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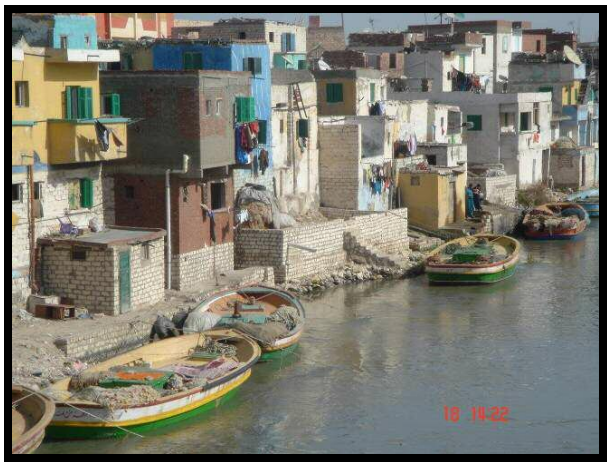
ARAB REPUBLIC OF EGYPT

TOWARDS AN URBAN SECTOR STRATEGY



THE WORLD BANK

June 2008

Report No.: 44506-EG

Arab Republic of Egypt

Urban Sector Note

VOLUME TWO

TOWARDS AN URBAN SECTOR STRATEGY

JUNE, 2008

Sustainable Development Department
Middle East and North Africa Region

Document of the World Bank

CURRENCY EQUIVALENTS

(Exchange Rate Effective June, 2008)

Currency Unit	=	Egyptian Pound (LE)
Egyptian Pounds 5.33	=	US$1

ABBREVIATIONS AND ACRONYMS

BOT	Build, Operate, and Transfer
CAPMAS	Central Agency for Public Mobilization and Statistics
CDA	Community Development Association
CDS	City Development Strategy
EEAA	Egyptian Environmental Affairs Agency
ERA	Egyptian Railways Authority
ESA	Egyptian Survey Authority
GDP	Gross Domestic Product
GOE	Government of Egypt
GOPP	General Organization for Physical Planning
GTZ	German Technical Cooperation
LE	Livres Egyptiens
MENA	Middle East and North Africa
MFA	Mortgage Finance Authority
MHUUD	Ministry of Housing, Utilities, and Urban Development
MOA	Ministry of Agriculture
MOF	Ministry of Finance
MOI	Ministry of Investment
MOLD	Ministry of Local Development
NCUPD	National Council for Urban Planning and Development
NHP	National Housing Program
NGO	Non-governmental Organization
NUCA	New Urban Communities Authority
USAID	United States Agency for International Development
Ziman	The official boundary between agricultural and desert land

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Acknowledgements

This note was prepared by David Sims (Urban Planner and Economist, Consultant), with inputs from Ahmed Eiweida, Sr. Urban Management Specialist, Task Team Leader (MNSSD). The note incorporates analysis and findings made in three background papers prepared by David Sims in January through May 2008, with support from the General Organization for Physical Planning (GOPP), Ministry of Housing, Utilities and Urban Development. The team was ably assisted by Laila Kotb (MNC03) and Enas Shaaban (MNSSD).

The team would especially like to express its gratitude to the senior officials from government and donor agencies, and members of academia who graciously provided their time, documentation, data, and expert feedback and guidance in the process of preparing this note. The team is particularly indebted to Dr. Mostafa Madbouli, Chairman of the General Organization for Physical Planning (GOPP).

Peer Reviewers including Maria Emilia Freire (Sr. Advisor, FEU), and Marisela Montoliu Munoz (Senior Adviser, FEU), Head of Spatial and Local Development Team, provided valuable feedback to strengthen this note. Emmanuel Mbi (Country Director, MNCO3) chaired the concept note review meeting and provided important guidance to the team that helped focus the resulting Policy Note. Xavier Divector (Country Program Coordinator, MNCA3) chaired the decision review meeting and provided guidance to the team. The Policy Note was issued under the guidance of MNSSD Management, Jonathan Walters (Acting Sector Manager, Urban and Transport).

SECTION 1: INTRODUCTION AND EXECUTIVE SUMMARY

1.1 Background

1. In June 2007, an Egypt Urban Sector Update was prepared by the World Bank, under Economic Sector Work (ESW), which assessed in detail the many aspects of urban development in Egypt, including a review of urban related material from a number of sources. This update was revised in May 2008 to include important findings from the 2006 Census of Egypt, which was only published in late 2007. It has been incorporated into the present Egypt Urban Sector Note as Volume One. The 2007 Egypt Urban Sector Update concluded with a set of conclusions and recommendations for further studies and actions.

