imperialism and colonialism which was based on commercial trades (later industrial capitalism), usurped the ethnic organisations, cultures and economies, causing a dependence of Africa on foreign powers.

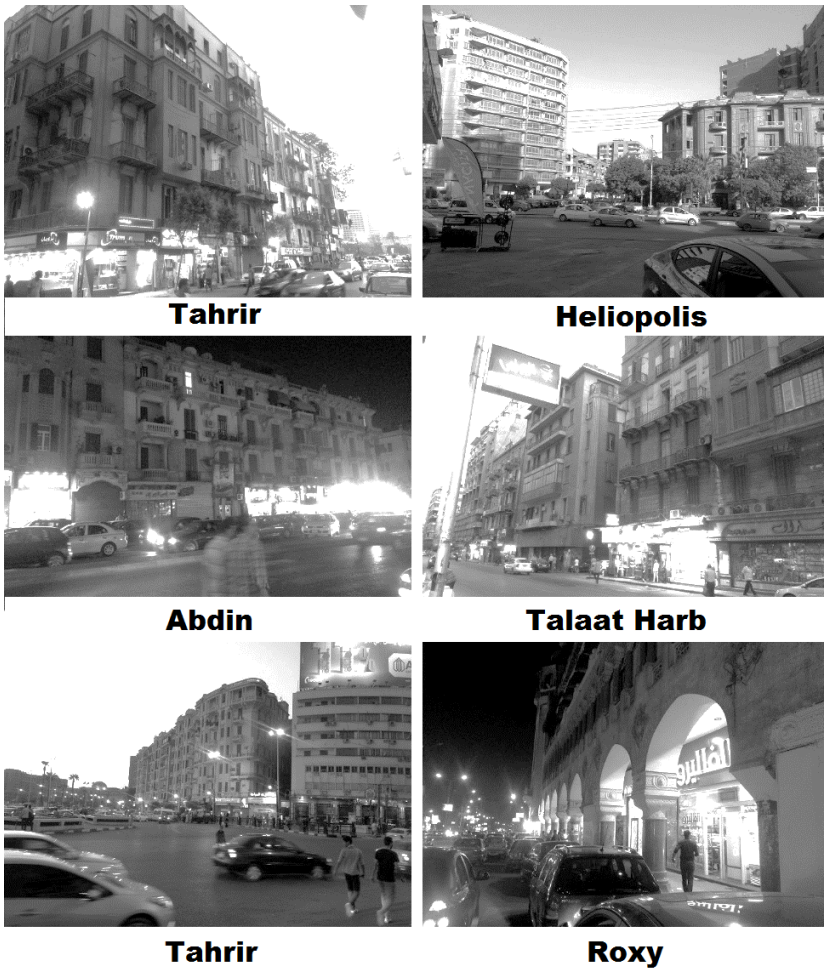
Throughout this period, cities were planned and developed under two main influences – the European political intervention and the local peripheralisation within a westernised world economy. Local landscapes were emerging based on adoption and adaptation processes on one side, and on rejection of the European models in the traditional areas on the other side. Cairo makes a notable example of this theory in practice. European urban features were rapidly assumed by the Egyptian elite who incorporated them into city's façade (Plate B.4). Starting with the 1860s, under the rule of Ismail, westernization was part of the modernisation neighbourhoods, civic edifices, and public spaces in West Cairo and they bear a resemblance to the Parisian urban fashion of those times (Shechter and Yacobi, 2005). By the time the British replaced the Ottoman rule, a new 'European' Cairo had been created, although even by 1882, the old city of Alqahirah was still unaffected by this modernization (Lamplough, 1901; Ahmed and Kamel, 1996).

The newly emerged westernized urban environments have divided the city into old and new; 'old city' referring to tradition and local life, while the 'new city' consisted of public buildings, commercial centres, and residential neighbourhoods. Imperialist Cairo was illustrated as a mixture of old and new (Abu-Lughod, 1971; Shechter and Yacobi, 2005).

Cairo's evolution from the Islamic to Imperialist political economic systems is metaphorically illustrated by the shift in the political power of the Islamic Citadel to the Abdeen Palace, (constructed in 1863 by Ismail). Located in the core's west side of the Islamic city, the Palace triggered the development of 'European' Cairo in the western part. Two residential quarters – Ismailiya and Ezbekeya – were developed

surrounding the Abdeen Palace. Along the bank of the Nile a new residential area, Garden City, was built, resulting in the eradication of the western canal which ended agriculture in the area. These developments were supported by European architects such as Barillet-Deschamps (Stewart, 1999; Abu-lughod, 1971; Seton-Williams and Stocks, 1988). Moreover, the new developments were left to private enterprises, only lightly regulated by the government causing a confusing mix of old and new city landscapes. With the 1850s' land legislation, foreigners were permitted to own land, as a result of which Egyptian real estate received large-scale foreign investment for the next seven decades. According to Baer (1975), by 1920, foreigners owned almost 20 per cent of Egyptian land and much of the local administration was frequently accused of corruption (Egyptian Gazette, 1919; 1921 cited in Moore, 2014).

Plate B.4: The Imperial Cairo with its European urban features



Based on own fieldwork, 2015

Just after the beginning of the 20th century, Cairo was divided into two physical communities. The city's physical duality was but an indication of the cultural separation. In the eastern side – the native city, still fundamentally pre-industrial in technology, and its social organisation; while in the western side – the industrialised colonial city with its European features (fast paced lifestyle and wheeled traffic). In brief, all key points the two cities, in spite of their physical proximity, were centuries apart socially and technologically. Isma'il's obsession of western lifestyle and architecture led to the reason why the western city developed, attracting numerous European residents who took over the governmental posts and enjoying privileges.

An interesting remark to note is that while the leading ideology of Imperial Cairo was visibly European, it was originally started by the successors of the Ottomans. As previously stated, Egypt had already begun the modernisation process under the rule of Mohamed Ali Pasha (1805–48), and was continued by Said Pasha (1854–63) and Ismail Pasha (1863–79) (Crinson, 1996). In creating a 'European' Cairo, these rulers have chosen to reject the traditional Islamic architectural values and it has been reported that Ismail had stated: "*My country is no longer in Africa, it is in Europe*" (Vatikiotis, 1991, p74).

With a 'European' Cairo, the economy was being incorporated within the wider global economy. However, this interaction was increasing the dependency and external control upon the country:

> *"From a country which formed one of the hubs in the commerce of the Ottoman world and beyond, and which produced and exported its own food and its own textiles, Egypt was turning into a country whose economy was dominated by the production of a single commodity, raw cotton, for the global textile industry of Europe*" (Mitchell 1988, p16).

It can be briefly said that the colonialism introduced a foreign cultural system, dividing the city as opposed to favouring integration.

With the British colonisation of Egypt, Cairo's population increased as a result of rural-urban migration, especially after the world wars (Stewart, 1999). Since the 1800s, the Egyptian population has increased thirty times from 3 to 90 million nowadays (CAPMAS, 2014), while Greater Cairo's population, around 20 million (ibid), has become forty-two times greater than it had been in 1800. In other words, the natural topographical and manufactured technological factors channelled the explosive development of the 20th Century. From an underpopulated country, the main obstacle to financial growth of which seemed to have been a lack of workforce, Egypt has become one of the most extreme examples of an overpopulated country whose rapid natural population increase is regarded as a grave hindrance to its development and improving the quality of living. According to CAPMAS, the population of Egypt in 2016 was over 91 million, 13 times more than the mere 7 million in 1882 (see Table D.2, Appendix D).

Throughout this period, Egypt has changed from an overwhelmingly rural agricultural nation to one in which 44% of the population lives in urban areas (World Bank, 2014). These numbers, however, have been contested by various scholars who consider that they are underestimated in the official figures (Bayat and Denis, 2000). We ought to consider that some urban residents undertake agriculture while leading their lives in a rural manner, while some rural residents do not work in agriculture. This urban growth is considered to have had as its key factors the state's modernisation policies (increased government employees), natural increase, rural-to-urban migration, decline in the mortality rate, improved epidemic control, and better sanitary services and environmental sanitation, which has increased the demands for a corresponding development in the housing stock. Two key features should be considered when analysing Cairo's housing problems. The first is the rate at which the housing stock is supplemented in relation to the growth in the population – housing volume; the second is the financial capacity of Cairo's residents to pay for adequate housing.

Although there has been a good volume of housing construction in the present century, it has never been able to keep up with the population growth and keep housing affordable in Cairo. According to Abu-Lughod (1971, p164), "*the average number of persons per room in Cairo was 2 in 1947 and 4.8 persons in 1960*". In order to accommodate the urban millions, horizontal as well as vertical spaces were required, most of which were built informally (see Chapter 7).

What has helped the urban growth of the city overcome the four main forces that had prevented Cairo from spreading physically before the 20th century, were distance, drought, flood and the river. Nevertheless, during the first two decades of that century each of these obstacles was eliminated, benefitting the urban growth demanded by Cairo's sudden population increase. Distance had been overcome by public transport 'tramlines'; the desert had, in a few spots at least, been irrigated and developed; bridges traversed the river bringing the islands and the west side into the boundary of the city (Plate B.5); while sewage and flood control had facilitated the trade of river banks (Hawas, 2002).

Plate B.5: One of many bridges that traverse the Nile

Based on own fieldwork, 2015

However, two institutional problems affected Cairo in the 1910s and proved challenging that remained until now: (a) lack of home rule in order to finance local developments from an independent budget along with a local representative government to represent the local community, and (b) the absence of local organisations to finance private urban development. The lack of home rule refers to the absence of self-governing state as the central government in Egypt manages Cairo leaving limited space for the local government to manage the city (Abu-Lughod, 1971; Own fieldwork, 2015) (see Chapters 5 and 6). As capital city, Cairo, was in a more atypical situation than most other local communities. Although since Mamlouk times, the city had been managed by a pseudo-military governor, in reality, there was a fine line between the local and national governments. Managing Cairo implied administering the country. Throughout the centuries of changing powers, Cairo was always caught up in the middle (Ashour, 1995; Abdelwab, 2012). Thus, in time, Cairo's local government was restricted to apolitical maintenance functions, such as installation of water and electrical systems, managing the repairs and cleaning of streets and public gardens, regulating public facilities, and the like.

The Municipality of Cairo was officially recognised in Law No. 145 of 1949 as distinct from the national government (Abu-Lughod, 1971). National ministries of the government took various responsibilities for planning, implementing, and administering Cairo's various public services (see Chapter 6 and Appendix C). For example, the Ministry of Health administered hospitals, clinics, and other medical units, while primary and secondary schools and universities were managed by the Ministry of Education (Hawas, 2002). This organisational separation based on function rather than locality had significant effects on the type of local planning (Personal interview with O12).

When the locality is the basic unit of planning, a given budget must be assigned for realising the community objectives which raises questions such as: how much should be allocated to education,

housing, infrastructure or its maintenance. On the contrary, where function is the basic unit of planning, the budget distribution revolves around numerous competing localities. The question is, ‘what budget should be allocated to Cairo in comparison to other localities’ while considering equity as a means to achieving fairness across Egypt. In this case, each community attempts to maximize its share in each separate budget, without necessarily considering the effect of each upon ‘balanced’ community development (see Chapter 6 and Appendix C).

At a public level, the lack of co-ordinated municipal organization in Cairo proved a major constraint to urban development, while at a private level, this was represented by the lack of financial associations, mortgage financing, to permit large-scale development (Own fieldwork, 2015; see Chapters 5, 6 and 7). Therefore, the public facilities in Cairo which were not run by the city service or by the other national organisations were left to private foreign concessions, a process that further deepened the fragmentation and increased the need for co-ordination (Hawas, 2002). The concept of concession in 19th century Egyptian law was a largely accepted method in offering municipal services from which most concessions were granted to foreign nationals. This situation was to change through the implementation of radical naturalization policies that were introduced by the revolutionary regime after 1952 (Alioubi, 1996).

Appendix C: Housing management

C.1. Ministry of Planning, Follow-up and Administrative Reform (MOP)

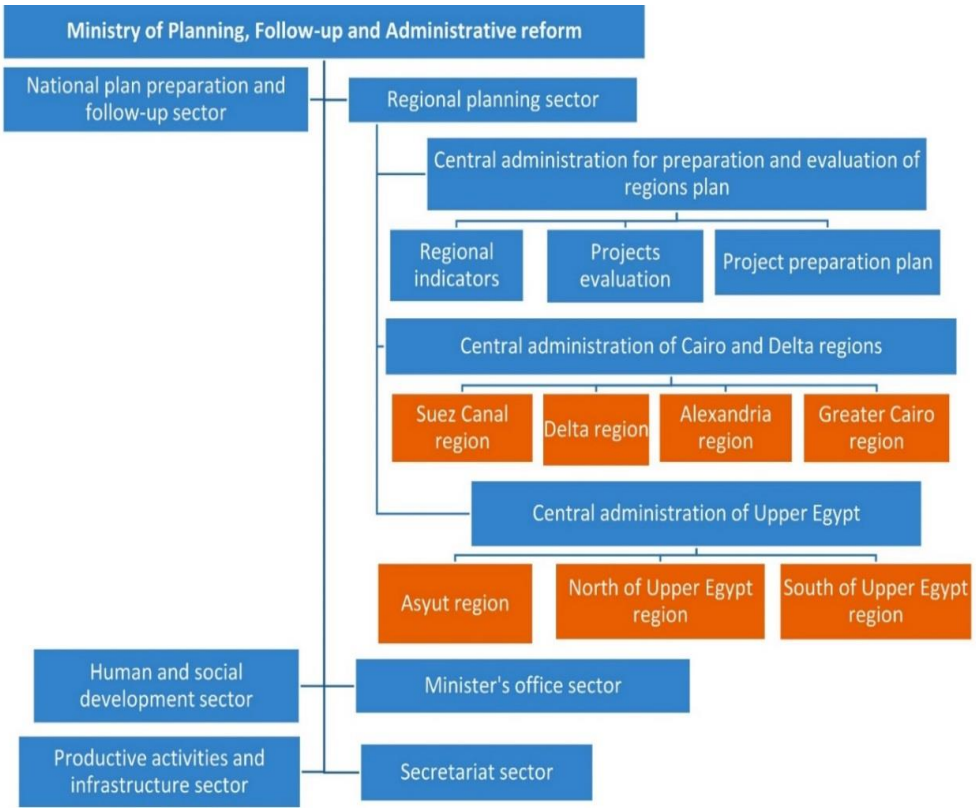
The Ministry of Planning divides Egypt into seven economic areas, with a planning bureau in each region. The responsibilities of the regional planning agencies are outlined in the 1977 Presidential decree No 475, 1979, Law No 43, and the 2014 Egyptian Constitution as follows: to identify the natural and human resources of the region, and suggest the needed plans for the region's socio-economic development; to appoint the required technical departments to conduct the studies and the planning processes. Each of the seven economic regions has a higher regional planning committee (Figure C.1), comprised of the chairman who is the governor of the region's capital, the governors of the constituencies of the region, the leaders of the local people's councils, the managers of the regional planning agencies, and the delegates of the ministries appointed by the relevant ministers. The key duties of the higher regional planning committee are to direct development plans of governorates, to authorise development plans proposed by the regional planning agency, and to monitor implementation process (Personal interviews with O6 and O11).

It is important to note that economic regions and regional planning agencies (under the MOP) also form part of the local authority system (under the Ministry of Local Developments, and Ministry of Housing, Utilities and Urban Communities), which turns planning into a double process split between different local and central authorities (Personal interviews with O1, O6 and O8) (Figure C.2). This causes urban development in Egypt to be non-integrated within the socio-economic plans of MOP urban development framework and hinders the influence of the Ministry of Planning and the regional planning agencies although they embody the spatial dimensions of the national plans. It

worth noting that the total Egyptian budget for the built environment in 2015/2016 was LE98.8 billion, which is 37% of the total budget (Table C.1). By far the largest share goes to central government while the local level gets only 3.2% (MOF, 2016a; b) which emphasises the centralisation mechanism of decision-making in Egypt.

The investment allocation between the new cities and the existing ones is almost the same in spite of having a significant disparity in terms of population (LE29.8 and LE28.4 billion for 2% and 98% of population respectively) (Table C.2) (MOF, 2016a; b). Moreover, the ratio spending on built environment is going mainly to social housing, out of which Greater Cairo does not receive the highest ratio (Table C.3). These figures reveal that in Greater Cairo region the highest investment in the Old City goes to transport while in the New Cities urban development receives the highest investment.

Figure C.1: The structure of MOP and Egypt's seven regions



Based on own fieldwork, 2015

Figure C.2: The process of national planning through Ministry of Planning

Step	Action
1 and 2	The general policy of national development plan
3 and 4	Local development proposal plans
5	Regional development proposal plans
6 and 7	Development plans approval
8 and 9	Implementation and follow-up process

Based on personal interviews and own fieldwork, 2015

Table C.1: The built environment investment in Egypt 2015-2016

Governmental body	State-owned enterprises	Egypt total budget	Total (LE)	
			Number	%
Ministry of Transport	6,840,000	11,694,800	18,534,800	18.7
Ministry of Electricity	25,303,400	0	25,303,400	25.6
Ministry of Local Development	0	650,000	650,000	0.7
Ministry of Housing	29,885,183	21,384,689	51,269,872	51.8
Governorates	362,735	2,765,536	3,128,271	3.2
Total	62,391,318	36,495,025	98,886,343	100

Based on MOF, 2016a; b

Table C.2: Total built environment investment 2015-2016

City		Investment (LE)				
		Existing		New		Total
Greater Cairo	Cairo	5,803,444,000	29.85%	13,637,431,000	70.15%	19,440,875,00
	Giza	1,267,888,000	27.47%	3,348,231,000	72.53%	4,616,119,000
	Qalubia	1,599,128,000	60.18%	1,058,164,000	39.82%	2,657,292,000
	Total	8,670,460,000	32.46%	18,043,826,000	67.54%	26,714,286,000
Rest of Egypt		19,029,540,000	61.81%	11,756,174,000	38.19%	30,785,714,000
Total		27,700,000,000	48.17%	29,800,000,000	51.83%	57,500,000,000

Based on MOF, 2016a; b

Table C.3: The built environment investment ratio per capita

Regions		Built environment of existing (E) and new cities (N)						
		Transport	Electricity	Sanitation	Water	Social housing	Urban development	Average
Greater Cairo	E	191	4	72	31	72	9	63
	N	53	44	99	43	62	177	80
Alexandria	E	66	2	68	22	96	7	44
	N	20	26	76	11	46	0	30
Delta	E	28	3	58	26	105	1	37
	N	29	12	37	38	49	0	27
Suez Canal	E	57	28	133	37	551	41	141
	N	5	7	43	7	0	0	10
Frontier	E	329	93	181	283	1556	198	440
	N	321	536	751	537	0	0	358
Upper Egypt	E	41	9	45	24	6	142	45
	N	22	23	23	11	64	0	24
Average	E	119	23	93	71	420	44	128
	N	75	108	172	108	37	29	88

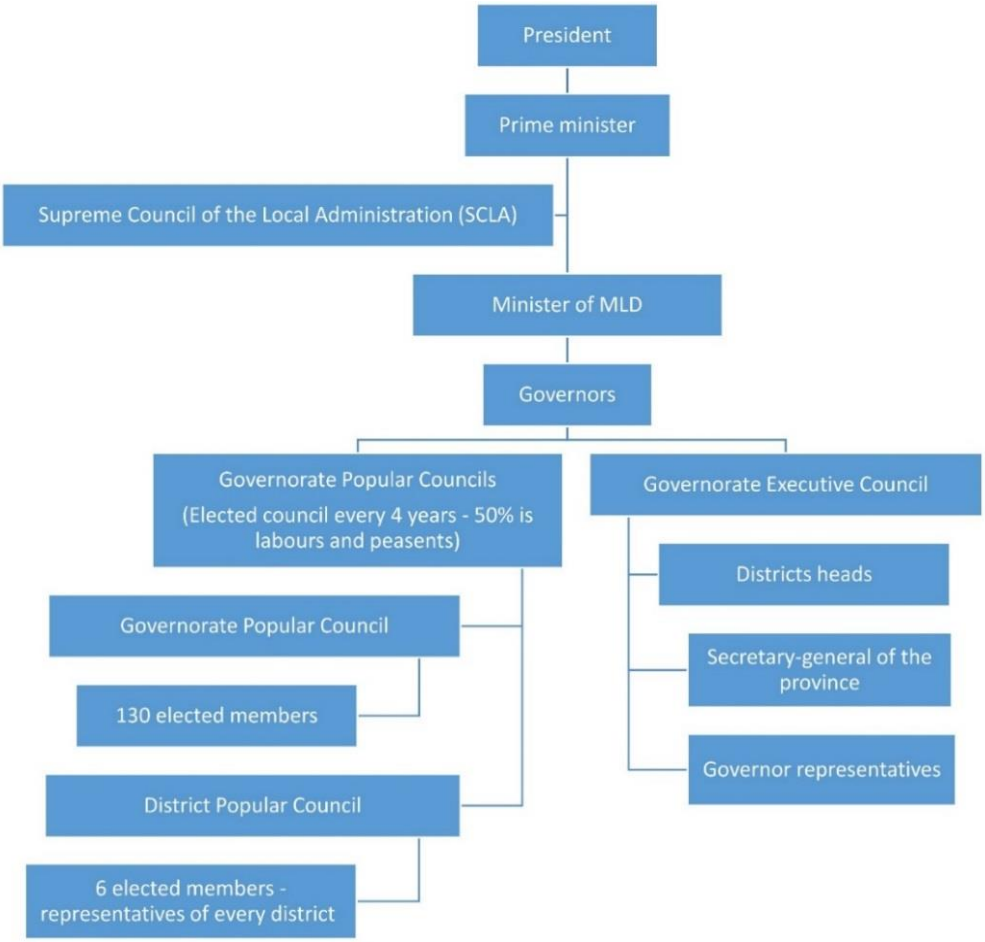
Based on MOF, 2016b

C.2. Ministry of Local Development (MLD)

Presidential Decree No 380 of 1999 and Decree of the President of the Supreme Council of the Armed Forces No 10 of 2011. They set out the responsibilities of the MLD as being to coordinate local administration agencies in all governorates of Egypt, and collaborate with relevant ministries, stakeholders and local administration agencies in order to contribute to urban, socio-economic development plans. It also collaborates with the Ministry of Agriculture to draw administrative maps, to establish a centralised database of informal areas and poor communities, to propose funds allocation for local development projects across all governorates, and to provide human resources leadership training needed to manage local units (MLD, 2016; Personal interview with O6). The following bodies are related or

part of MLD and have impact on the urban development and housing sector (Figure C.3). It is worth noting that these laws are promulgated by decree rather than parliamentary approval.

Figure C.3: The structure of MLD



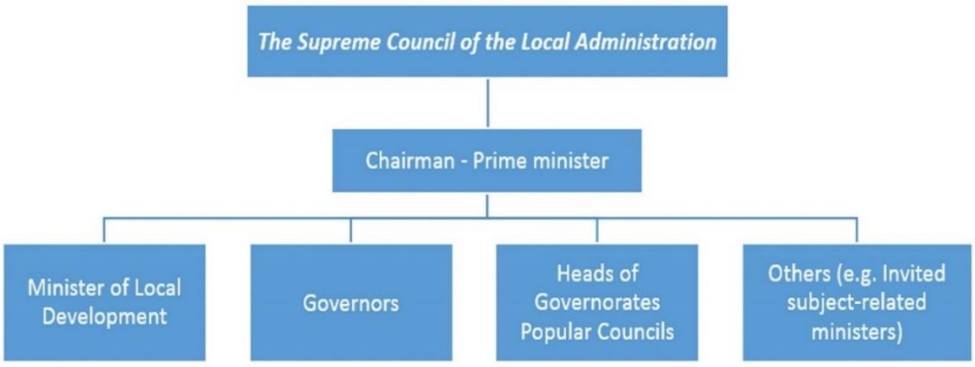
Based on own fieldwork, 2015

C.2.1. The Supreme Council of the Local Administration (SCLA)

The Law 124 of 1960, Law 43 of 1979, and Constitution Article 12 of 2014 founded the SCLA under the authority of the Prime Minister (Figure C.4), and its responsibilities include to monitor the proposal of laws and regulations by the local government system, to coordinate between the ministries and governorates, to propose plans in view of developing villages into cities, to network international organisations with local administration, and to administer foreign aids and allocate them to provinces according to the approved plans. However, it is

worth mentioning that SCLA has yet to hold a meeting since its establishment, passing its responsibilities onto the Council of Governors (Personal interviews with O6 and O12).

Figure C.4: The structure of SCLA



Based on personal interviews with O6 and O12

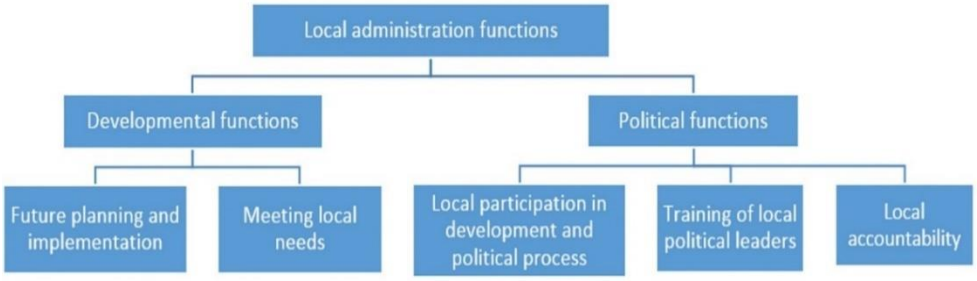
C.2.2. Local Administration under MLD

The local administration is a tool of development mechanisms designed to increase the efficiency of administrative performance in the state. It aims at giving local administration jurisdictions and powers to help the speed and ease of decision-making away from central government. However, these decisions still aim to achieve broad state development goals in collaboration with the central government. Local administration system is split into three main sections: planning, executive authorities, and regulatory establishments (Rashid, 1999; Mokhtar, 2000; Tonwe, 2011; 2014).

Local governments are political and developmental mechanisms responsible for training citizens in political participation and establishing traditions and democratic values (Figure C.5). In 1949, King Farouk established Cairo's Municipality 'Albaladiyya' under Law 145 but due to unclear responsibilities it did not function effectively, thus did not last for long. In 1960 Law 124 defined a consistent local governance system in Egypt, integrating Albaladiyya. The main responsibilities of the newly-formed municipality were to plan and regulate street alignments and setbacks, to build an effective

infrastructure, to create a reliable transport system, to manage public health, to regulate private construction and demolition, and to provide support to the low-income (Sami, 1928; Baer, 1969; Abu-Lughod, 1971; Mubarak, 1988; Reimer, 1999). Nowadays, Greater Cairo is divided into three governorates: Cairo, Giza and Qalubia (Personal interviews with O2 and O6). The main local administrative components are analysed in details below.

Figure C.5: The functions of local administration



Based on own fieldwork, 2015

C.2.3. Governorates

"Overwhelming head and rickety body"

(Hamdan, 1967 – in describing the Egyptian State)

Law No 43 of 1979 states that each of the 27 Egyptian governorates is to be represented by a governor appointed by the president. Governorates are responsible for land development, housing, public utilities, slum upgrading, and maintenance. Although governors manage the local development at district level, in practice they do not have an influential role in urban planning (personal interview with O12). The priority has been, since Naser era, the security as opposed to the urban management efficiency (Personal interviews with N7 and A5). As a result, governors have always been males who, out of which most have come from the army or the security forces. Such example is represented by the latest two governors' appointment in December 2015 and September 2016 when 15 out of 27 and 5 out of 6 governors have been in the army (Oda, 2016; Mohamed, 2016).