2. Based on these recommendations, further investigations were carried out over the following year (FY08). The results of this work, including refined conclusions and recommendations, have been packaged in the present volume (Volume Two), called "Towards an Urban Sector Strategy".

Work carried out in Volume II focuses on four main themes:[1]

(1) Appropriate planning and building standards for urban development (Section 2);

(2) Peri-urban areas as emerging urban dimension (Section 3);

(3) The strengths and weakness of new towns as an important element in urban development policies (Section 4); and

(4) Informal urban development in Egypt (Section 5).

3. In addition, an effort has been made to track certain urban issues for which there has been significant movement over the last year (Section 6). In this way policy makers in Egypt (main audience of this report) can be brought up to date on the evolving urban challenges in Egypt and also on economic factors which have an impact upon policies.

4. This volume concludes with a set of recommendations for capitalizing on the current momentum in the urban sector in Egypt and pushing forward in a number of areas and themes (Section 7).

[1] These themes were originally produced as separate concept notes over the period January through April 2008. They have been discussed with counterparts, and modified for this report incorporating feedback from stakeholders.

1.2 Objectives

5. The objective of this Volume is to advance the understanding and policy framework of Egypt's urban sector, and thus move further towards an urban sector strategy in what is a complex and changing policy environment.

6. The present Volume cannot be considered a comprehensive urban comprehensive strategy. There are numerous complex issues that need attention, many of which involve other economic sectors. And as will be apparent from this Volume, there are many areas of legislative and policy reform which are just now gathering pace in Egypt, which affect urban development. These changes further add to the complexity.

7. In a way, any urban sector strategy in Egypt must start largely from scratch. Egypt has had decades of an asymmetrical urban policy which concentrated on new towns and desert development and which largely ignored progressive urban growth in the Nile Valley and the dynamics of urbanization around existing towns and cities. The State, as owner of desert land, practiced a rigid supply-side land and budgetary allocation model to encourage urban development in the desert. Not only has this approach proven to be seriously inefficient in itself, it has let atrophy norms and practices which most countries use to guide and plan for massive urbanization in and around existing urban agglomerations. Since 2004, the GOE has begun to realize that new approaches are needed which are realistic and which aim to influence underlying urban dynamics. Much work remains to be done, and it is hoped that this Note will advance both the understanding of urban dynamics and provide a structure or framework for the complex efforts which need to be undertaken in the coming years.

1.3 Main Findings and Recommendations

8. In Volume One, a number of recommendations were proposed to improve the approach towards the urban sector in Egypt. These are grouped as clusters or themes and included an action plan matrix. Table below presents a summary of how and to what extent they have been achievements, or at least movements in addressing these themes over the last year and what still needs to be done. As can be seen, there has been a remarkable advance on several fronts.

Recommendations Made in Volume I		**Achievements over the Last Year/ Additional Work to be Completed**
Cluster 1	Re-evaluate the Desert Development Strategy and Increase Attention on Guiding Growth in Existing Cities	No fundamental rethinking of the desert development strategy, but the beginnings of a more realistic look at the role of the new towns. Reputable consulting firm hired to review the case of 6th of October and suggest a business plan.

		New Towns within Greater Cairo Region now constitute two new Governorates: 6th of October Governorate (to the west) and Helwan Governorate (to the east). Considerable movement towards directing attention on guiding growth in existing cities, especially through new legislation (the Unified Planning Law, ratified by the Parliament in 2008- Law No. 119/2008), and strategic planning initiatives of GOPP.
Cluster 2	Create Appropriate Planning and Building Standards for Urban Land Subdivision and Affordable Housing	The new Unified Planning Law allows for variations in planning and building standards, but much work needs to be done on the Executive Regulations which elaborate on, and operationalize, this law.
Cluster 3	Expand Control over Asset Management to Local Authorities and Enhance Their Ability to Pursue Sustainable Financing Mechanisms	Very little concrete movement on local authority asset management and in pursuing sustainable financing mechanisms. However, the kernels of a more 'corporatist' approach to land management are apparent in the New Urban Communities Authority.
Cluster 4	Create a Policy Making Council and Improve the Urban Information Base for Decision-Making	Law No 119/2008 calls for the establishment of a National Higher Council for Urban Planning and Development under the Prime Minister. Such a council, when formed, will be in need of a technical secretariat or other technical arm for it to be effective. Initiatives undertaken by GOPP are advancing the information base for urban decision making, but much more analytical work needs to be carried out, fully discussed, and disseminated.
Cluster 5	Pursue Institutional Reform and Capacity Building for Urban Management	As yet little concrete steps have been taken to reform local authorities or to improve their capacities for urban management and for self-financing of urban development. Yet the new planning law (119/2008) gives GOPP the mandate to extend technical assistance to local urban authorities.
Cluster 6	Improve Public Land Management Mechanisms	No movement has been taken to improve public land management mechanisms at the national or ministerial levels. However, the technical assistance in inventorying public lands is being extended by the US Department