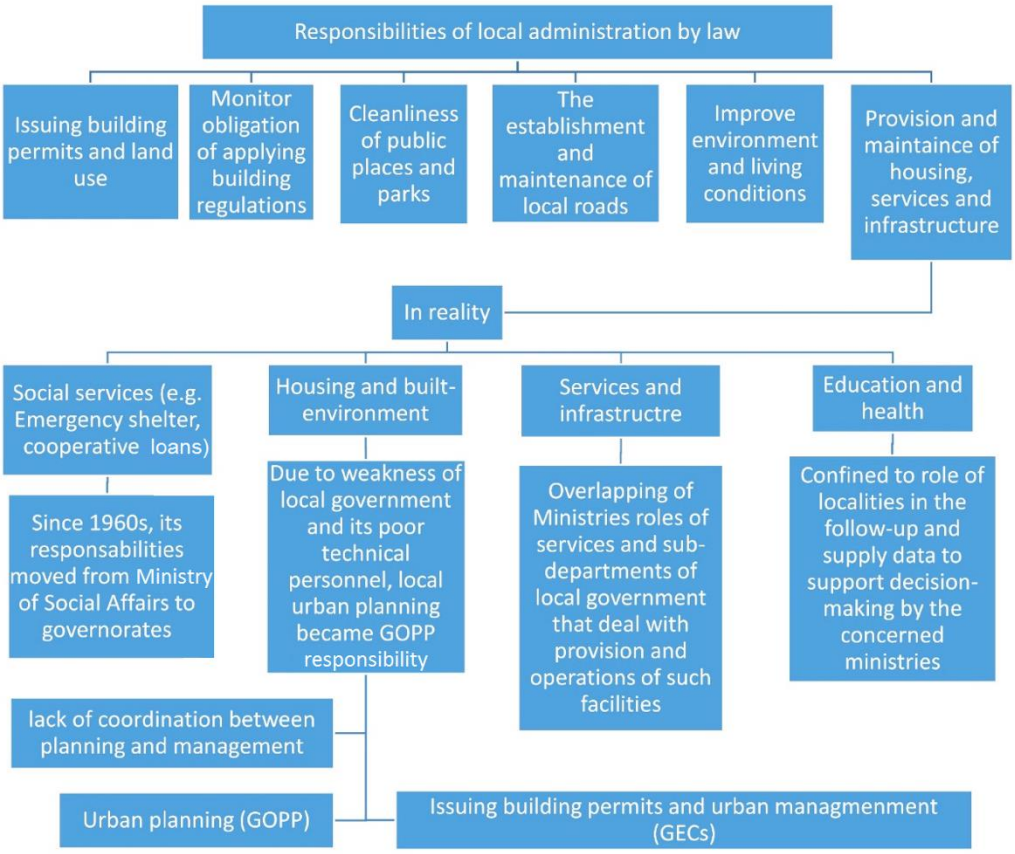
The governor appoints the district chief, who is responsible for implementing policy measures, preparing needs assessments and forwarding budget requests to the governor (Personal interview with O6). Local government has the greatest concentration of bureaucrats who oversee the administration at all levels of municipality, from the governorates down to districts and villages. The local government system started during Naser as a way of gaining control over the country while restricting the powers of the central government ministries and other agencies.

a) Governorate Executive Councils (GECs) and District Presidency

Law No 43 of 1979 and article 188 of 2014 Constitution have established GECs in each governorate, responsible for improving the performance level of services at governorate level, for allocating the governorate budget, and for drafting general rules of managing and the lands, housing and urban development within the governorate. The GEC and district chief delegate tasks in relation to housing, transport, local infrastructure utilities, urbanisation, food supply, healthcare, and educational facilities to district level (Personal interviews with O6, O11 and O14), although what happens in reality is far from any organised administration of governing local level (Own fieldwork, 2015) (Figures C.6, C.7, C.8 and C.9).

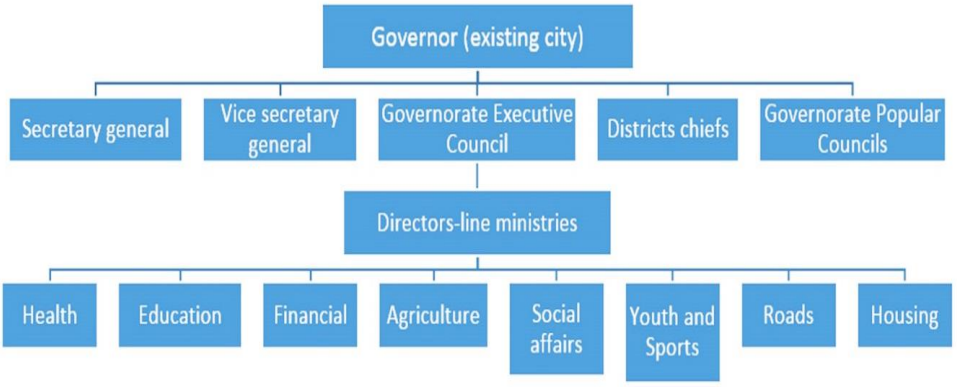
According to the 2008 Unified Construction Law No 119, the engineering departments of local government are responsible for urban planning and local development plans for existing towns and cities. This responsibility is applied at three key planning phases – the Structure Plan, the General Plan, and the Detailed Plan. Although municipalities benefit from sufficient space within the legal framework of urban planning, they cannot accomplish their responsibilities efficiently due to over-centralisation, lack of financial autonomy and shortage of qualified staff (Personal interviews with O6, O11, O12 and N5).

Figure C.6: The responsibilities of local administration by law and in reality



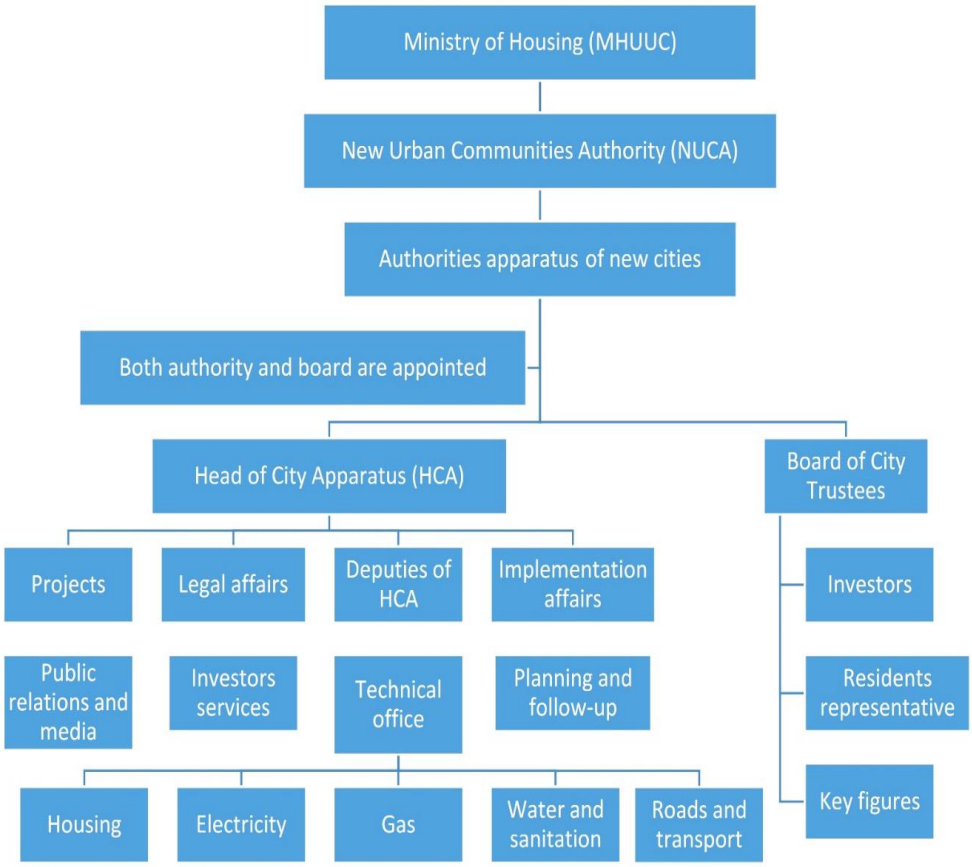
Based on own fieldwork, 2015

Figure C.7: The structure of existing governorate and its GEC



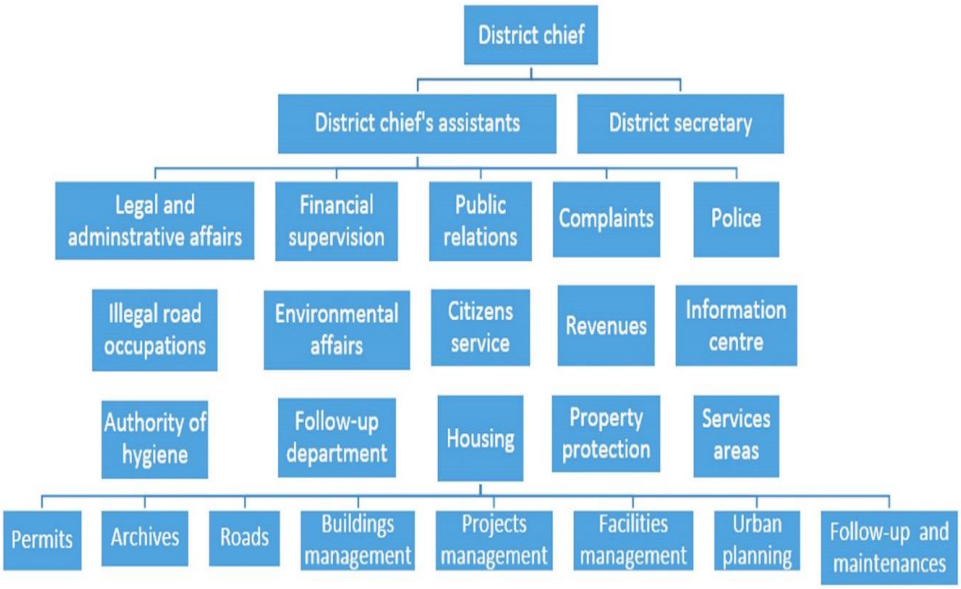
Based on own fieldwork, 2015

Figure C.8: The management structure of new cities



Based on personal interviews and own fieldwork, 2015

Figure C.9: The administrative structure of district management



Based on Personal interviews and own fieldwork, 2015

All these factors have made the local government totally subordinate to the central government, particularly in terms of funding, which

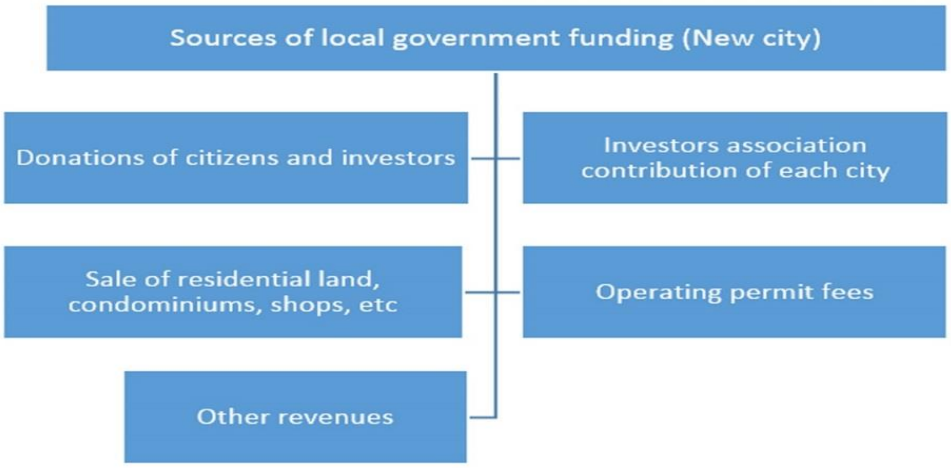
covers over 90% of its budget, thus affecting the autonomy of the decision-making process (Table C.4). To be noted is that the main revenue source of governorates is coming from taxes (e.g. income, customs, sales) which represented in 2015-2016, 67.89% of the total resources of Egypt (Figures C.10 and C.11) (MOF, 2016b).

Table C.4: Governorates' financial dependence on the central government

Governorate	Resources (LE million)		Expenses (LE million)		Deficit (financed by central government)	
	2015/16	2016/17	2015/16	2016/17	2015/16	2016/17
Cairo	684	713	8,647	8,690	7,963	7,977
	7.9%	8.2%	100%	100%	92.1%	91.8%
Giza	372	382	5,617	5,628	5,245	5,246
	6.6%	6.8%	100%	100%	93.4%	93.2%
Qalubia	292	302	5,869	5,873	5,577	5,571
	5%	5.1%	100%	100%	95%	94.9%
Greater Cairo	1,348	1,397	20,133	20,191	18,784	18,791
	6.7%	6.9%	100%	100%	93.3%	93.1%
Rest of governorates	6,528	6,873	103,576	108,137	97,049	101,267
	6%	6.4%	100%	100%	94%	93.6%
All of Egypt's governorates	7,876	8,270	123,709	128,328	115,833	120,058
	6.4%	6.4%	100%	100%	93.6%	93.6%

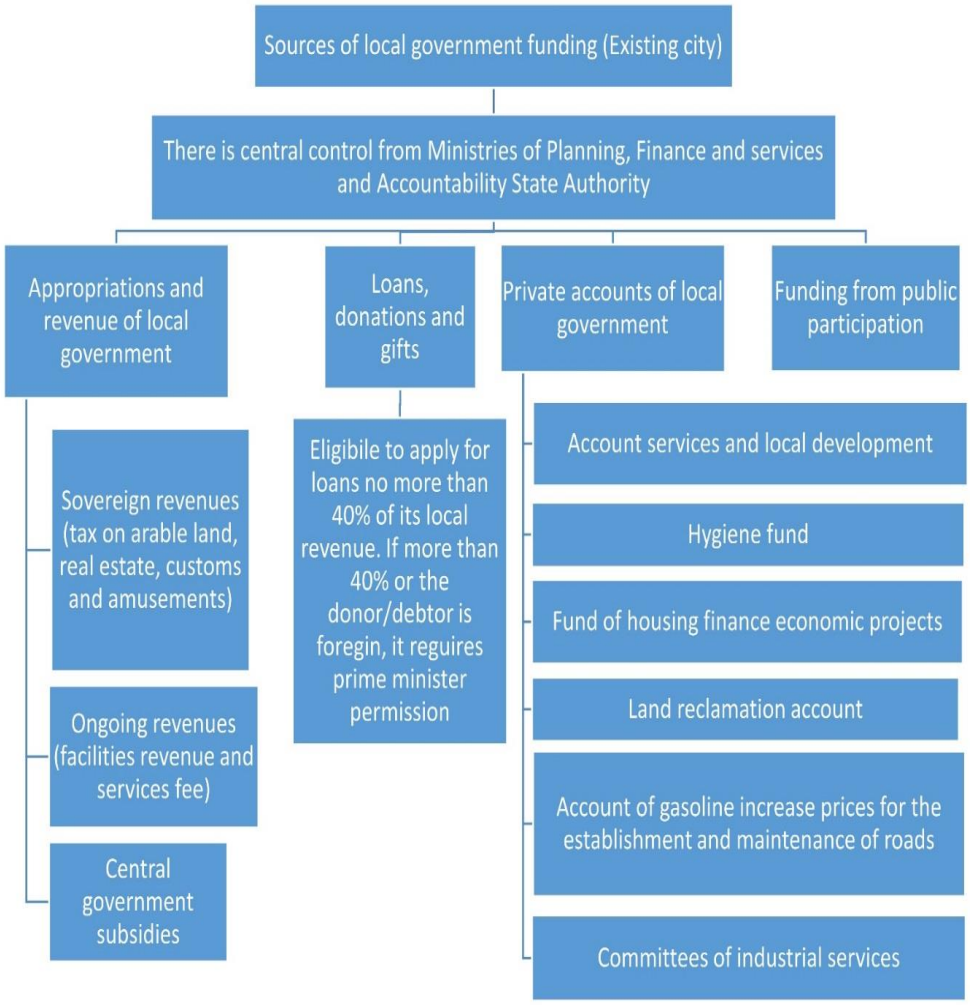
Based on MOF, 2016a

Figure C.10: Governmental fund sources of new city



Based on own fieldwork, 2015

Figure C.11: Governmental fund sources of exist governorate



Based on own fieldwork, 2015

As mentioned before, the appointment system (especially from ex-military and security services) has caused many negative impacts on the working mechanism of central and local government. Firstly, it has prevented the local administration staff from fulfilling their ambition since there is no clear promotion framework. Secondly, differing visions and practices between the leaders of the local administration at various locations result in personalistic development in local communities and thus development plans are linked with officials without any backing from local people. This is the case concerning local development which has spent most of its budget on developments like paving the roads, gardening, infrastructure and lightings, as it is the ultimate approach to meet people needs (Table C.5).

Thirdly, (in)stability of local leaders in their assigned periods depends on contentment of their political superiors and central authority rather than election periods. Fourthly, progress of development to mitigate local problems is very piecemeal. Fifth, the positions are filled with not enough efficient, suitable and capable staff as the assignment system does not produce the most eligible ones and thus lacking the flexibility and objectivity of managing the executive systems (Personal interviews with O1, O6, O11, O16, N5 and P11).

Table C.5: Cairo eastern districts built environment expenses in 2009-2010

District	Paving roads		Lighting		Total
	Expenses	%	Expenses	%	
Misr Aljadida	2,909,624	89.17	353,550	10.83	3,263,174
Alnozha	2,365,000	76.58	723,100	23.42	3,088,100
Eastern Nasr City	3,589,341	70.53	1,500,000	29.47	5,089,341
Western Nasr City	640,000	49.42	655,000	50.58	1,295,000
Almataria	1,384,709	81.93	305,345	18.07	1,690,054
Ain Shams	1,089,735	60.18	721,000	39.82	1,810,735
Elsalam	3,550,000	61.75	2,198,967	38.25	5,748,967
Elmarag	3,000,000	70.08	1,280,900	29.92	4,280,900
Manshiat Nasr	320,000	39.02	500,000	60.98	820,000
Total	18,848,409	69.59	8,237,862	30.41	27,086,271

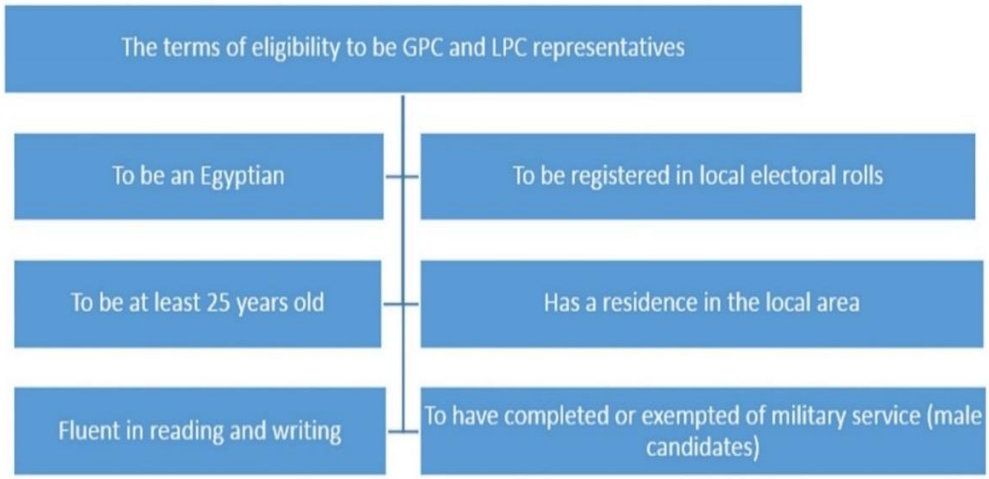
Based on Cairo Governorate 2015

b) Governorate Popular Councils (GPCs) and Local Popular Councils (LPCs)

The 1979 Law No. 43 founded the GPCs in each governorate comprising 14 elected members from each district (Figures C.12 and C.13). Their main responsibilities are to implement and monitor the general local development plans, to direct the activities of Local Popular Councils (LPCs) at district level, and to authorise or reject proposals issued by LPCs. The 2009 Law 119 and 2014 Constitution proposed that each local government should have a local popular council run by elected volunteer members and be responsible for authorising the annual budget of the governorate and proposing taxes, as well as being responsible for the implementation and monitoring of the development projects (Figure C.14). However, the elected members do not exist in the administrative structure of new cities but

a board of trustees composed of appointed investors, landowners and key figures (Figures C.15 and C.16) (Personal interviews with O6, O13, O14 and own fieldwork, 2015).

Figure C.12: The election terms of GPC and LPC representatives



Based on own fieldwork, 2015

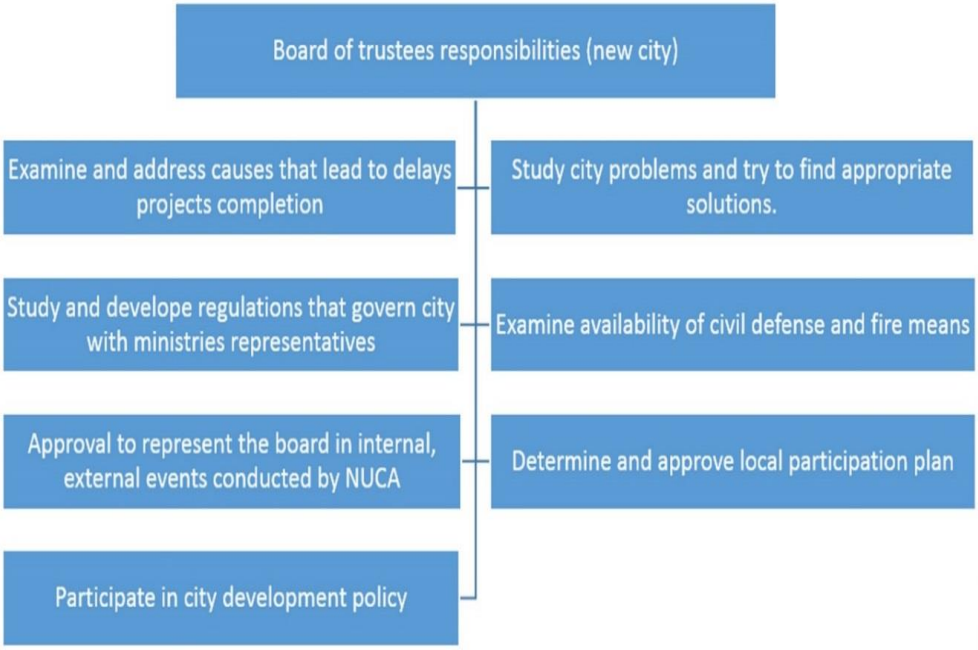
Figure C.13: The hierarchy of elected members of GPCs and LPCs

Based on Personal interview with O6; Piffero, 2009

Figure C.14: Main responsibilities of PLCs

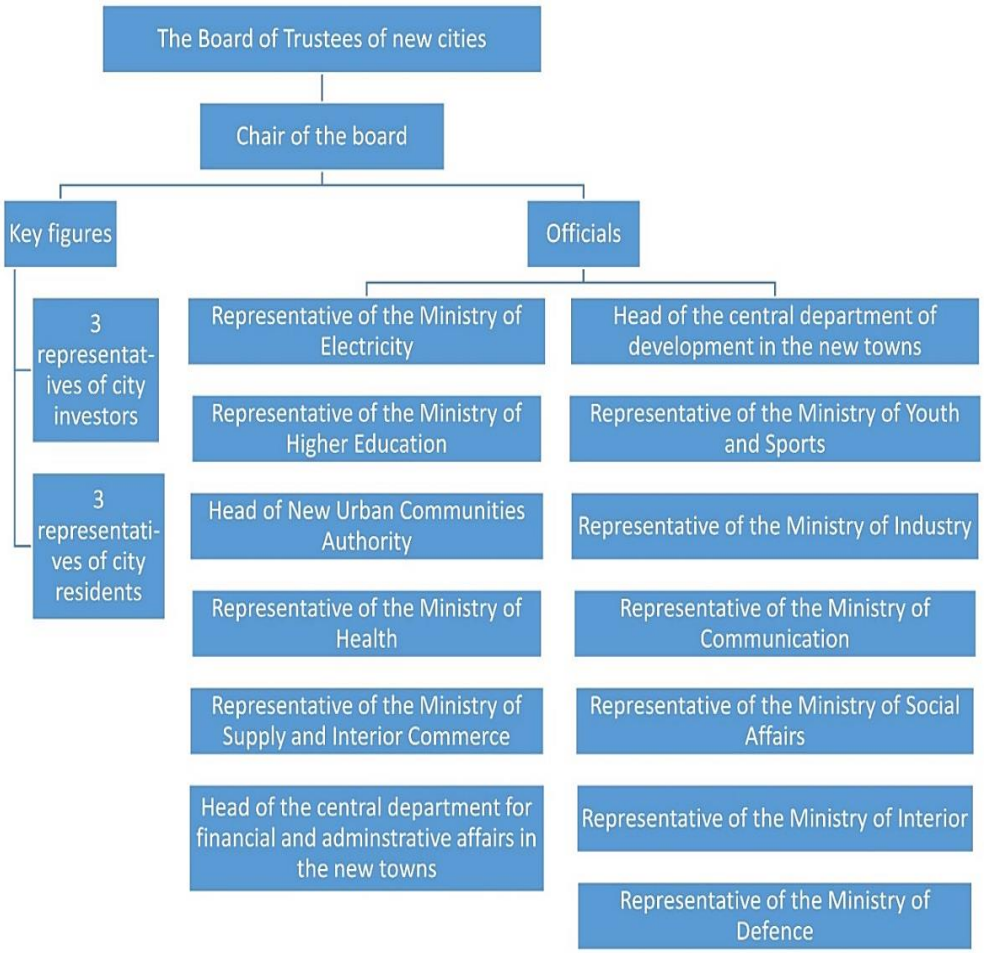
Based on own fieldwork, 2015; Local Administrative Law 43 of 1979

Figure C.15: Main responsibilities of Board of Trustees



Based on own fieldwork, 2015

Figure C.16: The structure of the board of directors in the new towns



Based on own fieldwork, 2015

Starting in 2009, LPCs had encouraged community participation and requested greater financial autonomy from the local governments, but since the local budget is part of the national budget, LPCs can only formulate spending proposals, as opposed to being the budget holders. In terms of the political rights of LPCs, they are only a facade as they do not have administrative and financial power (Table C.5 above), and this calls for a real decentralisation, public participation, and greater autonomy.

During my fieldwork observation, poor and working-class citizens living in informal and old quarters of Greater Cairo have shown greater interest in politics than the middle- and higher-income class, and have claimed that not enough information is being provided regarding the administration of their locality, and have requested access to local government information about development plans. It is noteworthy that the survey used as part of my fieldwork could not interview current PLCs members as both the GPCs and LPCs were dissolved in 2011 during the political unrest. Thus, since June 2011 the governorates have been managed without GPCs or LPCs. The survey has identified that 43% of the interviewed people are aware of the LPCs' existence, out of which 92% are dissatisfied with the LPCs' performance, and none of them were aware of the previous LPC's contacts as they claimed it would have been "*an absolute waste of time as they have their own interests and not the community's*" as one respondent stated.

This perception has been previously seen in another survey run by the 'Information and Decision Support Centre' in 2005 which reported that 52% of the respondents were unaware of the existence of these councils. However, the majority of those who knew about the councils were from rural areas. In reality, the Local Popular Councils in rural areas represent the means by which communication between citizens and the different ministers in the capital is established (Ben Nefissa, 2011). In contrast, the residents of Cairo's administrative selected districts have indicated that they rarely participate in governing their neighbourhoods, in other words, they are located in the bottom of

Arnstein' participation ladder (1969) (Own fieldwork, 2015). This, however, is due to the lack of available information regarding the administrative organisation of Greater Cairo. Most of interviewees have identified linking their homes to electricity, or establishing new schools as most topics they approach the chairperson of the neighbourhood with not knowing that these matters in reality are under different jurisdictions (i.e. Ministry of Electricity and Education).

Thus, Cairo is deteriorating under a weak administrative system caused by communication failures between the organisation and citizens, lack of transparency, and excessive centralisation. The large number of institutions, many with overlapping mandates, avidly compete against each other for access to land as an investment resource. Local governments are unable to cope effectively with the impacts of growth since they depend upon national government ministries for financial support and technical resources. Although many laws have been passed since 2014, no real change has occurred to enable GPCs, LPCs and local residents to gain more power with the aim of improving the community.

Moreover, the number of LPC and GPC representatives does not relate to the population of the respective areas, making an equal number for any local area and thus reducing representation ratio for large settlements. Also, electors do not have sufficient time, political awareness and resources to choose their representatives carefully as sometimes the number of candidates can reach over 100. As a result, they end up with GPC and LPC members who do not specifically represent the local community, beside the fact that the election process itself is influenced by power and money (Personal interviews with O6 and O12; Own fieldwork, 2015).