		of Interior to the National Center for Planning State Land Uses in 2008.
Cluster 7	Reduce Land and Property Speculation and Improve Mechanisms to Capture the Appreciation in Value (un earned increment) Due to Public Investments	A draft Property Tax completed and is scheduled for discussion in 2008/2009. Once applied, it may reduce to some extent the speculative intent for built urban properties, but not for vacant land, which is a serious loophole. Little movement is discernable to begin to set up mechanisms to directly capture the appreciation in urban property values due to public investments, although the new Unified Planning Law allows for the imposition of betterment tax. Some decentralized reform of central budgetary allocations to local authorities has been initiated.
Cluster 8	Review the Means and Tools to Guide Urban Development on Private Lands	GOPP's initiatives- 'setting urban boundaries' exercise (*al heiz el amrani)*, and 'guiding informal expansion' (*tahzim),* are very important steps in addressing the issue of guiding urban development on private lands. The Unified Planning law establishes the enabling framework for relaxed standards and land pooling or land readjustment. The devil, however, is in the details, specifically in the Executive Regulations which still need to be written.

9. Looking at these significant changes over the last year, one striking aspect is the degree to which there has been a major mind-shift towards consultative approaches in urban management. This is most apparent in the following activities:

- The work to expand village boundaries to allow for a certain amount of expansion onto agricultural land (*heiz al amrani*) has been completed by GOPP for over 3,500 villages out of a national total of 4,671, and this work has been carried out in consultation with local authorities and stakeholders.

- Work is continuing on the definition of areas on the fringes of cities for which limited urban expansion (*tahzim*) is to be allowed. Boundaries have been drawn for some 50 medium and small sized cities, as well as for Greater Cairo and Alexandria, working closely with district administrations.

- GOPP has developed a methodological approach for strategic town planning (with 10 to 20 year time horizons), and so far 43 medium and small sized towns have had strategic plans prepared by local consulting firms under contract with GOPP and another 10 towns have had their strategic plans prepared with assistance through UN Habitat. Work is continuing on another 40 cities. These strategic town planning exercises used the consultative approach as the starting point.

10. The main findings and recommendations of Volume II can be summarized as follows:

Appropriate Planning and Building Standards for Urban Egypt

11. The *tahzim*[2] initiative to guide and control urban expansion on private agricultural lands represents a significant initiative. The concept allows a certain amount of urban expansion on agricultural land and/or State-owned land surrounding informal settlements. This represents a fundamental departure from the long standing policy of prohibiting any building on agricultural land, and it is very welcome. The aim is to permit planned urban fringe growth both to meet the needs of the growing fringe urban population and also to limit and control the widespread phenomenon of informal and unplanned (*aashwa'i*) development (as described in Section 5).

12. However, there are a number of difficult challenges which remain, but also as opportunities, to make the *tahzim* initiative more cost-effective and replicable. These imply much more detailed studies and investigations, as follows:

Investigating the Real Economics of Land Conversion

13. Much more needs to be known about the economics of agricultural land conversion for urban purposes. What are prevailing prices and trends of land which is exchanged informally, who are the actors, and what are the micro-determinants of price variations? To what extent might land "taking" for public use be acceptable economically as well as socially?

Land Assembly and Exploring the Concept of Land Readjustment

14. The high degree of fragmentation of agricultural lands means that some land adjustment and assembly will be necessary. In the guidelines proposed here this factor has been taken into account by the creation of small "negotiation blocks". However, in Article 24 of the new Unified Building Law, the concept of land readjustment is introduced. This implies that it would be possible to declare a land readjustment area, that each land owner in the area would surrender his holding and, following the deduction of land for public purposes, would be re-assigned a share of the resulting building land in proportion to his original holding. Any land owner who does not agree to the process would have his land expropriated as allowed by Law 10 of 1990, and compensated

[2] *Tahzim* is defined as 'guiding expansion of the informal areas'. It calls for layouts which allow planned, orderly urbanization of vacant lands surrounding existing informal, *aashwai't*, areas.

according to that law. Were such land readjustment legislation promulgated and codified, a whole new approach to implementing *tahzim* zones could be foreseen. However, this would mean that Egypt would be entering completely virgin territory, and international experience concerning land readjustment has not, with few exceptions such as in some East Asian countries, been very promising. Obviously, a careful study of the feasibility of this approach (including the legal and constitutional ramifications) would need to be carried out.

Applying Betterment Taxes (*muqabil tahsiin*) in Tahzim Zones

15. The GOPP documentation on *tahzim* zones calls for the relevant Governor to impose a betterment tax on land owners to cover the costs of introducing infrastructure to the new areas, to be collected at the point of issuing building permits. This is also mentioned in the new Unified Building Law, Article 16, with reference to the *muqabil tahsiin* Law 222 of 1955. Recouping the costs of infrastructure is laudable, but there are many issues which need to be clarified. If the meter squared betterment fee is so high as to make the land price un-economic, it will simply drive landowners into non-compliance and continued informality (especially since presently informal land conversion carries no infrastructure cost burden). Also, there are many details which would need to be worked out concerning how the fees would be accounted for and managed to ensure that infrastructure is rapidly and efficiently provided to *tahzim* areas, and how these works would be integrated with infrastructure improvements in adjacent aashwa'i areas.

The Land Registration Problem

16. Perhaps the most difficult issue concerns the legal stipulation that the subdivided agricultural land must be registered at the Shahr el Aqari and surveyed by the El Misaha el Misriya before subdivision and subsequent building permits can be issued. This will in most cases be simply impossible. It is imperative that the feasibility of a compromise system be investigated, such as an intermediate "no objection" certificate for agricultural lands where orfi and other ownership documents serve as sufficient proof of ownership. The important goal is to end up with organized areas where the resulting individual building plots have sufficient legal status to be "ready for building".

Recommendations

17. Given the situation of agricultural land (analyzed in Section 2.4) and the main needs of the target population (described in Section 2.5), it is possible to advance a number of general strategic recommendations concerning the new *tahzim* areas, as follows:

- Introduce new, relaxed planning and building standards for a portion of the new *tahzim* areas which will allow nearly the same coefficients of exploitation currently operating in aashwa'i areas, thus giving incentives for land owners to voluntarily join the *tahzim* program (and also to keep the costs of the resulting housing units low and affordable).

- For the same reasons, keep the "taking" of land for public purpose (up to 30% allowed in the subdivision regulations) to a minimum in the *tahzim* areas, which are already under informal urbanization pressures.

- Aim to formalize the informal building dynamic in some *tahzim* areas – in terms of street patterns and plot sizes.

- Aim to create planning layouts which reflect existing agricultural land holdings and thus create "negotiation blocks" whereby a small and manageable number of land owners can come together to agree on minor property line adjustments.

- Three types of indicative planning zones are proposed. The planning standards for these zones encourage small plots and will make it very difficult for building designs to conform to all stipulations of the building code, particularly those concerning light wells, off street parking, etc. A simple architectural exercise could develop very practical, and easy-to-understand standards for these small footprint and medium-rise buildings which guarantee sufficient space, light, and ventilation standards. This exercise would greatly help in the drafting of realistic Executive Regulations for the new Unified Planning Law.

Addressing the Needs of Peri-urban Areas

18. There is currently a complete policy vacuum as concerns peri-urban areas[3] in Egypt, the largest of which is by far the peri-urban areas around Greater Cairo. The very phenomenon of huge population growth in these areas is hardly recognized. And the fact that this phenomenon represents a new spatial development paradigm which could be called "rurbanization" is until now totally unknown. Peri-urban areas represent a huge share of population in all rural Governorates and Cairo Metropolitan (24.7% of Greater Cairo's 17.0 million inhabitants or 4.21 million inhabitants). This share is increasing significantly; in absolute growth terms and there is a remarkable and continuing influx of population into these areas.

<u>Recommendations</u>

19. A first step in formulating policies is very simple and obvious: the GOE must recognize and track the rapid population growth and the increasing concentration of poor and modest income families in peri-urban areas[4]. The fact that there are currently 4.21 million inhabitants in peri-urban Greater Cairo alone, and that at least another 1.4 million inhabitants can be expected there in the next ten years) must be recognized and incorporated at three levels:

[3] Peri-urban areas are those vast areas that surround cities which are neither strictly rural nor urban, and where the rural-urban transformation is taking place expeditiously.
[4] Hopefully, wide dissemination of this Note will contribute to this recognition.