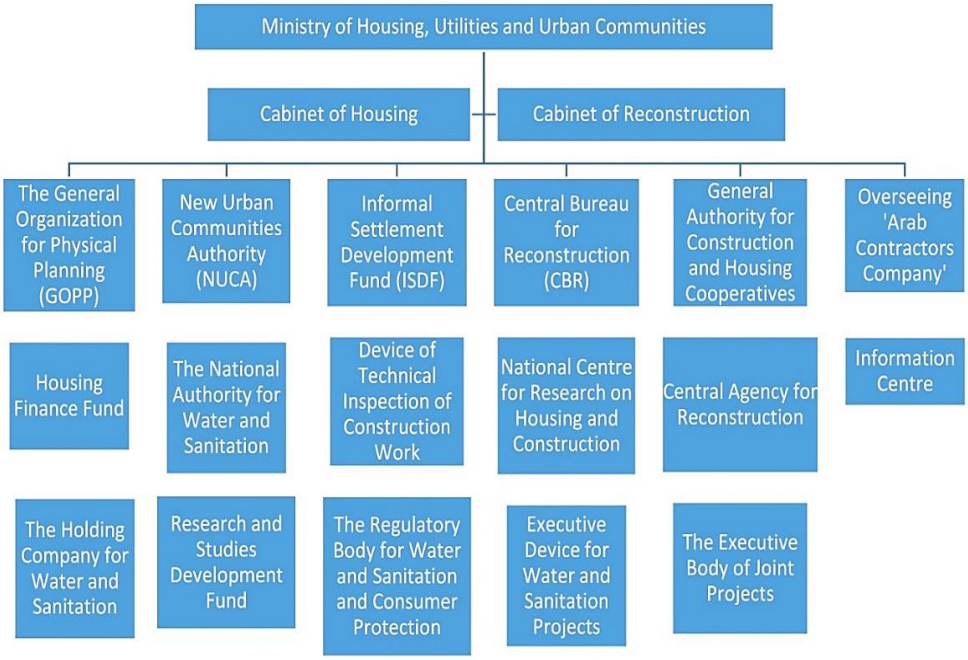
Furthermore, from a citizen's point of view, at the local level there are two elected people who can help them meet their needs, LPC members and members of parliament. Although the latter role is mostly legislative, they are more effective in doing the roles of LPCs in terms

of meeting people's needs by gaining their trust and increasing their publicity to be re-elected. However, this has diminished the role of the former, making them less appreciated by the local people as they seem powerless and thus their election is based on acclamation (Own fieldwork, 2015, Personal interviews with N8, P5 and P8).

C.3. Ministry of Housing, Utilities and Urban Communities (MHUUC)

The 1996 Presidential Decree No. 164 established the MHUUC, was made accountable for the urban development policy in Egypt. Its key responsibilities involve writing urban development plans, monitoring the urban and rural housing programmes at all administrative levels, develop detailed infrastructure plans, and conduct relevant studies (Personal interview with O3). Since the 2011 revolution, there have been four housing ministers (Personal interview with O10). The ministry has 19 sub-divisions which play a significant role in urban planning and management (Figure C.17). The army is heavily represented in MHUUC through military retirees in charge of housing, real estate administration, infrastructure, public works, agricultural improvement, and tourism (Sayigh, 2012; Own fieldwork, 2015). The Ministry struggles to develop a cohesive housing development strategy as a result of competing policies proposed by the different ministerial sub-divisions. It has yet to coordinate all agencies under a shared set of objectives with the aim of providing adequate support to the housing mechanism in Egypt (Personal interviews with O8, A5, N7 and P1).

Figure C.17: The administrative structure of MHUUC

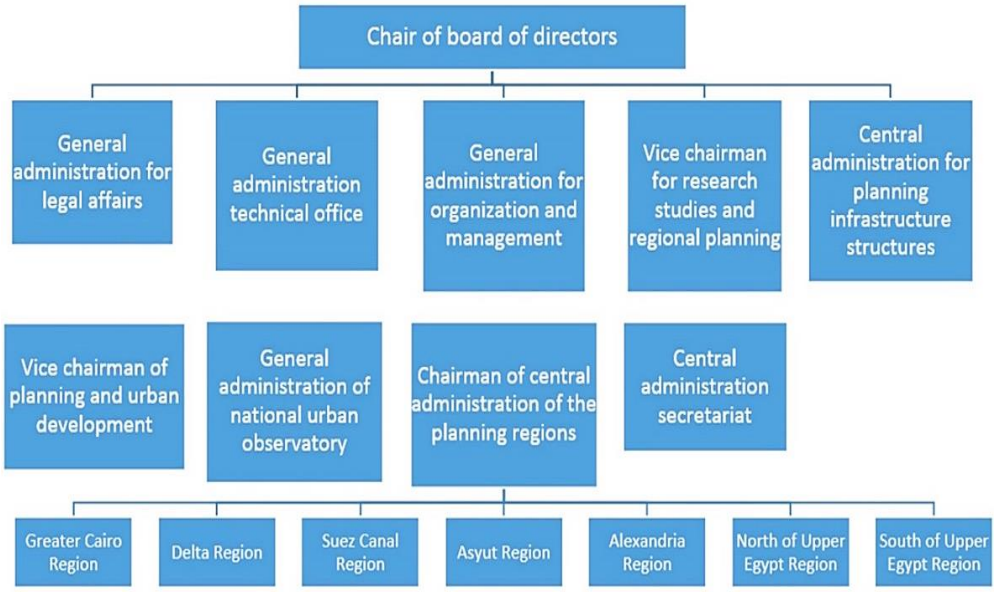


Based on personal interviews and own fieldwork, 2015

C.3.1. The General Organization for Physical Planning (GOPP)

The GOPP was established by Presidential Decree No. 1093 of 1973, later amended by the Urban Planning Law No. 3 of 1982, up to the latest the Unified Construction Law No. 119 of 2008 responsible for creating the development plans for the Egyptian villages and cities, planning the sustainable urban development policies, and prepare the implementation strategies for the proposed programmes at all levels – the national, regional and district. The GOPP also deals with the new urban developments among the existing communities (Figure C.18) (Personal interviews with O3, O8 and O16). For instance, between 2007 and 2008, GOPP has proposed 'tahzim', a form of belting strategy, permitting limited formal urban development on agricultural land surrounding informal areas with the intention of containing further informal growth (Personal interview with O1). However, it has yet to be applied (Personal interview with A2). The GOPP's headquarters are in Cairo, with further regional offices in all seven economic territories.

Figure C.18: The administrative structure of GOPP



Based on personal interviews and own fieldwork, 2015

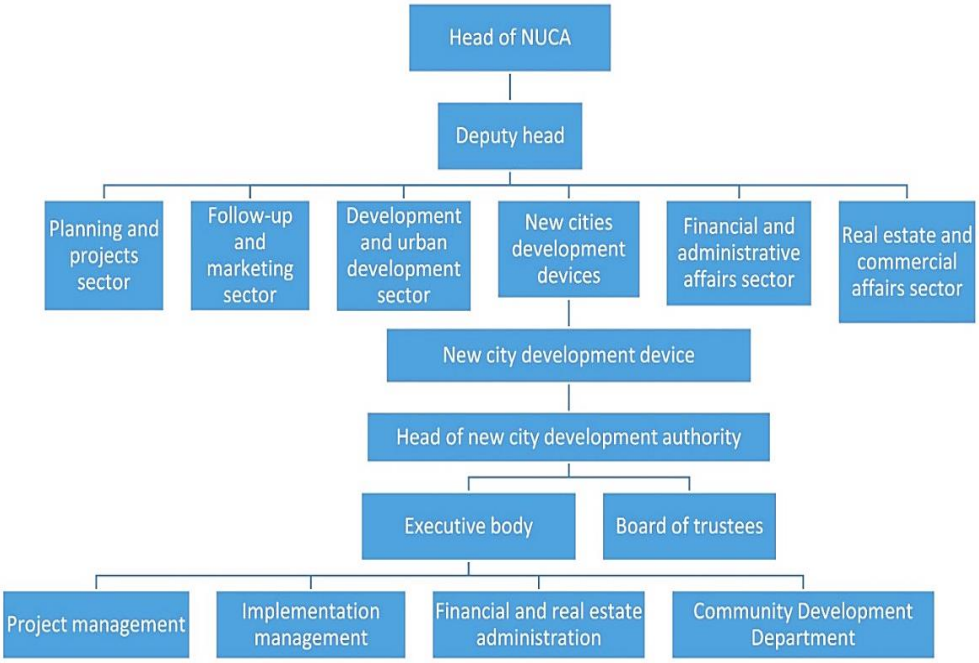
C.3.2. New Urban Communities Authority (NUCA)

The *New Urban Communities Authority* was founded under Law no 59 of 1979 as the economic body responsible for the master plans of the new towns within the framework of the National Development Strategy (Figure C.19). Its key obligations are founding new cities to accommodate population growth, housing supply for all social levels, infrastructure provision, and encourage citizens to relocate in the new cities (Personal interview with O14). NUCA has adopted a centralization control approach over the new towns and has failed to promote autonomous socio-economic and urban development (Personal interview with A1).

Although trading and real estate businesses are a major source of finance in the new towns, they do not have their own department, but rather are a part of NUCA's central department. There is also a need for trained staff required in some of the administrative positions within the organisation to put in place procedures, marketing systems, and data for defining costs (Personal interview with O13). Moreover, heads of new cities development devices lack full authority to manage their

city without NUCA approvals which requires them to keep moving between new cities and NUCA headquarters in Greater Cairo. In other words, it is just an executive arm of NUCA rather than authority of formulating policies (e.g. number of housing units, land use, budget allocation) and decision making on the local level.

Figure C.19: The administrative structure of NUCA



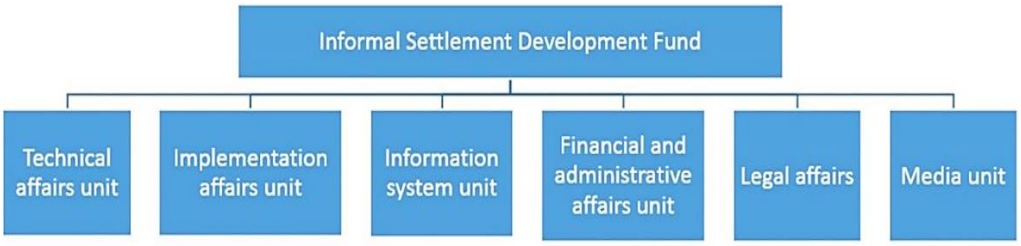
Based on own fieldwork, 2015

C.3.3. Informal Settlement Development Fund (ISDF)

The *Informal Settlement Development Fund* started in 2008 by Presidential decree No 305 under the authority of the Egyptian Prime Minister's Cabinet following the Alduwayqa rockslide in September 2008 which killed 119 people in Manshiat Naser (Figure C.20) (Personal interview with O17; Abdelrazek and Asaad, 2010). Its key objective aimed to redevelop all hazardous informal areas in Egypt, thus it assessed and classified Egypt's informal areas according to their hazard degree. In 2015, the ISDF became a department under MHUUC since its establishment as a ministry (Ministry of Urban Renewal and Informal Settlements - MURIS) in June 2014 (Personal interviews with O4 and O15).

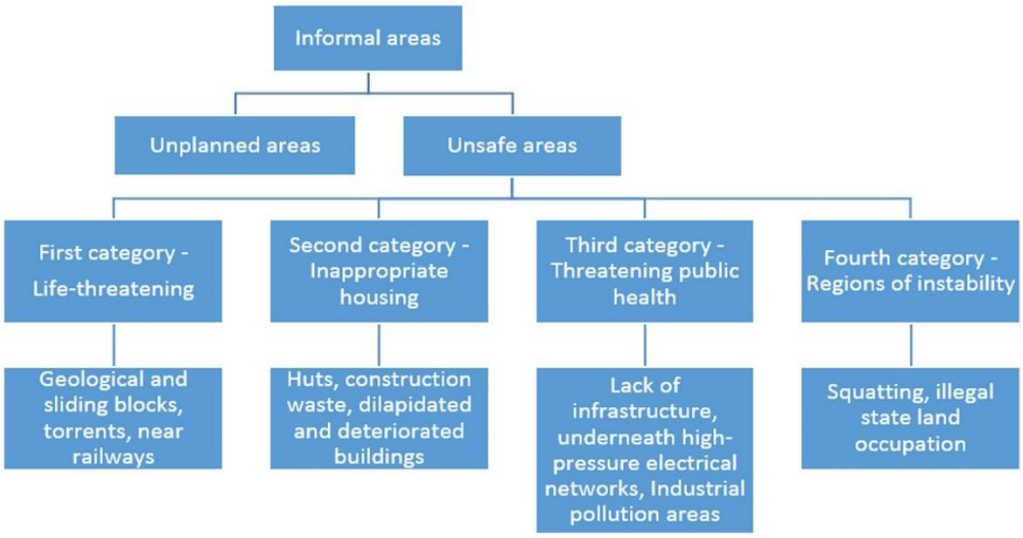
That change was considered as a wrong decision by many observers that would marginalise dealing with the informal areas issue, administratively, physically and morale; and overloading the responsibilities of the already oversized MHUUC ministry (Sabry, 2015b). ISDF categorised informal areas into 2 main categories: unplanned and unsafe areas, where the latter is divided into 4 sub-categories (Figure C.21) (Personal interview with O4). A significant point to be raised is that ISDF has developed only 14% of unsafe areas in the last six years (Personal interview with O17).

Figure C.20: The administrative structure of ISDF



Based on own fieldwork, 2015

Figure C.21: The classification of informal areas according to ISDF



Based on personal interview with O4

C.4. Housing stakeholders

C.4.1. The Egyptian Armed Forces (EAF)

The army has always been the most powerful institution in Egypt, playing a vital role in preserving its national unity and economy (Abdelmalek, 1968; Springborg, 1979; Joya, 2011; Roll, 2016). Since the 1952 revolution, five out of seven presidents have been former army officers, and most policy-making positions in the government are also filled by former military officers (Hashim, 2011a; b). Desert land reclamation empowers the Armed Forces through many laws in the form of the Presidential Decrees. For instance, in 1981 the 'Armed Forces Land Projects Apparatus' (AFLPA) was established by Law No. 531 of 1981 to manage financial compensation received from the state treasury in exchange for desert lands assigned for other economic purposes. According to Law No. 143 of 1981 and Presidential Decree No. 17 of 2001, desert lands are owned by the Ministry of Defence, which now extends to over 90% of Egyptian land (GOGPO, 2016). Additionally, Presidential Decree No. 446 of 2015 has allowed AFLPA to establish companies to generate profits. Based on such legislation, the army uses its vast lands to generate maximum profits.

Over the last few decades, these lands have become quite profitable, particularly when used for housing projects in new cities, industrial cities, touristic resorts, or reclamation. The Presidential Decree No. 57 of 2016, the land (about 70 km²) for the project 'Mohammed Bin Zayed Residential City' and the 'New Administrative Capital' (700 km^2) has been allocated to AFLPA (Alaraby, 2016b) (see 'Master plans' section below). In addition, through Presidential Decree No. 233 of 2016, the lands on both sides (2km on each side) of all Egyptian roads that are presently created or regenerated have been assigned to the Ministry of Defence. This raises the question how these lands can be owned by the Army when they should come under the jurisdiction of the Ministry of Transport? (Personal interviews with N6 and P5). It ought to be understood that the Egyptian Army relies on the real estate

market to obtain a large part of their income (Hamilton *et al*., 2012). Moreover, the EAF also owns vast areas of land on the Red Sea Coast and Nile Delta (Borger and Ball, 2011). Thus, the army plays a significant role in the Egyptian legal system regarding land, and since 1996 building on agricultural land has been a criminal offence dealt with in military courts.

The Ministry of Defence is now the main constructor in the city of Cairo, contributing to MHUUC's '1 Million Housing' project, founding the new towns, relocating the residents from the informal unsafe areas, building national road networks, involved in the land reclamation, expanding the Suez Canal, developing Sinai, and collaborating with international real estate companies based mainly in China and Emirates (Personal interviews with P4, P11, N6, O17). Besides the real estate market, the army also influences the economy through its involvement in construction, agriculture, food, manufacturing, consumer industries, gasoline industries, and tourism (Mitchell, 2002). In terms of its impact on socio-cultural aspects of the society, the military retirees are greatly involved in all levels of society – from provincial governors, village chiefs and managers of state companies, to university staff, research centres, national institutes, hospitals, and media (Rodenbeck, 2010; Own fieldwork, 2015).

It can be concluded that the role of the army in Egypt alternates between its key responsibilities as national security and defence system and its economic motivations. However, military influence expressed as ultimate power within the political leadership circles opens the door to abuse of power, thus creating conflicts of interest between public and national security.

C.4.2. NGOs and civil society

The term 'civil society' goes back to Aristotle's 'Politics' where it refers to a 'community' characterised by a shared set of norms and ethos. Volunteering is often seen as the defining characteristic of the organisations that form civil society, frequently called NGOs. During

President Naser's era, the state controlled civil society by establishing a single Federation of Trade Unions to control all working-class activities. Egyptian civil society started to develop in late 1970s, and by the end of 2008 there were about 30,000 civil society organisations in Egypt (Abdelrahman, 2002; Abdalla, 2008; Hassan, 2011c). In this case, however, these numbers do not embody the strength of civil society as many depend upon governmental subsidies and only few are able to exercise a limited political influence (Personal Interviews with N4 and N8).

Most Egyptian NGOs are restricted by their ineffective organisational structure, absence of regular external audits, lack of strict internal regulations, and administrative inadequacy (Sullivan, 2000). However, there are a few well-established organisations and NGOs like GIZ, the Egyptian American Council, the Egyptian Businessmen Association, the Association of Investors of 10th of Ramadan City that benefit from financial security and powerful influence (Personal interviews with N1, N5 and N7). The state allows some NGOs and foreign aid organisations like GIZ to have an important presence in informal areas to increase people awareness and provide information and infrastructure services (Personal interviews with A5 and O10).

In various informal neighbourhoods, NGOs have been actively involved in offering social, economic, and political support (Dorman, 2009; Hassan, 2011c), filling the gap left by the Local Popular Councils (LPCs) since the 1970s (Myllyla, 2001). These civil society organisations face many obstacles raised by laws aimed at controlling the society in the name of national security like the 1981 'Emergency Law No. 162 of 1952, 1992 'Anti-terror Laws No. 97 of 1992, and No. 84 of 2002 (GOGPO, 2016). According to Law No. 70 of 2017, Article 23, organisations in Cairo struggle to maintain their autonomy, and manage their own money as all local and foreign funds must be approved by the Ministry of Social Affairs and National Authority, which consists of representatives from Army, Police, and other governmental institutions (Personal interview with N6; Ismail, 2017). This study

fieldwork has investigated how Cairenes perceive NGOs (local grassroots/ community based organisations, national organisations or international NGOs). The majority of my interviewees indicated that NGOs and international development organisations visit them on a regular basis but have seen no improvement, causing the citizens to become sceptical about such organisations. In contrast, some people have claimed they learnt more about their rights from NGO visits.

The main idea is that people want something tangible, something NGOs are unable to offer, thus the lack of trust on the citizens' part. Nonetheless, over the last couple of years, some NGOs have taken practical steps to help low- and middle-income people by raising court cases to revoke eviction from two informal areas in Cairo, and starting many online and physical campaigns (e.g. Cairo Observer, Tadamun, and Egyptian Centre for Economic and Social Rights) to unite all people interested in informal areas and housing. This was the case in November 2013, when a group of 55 Egyptian NGOs have submitted a report to the UN Committee for Economic, Social and Cultural Rights (Personal interviews with N7 and N8). To gain people's trust and support, NGOs need to be more strategic in the way they deal with civil society, informing people about their real capabilities as opposed to explaining their ambitions. NGOs' missions in Egypt prove challenging, often being hindered by governmental forces, NGOs' own personal agenda, financial shortages, and people's suspicion of collaborating with the ruling party. To reach a point in which NGOs will make a positive impact on Cairo's housing, they need to adopt a systematic approach in achieving public participation and support.

C.4.3. Planners and architects

Architects and planners are bound to work within two frames of mind: the formal, represented by the building regulations (codes and specifications) and the informal, characterised by the socio-cultural context in which the building will be constructed (social analysis). However, in practice, the formal framework seems to dominate the

informal (Abdelmonem, 2016; Personal interview with P12). The experience has shown that designs promote and reflect professional decisions, while the users (particularly the poor) have no input in the design process. Moreover, in Egypt architectural firms win projects without having experienced or investigated the users' needs (Personal interview with P4). For example, Foster + Partners won the redevelopment competition for 'Maspero Triangle District' (see Chapter 8) (Shenker and Michaelson, 2015), an informal area in central of Cairo, although they have not been exposed to the intricate socio-cultural living experiences the residents. According to Simon (1992) and Easterly (2007), some urban planners and managers lack an appreciation of the underlying socio-cultural issues, thus often proposing decontextualized and inadequate designs. Homes, in particular, require specific skills and awareness of the way residents interact within their socio-cultural context (Abdelmonem, 2016).

The key challenge of the architect or planner is to produce a cultural design in which to merge information and nature (Personal interview with P9). A sustainable and affordable architectural solution of rising to such a challenge is using local materials in creating traditional design elements (i.e. courtyard, wind tower, wooden lattice window) while helping users adapt, extend or upgrade their homes (e.g. New Gourna Project). Nowadays, the professional education determines the formal practice of architecture and planning in Cairo (Personal interview with A1; Simon, 1992; Porter, 2010). Western styles are ingrained in the Egyptian training system, which lacks design principles based on indigenous traditions and heritage (Personal interview with A4). 'International' designs prove inadequate when trying to accommodate Cairo's most disadvantaged groups, and current practices resolve to offer the basic shelter. In contrast, homes became utopian places for the high-income groups (Personal interviews with N8 and A2).

In Old Cairo, architects face two main difficulties: having to rely on contractors' efficiency in building, and people's perceptions about

paying an architect to design their house (Personal interview with P6). My survey has confirmed that residents are sceptical about hiring architects, with one respondent claiming that "*We have been building houses for thousands of years, so what is the use of paying someone to do it instead of us?*" Moreover, the use of architectural services is perceived by the population as having to apply 'strange' building regulations which trigger unnecessary costs. Conversely, some planners and architects, especially official ones, stated during my fieldwork interviews that they know what is best for the residents and seem not to give much attention to any stakeholders. When questioned about public participation and integration of all housing stakeholders in order to allow users to contribute to the development of their own homes, one head of the MHUUC organisation answered "*What will be our jobs to do then?*" However, it is worth noting that planners who hold governmental positions are merely tools of the state's ideology dictated by the president and other power centres in Egypt. This is even clearly stated during some conferences (e.g. Egypt Urban Forum in 2015), meetings and interviews with the Minister of MHUUC, when questioned about the ministry's work.

Presently, Egypt needs well-equipped urban practitioners in order to respond meaningfully and effectively to urbanisation (Personal interview with A3). The gap between what is being learnt in universities and the urban realities needs to be closed (Knox and Masilela, 1989; 1990; Watson and Agbola, 2013). This study argues that the gap is predominantly socio-cultural, following Said's (2003) premise in which Orientalism is seen as the cultural feature of political colonialism. This cultural domination continues to influence academic research and political approaches in the form of a belief that the Orient is un(der)developed, static, and irrational in comparison to the modern, vibrant, and rational West (Simon, 1992; Porter, 2010). Culture and power are directly interrelated as a result of cultural practices being rooted in social and political systems, and are therefore shaped by them (Simon, 2006).

Hence, the new planning of Cairo (i.e. *Cairo 2050*, and *New Administrative Capital*) gives the impression of a universal modern architecture that could be applied anywhere, as opposed to an authentic urban development plan that complies with the socio-cultural and economic factors of Cairenes (see 'Master plans' section below). The discrepancy between the policy and reality in the urban form of Egypt has widened the gap between the urban facilitators and users, reaching the level of blaming each other for the housing crisis. Cairo's journey to urban sustainability starts with learning from the past and planning for the future by embracing the local knowledge and merging it with the appropriate modernist ideas revolutionised by the technological advancements.

Appendix D: The practices of shelter

To understand the housing issue in Cairo, one needs to consider the factors underlying its development. As with other cities in poor countries, Cairo has been facing rapid population growth and urbanisation, which have resulted in increased housing demand. In addition, government regulations, land and housing prices, labour and building materials costs have been mentioned as underlying factors of the housing crisis in Cairo (Aurand, 2010). This appendix identifies and analyses Cairo's housing influential factors and its housing characteristics.

D.1. Housing: Fundamental factors

D.1.1. Demographic factors

One of the principal factors shaping the housing issue in Cairo is the rapid population growth combined with urbanisation. In 2016, Egypt became the most populous Arab country, with more than 90 million inhabitants (CAPMAS, 2016), and a growth rate of 2.4% (Wahba, 2016). However, due to urbanisation, Egypt struggles with a distorted population distribution, in which Greater Cairo accommodates around 25.1% of the entire Egyptian population and 42% of the country's urban population in 22.5 million houses (Saleem, 2016), although it occupies only 1.7% of Egypt's area (Table D.1) (GOPP, 2008). To cope with the effects of urbanisation during the last century, in which Cairo's population has increased more than forty-threefold (Tables D.2 and D.3) (CAPMAS, different census), the city has grown principally in informal settlements (Personal interviews with O15 and N4).

Table D.1: The population and area percentages of Egypt's regions

Region	% of Egypt's population	% of Egypt's area
Cairo	25.1%	1.7%
Alexandria	12.6%	17.9%
Delta	22.1%	1.2%
Suez	10.8%	8.1%
Asyut	5.0%	46.3%
North of upper Egypt	12.4%	4.9%
South of upper Egypt	12.0%	19.9%

Based on GOPP, 2008

Table D.2: The historical population growth of Cairo and Egypt 1882-2016

Year	Greater Cairo		Egypt		Cairo as % of national population
	Population	Growth rate (%)	Population	Growth rate (%)	
1800	200,000	1.0	3,000,000	0.7	6.7
1882	935,256	2.1	6,715,495	2.1	13.9
1897	1,364,916	1.4	9,734,405	1.3	14.0
1907	1,579,646	1.4	11,190,000	1.2	14.1
1917	1,843,872	1.7	12,718,000	1.0	14.5
1927	2,214,834	1.5	14,178,000	1.1	15.6
1937	2,607,584	2.8	15,921,000	1.5	16.4
1947	3,602,729	2.8	18,697,000	2.2	19.3
1960	5,673,252	3.3	26,085,326	2.2	21.7
1966	7,052,945	2.3	30,053,861	1.8	23.5
1976	9,171,512	2.5	36,626,204	2.4	25.0
1986	12,310,039	1.7	48,254,238	1.9	25.5
1996	14,886,335	1.9	59,312,914	1.9	25.1
2006	18,448,076	1.8	72,798,031	2.0	25.3
2016	22,583,000		91,300,198		24.6

Based on CAPMAS, different census

** An official estimation of population that based on sample census. The formal census of 2016 has not been published yet.*

Table D.3: The historical population growth of Greater Cairo 1882-2016

Year	Cairo		Giza		Qaluibia		Total
	population	%	population	%	population	%	
1882	398,683	42.6	265,360	28.4	271,213	29.0	935,256
1897	589,572	43.2	378,884	27.8	396,460	29.0	1,364,916
1907	678,433	42.9	437,013	27.7	464,200	29.4	1,579,646
1917	790,939	42.9	524,352	28.4	528,581	28.7	1,843,872
1927	1,064,567	48.1	591,391	26.7	558,876	25.2	2,214,834
1937	1,312,096	50.3	685,331	26.3	610,157	23.4	2,607,584
1947	2,090,654	58.0	818,168	22.7	693,907	19.3	3,602,729
1960	3,348,779	59.0	1,336,418	23.6	988,055	17.4	5,673,252
1966	4,196,998	59.5	1,645,244	23.3	1,210,703	17.2	7,052,945
1976	5,074,016	55.3	2,416,659	26.3	1,680,837	18.3	9,171,512
1986	6,068,695	49.3	3,725,420	30.3	2,515,924	20.4	12,310,039
1996	6,800,992	45.7	4,784,099	32.1	3,301,244	22.2	14,886,335
2006	8,471,859	45.9	5,724,545	31.0	4,251,672	23.0	18,448,076
2016	9,507,000	42.1	7,817,000	34.6	5,259,000	23.3	22,583,000

Based on CAPMAS, different census

** Greater Cairo is only the urban parts of Giza and Qaluibia.*

The capital has experienced a surge in population migration, particularly during the Naser era as a result of the industrial zones established in and around Cairo (e.g. Helwan, Shubra Alkheima) (Chapters 5 and 6). Consequently, Greater Cairo contains 60% of Egypt's cars, 55% of Egypt's universities, 50% of buses, 46% of its hospital beds, 40% of its pharmacies, and 40% of total private sector employment (The Cities Alliance, 2008). Thus, Cairo is having to accommodate great numbers of migrants and natural population growth in addition to its already large population, leading to a chronic

housing shortage. This, in turn, has triggered unaffordable formal housing and, as a result, a rapid expansion of informal areas. It has been estimated that 600,000 housing units per year are needed to cope with the demand in Greater Cairo due to different reasons, mainly couples getting married (46%) (Table D.4) (USAID, 2008; Almatarneh and Mansour, 2013; Personal interview with O3).

Table D.4: Main reasons of seeking a new housing unit

Main reasons seeking a new housing unit in urban Egypt	Percentage
Getting married	46
Present unit is too small	16
Nuclear family wants to live independently	10
Changing tenure status to ownership	9
Changing tenure status to long-term lease	6
Other reasons	12

*Based on USAID, 2008 (*a survey in urban Egypt with 1,735 interviewees)

D.1.2. Housing stock

The housing stock represents another factor contributing to Cairo's housing crisis. In Egypt, from 1986 to 1996, the annual growth rate (3.6%) of the urban housing stock was nearly twice that of the urban population (1.9%) (CAPMAS, 1986; 1996). On paper, the total urban housing stock exceeded by far the number of urban households. Moreover, a massive 2.19 million units in Greater Cairo were vacant in 2006 (Table D.5) (CAPMAS, 2008a). In 2013, the number of urban housing units in Egypt had reached close to 12.3 million, out of which 3.66 (30%) million units were vacant (NUCA, 2013) (Chapter 5). This reinforces the idea that the urban housing problem in Cairo represents a social and geographical disparity between demand and supply in terms of housing shortage for the disadvantaged groups and an excess for the wealthy groups.

The low- and middle-income groups, incapable to afford formal housing, have had to find shelter in informal settlements. My fieldwork has confirmed that urban residents prefer to add 20 – 30% of the total construction cost in order to bypass the bureaucracy associated with formality due to its costly, complicated and prolonged process (Own fieldwork, 2015; Personal interviews with P5 and P8). In short, there is

a large vacant formal and informal housing stock that could be reintroduced into the market if a suitable framework could be efficiently implemented.

Table D.5: Number of vacant units in Greater Cairo in 2006

Name	Number of vacant units	Total number of units	Percentage of vacant units
Cairo	750,996	3,004,781	24.99%
6th of October	338,264	1,056,637	32.01%
Giza	474,528	1,489,793	31.85%
Qalubia	398,083	1,179,724	33.74%
Helwan	229,002	581,662	39.37%
Total of Greater Cairo	2,190,873	7,312,597	29.96%

Based on CAPMAS, 2006a

D.1.3. Household incomes, poverty and wealth

To further the understanding of Cairo, it becomes imperative to gain knowledge regarding the standards of living and current trends of the Egyptian population. There is a known link between income and characteristic priorities of housing such as house location, secure tenure of building plot and modern standard dwelling (Turner, 1996; Sabry, 2010). The average urban household income in Egypt 2015 has been LE51,200. The annual expenses per person go first to food (34.4%), home (17.5%), health (10%), and education (4.8%) (CAPMAS, 2015). Considering that the average household is 5 people, it implies that an individual would live on about LE27 per day, meaning the urban resident would struggle to ensure the cost of basic living. For that reason, poverty plays a direct role in the amplification of the housing issue, particularly in Cairo. Poverty is another factor that contributes to people's inability to obtain a formal housing unit (Sabry, 2014) (Chapter 5), thus forcing them seek shelter in informal housing (Own fieldwork, 2015). Because of poverty, people are unable to secure land or building materials.

Poverty is also the driving force that pushes people out from rural areas and into the city in search of better income opportunities (Personal interview with N7). A report published in 2011 by WFP, UN and CAPMAS showed that 48.9% of Egyptians are under the upper poverty line (Sabry, 2014). It has been estimated that Egyptians who

fell under the Egyptian poverty line (LE400/month) have reached 27.8% (from 16.7% in 1996) in Egypt, and 18% in Cairo (CAPMAS, 2015).

Moreover, the standard Egyptian poverty line does not match with international standards (Sabry, 2010). As in 2015, the World Bank raised the extreme poverty line from 1.25 to US$1.90/day (Ferreira *et al*., 2015), that would include more than half of Egyptians. Poverty causes increased unemployment and illiteracy rates, greater dependency, and lack of basic services (Own fieldwork, 2015; Personal interviews with N5 and A2). Moreover, the poverty lines in Egypt are set so low that they cannot account for adequate costs of living, particularly in Cairo (e.g. healthcare, housing) (Alarabiya, 2014). Furthermore, in international reports the Egyptian National Poverty Line (ENPL) in terms of shelter has been inaccurately described. For instance, United Nations has described the poverty line in terms of housing as any household of four or more members residing in one room (Gordon, 2005); nevertheless this does not describe adequate housing according to the World Health Organization (e.g. overcrowding) (Ranson, 1991).

However, the ENPL is still being calculated inaccurately, especially when it comes about informal housing (Alshawarby *et al*., 2007). For example, CAPMAS (2016b) has dramatically undercounted the population of informal areas as in the case of ‘Ezbit Alhgana’, informal area in Cairo, tallying only 3,2652 people in 2006, although is one of the world’s greatest informal areas, estimated to house about 2 million people (Davis, 2007; Sabry, 2015b).

Additionally, over the last couple of decades, the gap between the rich and the poor has widened as a result of economic and social deterioration (e.g. floating the Egyptian pound on 3rd of November has reduced the currency’s value by more than half of its previous value) (CBE, 2016a). Corruption is a major factor that has a negative impact especially in housing, especially since it has infiltrated all levels in the

society (Farouk *et al.*, 2011; Personal interviews with N5 and A4). For example, many parcels of serviced land and subsided units are allocated to non-eligible beneficiaries that impedes the efforts to help the targeted beneficiaries (Table D.6) (Personal interview with N7). As briefly outlined above, a mixture of different factors has contributed to the intensification of the housing crisis in Egypt in general, and in Cairo particular. The next section scrutinises the housing components, with a focus on land and constructions industry.

Table D.6: Some cases of land allocation 1995-2004

Holders of favouritism and influence	Allocated land area (million m^2)	Market value per square meter (LE)	The difference between the sold and market value prices (billion LE)
Hisham Moustafa	33.6	750	25.6
A former interior minister	29.4	200	5.9
Magdi Rasikh	9.2	700	6.5
Ahmed Ezz	21	100	2.1
Mohamed Abuelenin	6.3	200	10.3
Mohamed Farid Khamis	33.6	100	3.3
Sawiris	21	100	2.1
Ibrahim Nafeh and Hassan Hamdi	6.3	200	10.3
ELfateem	1	4000	11
Total	161.4	477.7	77.1

Based on Farouk et al., 2011

D.2. Cairo's housing characteristics

According to the 2006 census, in Egypt there were 11.59 million buildings and in Greater Cairo 1.92 million, representing 16.57% of Egypt's building stock (CAPMAS, 2008a). In 1976, 1986 and 1996 Greater Cairo accounted for 30.45%, 30.75% and 16.19% of Egypt's buildings respectively (CAPMAS, 1976; 1986; 1996). Although the percentage remained almost the same in 2006, reaching 16.57% (CAPMAS, 2008a), it still accounts for a high number of Egypt's building stock. There are two possible reasons behind this major drop. The first could be as a result of the various building projects that took place across Egypt, more predominantly in the Delta, North Coast, and the Red Sea regions. The second one, may be due to undercounting of buildings in informal areas. Residential buildings in 2006 accounted for 90.3% of the total building stock in Egypt and 91.1% in Cairo (ibid.) (Table D.7), however such buildings have multiple uses, particularly in Cairo's informal areas, where the ground floor is usually used for commercial activities (e.g. shops, pharmacies, butchers, etc.).

The vast majority of people live in multi-storey blocks of flats, which represent 63.68% of the total residential buildings in Egypt and 97.9% in Cairo (ibid.). These buildings are constructed using reinforced cement frames and brick infill walls, and are considered to be of very high quality. They account for 64.96% of the total residential buildings in Egypt, and 84.19% in Cairo (ibid.). A detailed discussion of how the vast majority live in multi-storey blocks of flats tie in with the high percentage of those who live in informal housing is examined in Chapter 7.

Table D.7: The percentage of buildings in Egypt and Greater Cairo 1976-2006

Year	Buildings	Egypt		Greater Cairo					% of GC to Egypt
				Cairo	Giza	Qalubia	Total		
		No	%				No	%	
1976	Residential	1,358,003	85.8	246,948	104,065	63,606	414,619	86.0	30.5
	Commercial	68,457	4.3	14,294	2,971	2,863	20,128	4.2	29.4
	Other	156,573	9.9	31,749	10,312	5,197	47,258	9.8	30.2
	Total	1,583,033	100	292,991	117,348	71,666	482,005	100	30.45
1986	Residential	1,882,926	80.7	332,250	163,179	90,418	585,847	81.7	31.1
	Commercial	135,425	5.8	27,315	7,523	6,114	40,952	5.7	30.2
	Other	314,809	13.5	56,862	21,084	12,762	90,708	12.6	28.8
	Total	2,333,160	100	416,427	191,786	109,294	717,507	100	30.75
1996	Residential	8,594,644	90.8	415,833	534,489	437,066	1,387,388	90.5	16.1
	Commercial	390,964	4.1	28,985	17,878	17,076	63,939	4.2	16.4
	Other	483,924	5.1	29,688	26,597	25,701	81,986	5.3	16.9
	Total	9,469,532	100	474,506	578,964	479,843	1,533,313	100	16.19
2006	Residential	10,466,231	90.3	594,325	601,405	556,012	1,751,742	91.1	16.7
	Commercial	531,029	4.6	43,134	22,373	23,241	88,748	4.6	16.7
	Other	496,812	5.1	36,109	23,411	22,443	81,963	4.3	13.7
	Total	11,594,072	100	673,568	647,189	601,696	1,922,453	100	16.57

Based on CAPMAS, different census

Average residential mobility is low, with only 4% of households moving every year, and 19% moving within five years. It is also contained as 80% of households who have moved have done so within the boundaries of the same area or city (USAID, 2008). This can be a result of the rent control which locks a large proportion of the housing stock, thus a very limited housing exchange process (see Chapters 5 and 6).

The housing market in Cairo has been judged as relatively malfunctioning due to rent control, which locks 50% of the Egyptian housing units under extremely low rents (USAID, 2008). In 2006, 25.21% of the housing units were rented across Egypt and 35.80% in

Cairo (CAPMAS, 2008a). Due to the fact that rental contracts can be inherited by the descendants of the initial renter, these units remain off-market for decades. Moreover, 6% of the 30% vacant housing units in Cairo were owned by residents living in rent-controlled properties (Makary, 2002). This indicates that the rent-control system is being abused by those who are reluctant to hand over their rented properties while they retain the income capacity to purchase housing. Despite the new Rent Law of 1996, which lifted the ceiling of rent values and amended the period of tenancy, no significant change has been noticed on the housing stock (see Chapter 6). Furthermore, the vacant rent controlled units are kept off-market in order to be passed down within the family due to lack of financing options under the current economic conditions, an insecure housing market and unreliable ownership rights system, and real-estate unaffordability (Own fieldwork, 2015; Personal interviews with A5 and P2).

There are two main types of vacant housing units: plots with finished but vacant units (relocation housing – remote, expensive; or unoccupied because the owner has multiple units), and plots with unfinished buildings (at various construction phases). These vacant units can be found all across Cairo – in both formal and informal areas, in the historic part of Cairo and in the new towns (Own fieldwork, 2015). They do not require any significant cost in order to be kept vacant and off-market as land and property taxes do not exist, and the property tax system is not applied to properties valued below LE2 million (ERETA, 2016). As a result, it has become a common sight to notice (particularly in the new cities) vast empty lands in subdivisions, half-finished buildings, vacant private and public housing. In short, people are confronted by two main issues when trying to obtain a home: lack of access to rent-controlled housing in Cairo though some units are vacant, and the unaffordability of the newly built formal housing in the new cities outside Cairo. This situation leaves them with no option other than living in or contributing to the expansion of the informal sector (Own fieldwork, 2015).

Appendix E: Case studies findings

E.1. Case studies of informal areas: Manshiat Naser and Maspero Triangle

E.1.1. Background information

Age group			Level of education			Years of living in Greater Cairo		
Less than 20	MN	8	Illiterate	MN	32	< 15	MN	14
	MT	11		MT	34		MT	4
20 – 60	MN	55	Foundation	MN	48	15 – 40 years	MN	39
	MT	43		MT	51		MT	16
Over 60	MN	37	University	MN	20	Entire life	MN	47
	MT	46		MT	15		MT	80

E.1.2. Economic and transport information

Employment status		Type of employment		Household monthly income and expenditure on housing (LE)			Means of transport		Commuting time (minutes)	
Unemployed	29	Public	11	Low (< 2,500)	71	21	Walking/cycling	26	< 30	40
	17		6		94	3		63		84
Employed	38	Private	17	Middle (2,500-10,000)	29	16	Public	67	30 – 60	51
	45		18		6	1		29		14
Retired	33	Informal	53	High (>10,000)	0	0	Private	7	<60	9
			64							
	28	Mix	19		0	0		8		2
			12							

P.S. categories of income according to Central bank of Egypt and Mortgage Finance Fund (see Chapter 5).

E.1.3. Household information

Family members		Number of rooms		Number of owned/ rented properties		Tenure of ownership/lease		Reason for owning/ renting more than one property?	
1-2	2	1	31	1	89	Own	81	Investment	5
	7		46		100		29		0
3-5	27	2-4	63	Over 1	11	Old rent	14	Concerns of local market	3
	19		51				71		0
Over 5	71	Over 4	6		0	New rent	5	Family-use in future	92
	74		3				0		0

Housing type		Sharing amenities with others		Housing titling type		Land tenure type	
Room/hut	31	Yes	38	Officially registered	0	Legally	0
	46		79		0		0
House/apartment	69	No	62	Legal title, unregistered	81	Quasi-legally	22
					96		96
	54		21	Illegal ownership	19	Squatting	78
					4		4

P.S. 1- officially/ legally registered at Ministry Justice - Real Estate Publicity Department (REPD); unregistered hosing Legal title/Quasi-legally land tenure: *Orfi* contracts (see Chapters 6 and 7).

Property was built through		Reasons to live in this area		Participant's general experience in this area		Sense of belonging		Acknowledge of Neighbourhood's rights and responsibilities	
Legal procedure	0	Resettlement	5	Very satisfied	3	Yes	68	Yes	96
	51		20		38				
Quasi-legal procedure	0	Social network	54	Satisfied	9				
			17		25		92		100
	0	Improved lifestyle	16	Indifferent	2				
			5		6				
Illegal procedure	100	Affordability and accessibility	25	Unsatisfied	59	No	32	No	4
					20				
	49		58	Very unsatisfied	27		8		0
					11				

The most noticeable problems in this area		The responsible for these problems?		Acknowledge the name of these people (% out of 100 each)		Do you vote	
Insecurity of housing/ land	61	Central/local government	61	President	97	Yes	14
	82		78		99		
Housing problems	10	Local residents	4	Central government	49		7
	9		0		61		
Poor services and infrastructure	27	Developers	35	Local government	8	No	86
	8				13		
Living conditions	2		22	People's representative	3		93
	1				1		

P.S. People's representative are the GPCs and LPCs (see Chapter 6).

Participant is living in old Greater Cairo				Participant is living in New Cities of Greater Cairo (not the case)			
New Cities are good places to live in		Obstacles to relocate there (% out of 100 each)		New Cities are good places to live in		Reasons for relocation (% out of 100 each)	
Yes	17	Financial	93	Yes		Own property	
			100				
		Transport and Employment	82			Adequate public and private space	
			99				
	4	Lack of affordable services	53			Better infrastructure and services	
			96				
No	83	Family attachments	77	No		Better standard of living	
			68				
	96	Different social capital style	47				
			88				

E.1.4. Housing policy and participation information

Acknowledge of the right to housing		Acknowledge of how to obtain a governmental housing		Previous housing experience with local administration		If yes, what was your experience about (% out of 100 each)		How was your experience	
Yes	41	Yes	12	Yes	29	Developing the area/ Upgrading the house	68	Very satisfied	0
							82		0
	89		7		74	Building or claiming land	84	Satisfied	7
									0
							0	Indifferent	18
									4
No	59	No	88	No	69	Complaint and disputation	26	Unsatisfied	17
									24
	11		93		26		31	Very unsatisfied	58
									72

Acknowledge of public participation		Previous experience of participation		Reasons of not participating (% out of 100 each)		Attempt of taking actions to mitigate local problems	
Yes	53	Yes	24	Political and security concerns	92	None	29
	87		35		27		10
No	47	No	76	Unclear participation mechanism	70	Complaints to local and central government	51
					11		47
	23		65	Indifferent/ no time	85	Joining NGO/Civil society	20
					62		43

E.1.5. Infrastructure and services information

Infrastructure and services issues, if any (% of 100 each)		Officially complained about these infrastructure		Any responses		Sorting waste for recycle	
Lack/ poor pedestrian routes and traffic congestion	97	Yes	29	Yes	7	Yes	49
	13						
Lack/ poor utilities services	86		42		0		0
	93						
Absence of fire system and extinguisher	91	No	71	No	93	No	51
	97						
Educational and medical services	74		58		100		100
	89						

E.1.6. Urban and housing sustainability information

Acknowledge of urban sustainability		Your area is developed in a sustainable way		Opinion of living in a house built using local material, traditional architecture and adaptive to climate		Having solar panels and recycle water tank in your property		If no, would you consider installing them in your property		If no, reasons to not consider it (% of 100 each)	
Yes	72	Yes	0	Yes	42	Yes	0	Yes	0	Financial	98
											100
	0		NA		87		0		0	Technical	92
											96
No	28	No	100	No	58	No	100	No	100	Unsightly	0
											0
	100		NA		13		100		100	Market accessibility	40
											0

E.2. Case studies of governmental housing projects: Mubarak Youth Programme and Future Housing Programme

E.2.1. Background information

Age group			Level of education			Years of living in Greater Cairo		
Less than 20	MYP	3	Illiterate	MYP	19	< 15	MYP	5
	FHP	5		FHP	22		FHP	8
20 – 60	MYP	86	Foundation	MYP	13	15 – 40 years	MYP	10
	FHP	79		FHP	9		FHP	14
Over 60	MYP	11	University	MYP	68	Entire life	MYP	85
	FHP	16		FHP	69		FHP	78

E.2.2. Economic and transport information

Employment status		Type of employment		Household monthly income and expenditure on housing (LE)			Means of transport		Commuting time (minutes)	
Unemployed	9	Public	6	Low (< 2,500)	54	123	Walking/cycling	7	< 30	11
	3		7		63	94		13		3
Employed	82	Private	24	Middle (2,500-10,000)	46	135	Public	81	30 – 60	18
	95		19		37	94		79		14
Retired	9	Informal	9	High (>10,000)	0	0	Private	12	<60	71
			6							
	2	Mix	61		0	0		8		83
			68							

P.S. categories of income according to Central bank of Egypt and Mortgage Finance Fund (see Chapter 5).

E.2.3. Household information

Family members		Number of rooms		Number of owned/ rented properties		Tenure of ownership/lease		Reason for owning/ renting more than one property?	
1-2	4	1	0	1	63	Own	72	Investment	43
	6		0		58		64		38
3-5	78	2-4	63	Over 1	37	Old rent	0	Concerns of local market	0
	81		74				0		0
Over 5	18	Over 4	37		52	New rent	28	Family-use in future	57
	13		26				36		62

Housing type		Sharing amenities with others		Housing titling type		Land tenure type	
Room/hut	0	Yes	0	Officially registered	72	Legally	100
	0		0		64		100
House/apartment	100	No	100	Legal title, unregistered	28	Quasi-legally	0
					36		0
	100		100	Illegal ownership	0	Squatting	0
					0		0

P.S. 1- officially/ legally registered at Ministry Justice - Real Estate Publicity Department (REPD); unregistered hosing Legal title/Quasi-legally land tenure: *Orfi* contracts (see Chapters 6 and 7).

Property was built through		Reasons to live in this area		Participant's general experience in this area		Sense of belonging		Acknowledge of Neighbourhood's rights and responsibilities	
Legal procedure	100	Resettlement	21	Very satisfied	7	Yes	12	Yes	43
	100		11		38				
Quasi-legal procedure	0	Social network	2	Satisfied	29				
			3		25		7		38
	0	Improved lifestyle	74	Indifferent	31				
			85		6				
Illegal procedure	0	Affordability and accessibility	3	Unsatisfied	28	No	88	No	57
					20				
	0		1	Very unsatisfied	5		93		62
					11				

The most noticeable problems in this area		The responsible for these problems?		Acknowledge the name of these people (% out of 100 each)		Do you vote	
Insecurity of housing/ land	0	Central/local government	76	President	100	Yes	36
	0		66		100		
Housing problems	36	Local residents	13	Central government	39		55
	49		18		43		
Poor services and infrastructure	24	Developers	11	Local government	4	No	64
	22				9		
Living conditions	40		16	People's representative	0		45
	29				0		

Participant is living in old Greater Cairo (not the case)				Participant is living in New Cities of Greater Cairo (not the case)			
New Cities are good places to live in		Obstacles to relocate there (% out of 100 each)		New Cities are good places to live in		Reasons for relocation (% out of 100 each)	
Yes		Financial		Yes	53	Own property	98
							94
		Transport and Employment				Adequate public and private space	13
							9
		Lack of affordable services			39	Better infrastructure and services	57
							73
No		Family attachments		No	47	Better standard of living	73
		Different social capital style			61		58

E.2.4. Housing policy and participation information

Acknowledge of the right to housing		Acknowledge of how to obtain a governmental housing		Previous housing experience with local administration		If yes, what was your experience about (% out of 100 each)		How was your experience	
Yes	52	Yes	100	Yes	92	Developing the area/ Upgrading the house	80	Very satisfied	0
							93		0
	63		100		95	Building or claiming land	0	Satisfied	0
									4
							0	Indifferent	38
									29
No	48	No	0	No	8	Complaint and disputation	42	Unsatisfied	47
									32
	37		0		5		58	Very unsatisfied	15
									35

Acknowledge of public participation		Previous experience of participation		Reasons of not participating (% out of 100 each)		Attempt of taking actions to mitigate local problems	
Yes	24	Yes	0	Political and security concerns	19	None	37
	35		0		31		18
No	76	No	100	Unclear participation mechanism	83	Complaints to local and central government	54
					92		69
	65		100	Indifferent/ no time	58	Joining NGO/Civil society	9
					42		13

E.2.5. Infrastructure and services information

Infrastructure and services issues, if any (% of 100 each)		Officially complained about these infrastructure		Any responses		Sorting waste for recycle	
Lack/ poor pedestrian routes and traffic congestion	0	Yes	17	Yes	4	Yes	0
	0						
Lack/ poor utilities services	49		31		12		0
	58						
Absence of fire system and extinguisher	0	No	83	No	96	No	0
	0						
Educational and medical services	63		69		88		0
	52						

E.2.6. Urban and housing sustainability information

Acknowledge of urban sustainability		Your area is developed in a sustainable way		Opinion of living in a house built using local material, traditional architecture and adaptive to climate		Having solar panels and recycle water tank in your property		If no, would you consider installing them in your property		If no, reasons to not consider it (% of 100 each)	
Yes	3	Yes	0	Yes	57	Yes	83	Yes	19	Financial	94
											98
	2		0		49		91		12	Technical	42
											59
No	97	No	100	No	43	No	17	No	81	Unsightly	3
											7
	98		100		51		9		88	Market accessibility	5
											4

E.3. Case studies of gated communities: Beverly Hills and Elrehab

E.3.1. Background information

Age group			Level of education			Years of living in Greater Cairo		
Less than 20	BH	7	Illiterate	BH	0	< 15	BH	0
	ER	9		ER	0		ER	0
20 – 60	BH	76	Foundation	BH	0	15 – 40 years	BH	0
	ER	82		ER	0		ER	0
Over 60	BH	17	University	BH	100	Entire life	BH	100
	ER	9		ER	100		ER	100

E.3.2. Economic and transport information

Employment status		Type of employment		Household monthly income and expenditure on housing (LE)			Means of transport		Commuting time (minutes)	
Unemployed	6	Public	2	Low (< 2,500)	0	0	Walking/cycling	0	< 30	0
	9		7		0	0		0		0
Employed	77	Private	98	Middle (2,500-10,000)	13	4,000	Public	0	30 – 60	65
	82		93		18	3,100		0		48
Retired	17	Informal	0	High (>10,000)	87	6,500	Private	100	<60	35
			0							
	9	Mix	0		82	4,500		100		52
			0							

P.S. categories of income according to Central bank of Egypt and Mortgage Finance Fund (see Chapter 5).

E.3.3. Household information

Family members		Number of rooms		Number of owned/ rented properties		Tenure of ownership/lease		Reason for owning/ renting more than one property?	
1-2	32	1	0	1	15	Own	100	Investment	53
	44		0		26		100		42
3-5	51	2-4	39	Over 1	85	Old rent	0	Concerns of local market	0
	47		27				0		0
Over 5	7	Over 4	61		74	New rent	0	Family-use in future	47
	9		73				0		48

Housing type		Sharing amenities with others		Housing titling type		Land tenure type	
Room/hut	0	Yes	0	Officially registered	100	Legally	100
	0		0		100		100
House/apartment	100	No	100	Legal title, unregistered	0	Quasi-legally	0
					0		0
	100		100	Illegal ownership	0	Squatting	0
					0		0

P.S. 1- officially/ legally registered at Ministry Justice - Real Estate Publicity Department (REPD); unregistered hosing Legal title/Quasi-legally land tenure: *Orfi* contracts (see Chapters 6 and 7).

Property was built through		Reasons to live in this area		Participant's general experience in this area		Sense of belonging		Acknowledge of Neighbourhood's rights and responsibilities	
Legal procedure	100	Resettlement	0	Very satisfied	83	Yes	94	Yes	100
	100		0		78				
Quasi-legal procedure	0	Social network	30	Satisfied	8				
			39		15		97		100
	0	Improved lifestyle	65	Indifferent	9				
			52		7				
Illegal procedure	0	Affordability and accessibility	5	Unsatisfied	0	No	6	No	0
					0				
	0		9	Very unsatisfied	0		3		0
					0				

The most noticeable problems in this area		The responsible for these problems?		Acknowledge the name of these people (% out of 100 each)		Do you vote	
Insecurity of housing/ land	0	Central/local government	0	President	0	Yes	64
	0		0		0		
Housing problems	0	Local residents	0	Central government	0		86
	0		0		0		
Poor services and infrastructure	0	Developers	0	Local government	0	No	36
	0				0		
Living conditions	0		0	People's representative	0		14
	0				0		

P.S. People's representative are the GPCs and LPCs (see Chapter 6).

Participant is living in old Greater Cairo (not the case)				Participant is living in New Cities of Greater Cairo (not the case)			
New Cities are good places to live in		Obstacles to relocate there (% out of 100 each)		New Cities are good places to live in		Reasons for relocation (% out of 100 each)	
Yes		Financial		Yes	100	Own property	100
							100
		Transport and Employment				Adequate public and private space	92
							87
		Lack of affordable services			100	Better infrastructure and services	97
							95
No		Family attachments		No	0	Better standard of living	100
		Different social capital style			0		100

E.3.4. Housing policy and participation information

Acknowledge of the right to housing		Acknowledge of how to obtain a governmental housing		Previous housing experience with local administration		If yes, what was your experience about (% out of 100 each)		How was your experience	
Yes	21	Yes	0	Yes	38	Developing the area/ Upgrading the house	8	Very satisfied	0
							26		0
	35		0		32	Building or claiming land	42	Satisfied	0
									0
							18	Indifferent	11
									3
No	79	No	100	No	62	Complaint and disputation	50	Unsatisfied	52
									81
	65		100		68		56	Very unsatisfied	37
									16

Acknowledge of public participation		Previous experience of participation		Reasons of not participating (% out of 100 each)		Attempt of taking actions to mitigate local problems	
Yes	100	Yes	100	Political and security concerns	0	None	0
	100		100		0		0
No	0	No	0	Unclear participation mechanism	0	Complaints to local and central government/ authority	100
					0		100
	0		0	Indifferent/ no time	0	Joining NGO/Civil society	0
					0		0

E.3.5. Infrastructure and services information

Infrastructure and services issues, if any (% of 100 each)		Officially complained about these infrastructure		Any responses		Sorting waste for recycle	
Lack/ poor pedestrian routes and traffic congestion	0	Yes	0	Yes	0	Yes	0
	0						
Lack/ poor utilities services	0		0		0		0
	0						
Absence of fire system and extinguisher	0	No	0	No	0	No	100
	0						
Educational and medical services	0		0		0		100
	0						

E.3.6. Urban and housing sustainability information

Acknowledge of urban sustainability		Your area is developed in a sustainable way		Opinion of living in a house built using local material, traditional architecture and adaptive to climate		Having solar panels and recycle water tank in your property		If no, would you consider installing them in your property		If no, reasons to not consider it (% of 100 each)	
Yes	26	Yes	100	Yes	2	Yes	3	Yes	34	Financial	0
											0
	19		100		6		5		12	Technical	0
											0
No	74	No	0	No	98	No	97	No	66	Unsightly	63
											46
	81		0		94		95		88	Market accessibility	37
											54