- At the governorate and local authority level, especially in terms of improved urban service delivery. This institutional aspect cannot be overemphasized, as the existing village, town and markaz level administrations are weak and not oriented towards supporting urban development

- At the Greater Cairo planning level, especially in incorporating peri-urban areas into metropolitan transport and environmental strategies

- At the national level, especially in terms of greater allocations of investment budgets to support improved service delivery and infrastructure needs in peri-urban areas

20. What might be some of the interventions that could markedly raise living standards of the existing populations in these areas, are cost effective, and meet the needs of future population growth? These would relate to such interventions as:

- Extension of water and wastewater networks and strengthening existing systems, including affordable house connections,
- Build needed schools and improve vocational training
- Street and lane paving both in towns and villages
- Major arterial road and intersection and traffic management improvements (and incorporation of peri-urban areas in Greater Cairo transport corridor plans)
- Better organization of private bus operations and improvement of modal-split nodes and stations, and licensing of small shared taxis (tuk-tuks)
- Irrigation canal protection and covering
- Improved solid waste management (including public awareness campaigns) and extension of services to all settlements
- Creation of SME workshop clusters

21. Three points should be stressed in considering these interventions aimed at peri-urban areas of Egypt:

- First, service delivery and infrastructure interventions will be extremely cost-effective, with the costs per beneficiary being extremely low, mainly due to the very high population densities and efficient settlement patterns.

- Secondly, practically all needed interventions already exist in Egypt, mainly as sectoral and rural development programs. It is simply a matter of applying and/or concentrating these programs in peri-urban areas.

- Thirdly, in many sectors institutional and financial reform have gathered pace over the last five years in Egypt. The aim is to take advantage of these reforms and to apply them specifically to Greater Cairo's peri-urban areas. Of particular interest are means for better financial cost recovery, and the most promising areas are in the water and wastewater sectors as well as better local revenue generation, including the application of the betterment tax on land and properties (as allowed

in the new, draft unified building and planning law) and revenues to be generated under the draft property tax law.

Changing New Town Policies towards Economic Success

22. The new towns policy was launched in 1970s as an official recognition by the GOE that "the old inhabited areas along the Nile valleys are no longer able to absorb the increasing population and that Egyptians have to conquer their desert land in order to ensure the sustainable growth of the nation."[5] The aim of the new towns was explicitly to attract population, create an industrial base outside the Valley, and attract public and private investments.

23. An analysis of the new towns (Section 4) shows that there are fundamental problems which have never been recognized and which bring into doubt that idea that the new towns will ever generate the huge population shifts for which they were intended. This revolves around three main axes:

1. In the GOE's attempt to create a modern society in the new towns, high urban planning standards have been imposed which precluded the kinds of housing typically generated in existing cities and have proscribed the kinds of informal businesses which generate most employment in urban Egypt and which poorer urban Egyptians rely on to cope.

2. Distances to new towns from existing agglomerations are enormous and most new towns are not connected from existing urban fabrics through functioning mass transit systems.

3. Land distribution policies within the new towns have been wholesale and mechanistic, as if location doesn't count. And there are huge distances within new towns, and there appears to be no sense of logical horizontal expansion from mature cores. In addition there is little attempt at capturing the un-earned increment due to land value increases. There also has been poor build-out of lands allocated to the private sector, particularly plots in subdivisions allocated to individuals.

24. In effect, the new towns have been created by and burdened with spatial supply-driven policies and wholesale land distribution attitudes which, in spite of the best of intentions, simply do not begin to fit with or stimulate the urban processes and markets that have dominated the dynamics of urbanization in Egypt and which to continue to replicate themselves in existing agglomerations.

25. Although some of the new towns, especially those around Greater Cairo, are attracting large amounts of private capital, but, as revealed in the discussion of Sixth of October below, such capital has mostly gone into speculative housing and commercial

[5] Madbouli (2005), UN Common Country Assessment in Egypt, p. 59

investments which are mostly vacant, idle, or stalled. This in turn reflects the immaturity of capital investment markets in Egypt and the instinct of both corporations and individuals to invest in land and real estate, where eventual returns through resale will (hopefully) eclipse those in industry, equity markets, or savings bonds.

Recommendations

26. In general terms, there is a wholesale need for reform of the development philosophy for new towns, particularly in terms of land management. This means that systemic reform is needed in the following areas:

- Rethink what is the economic rationale for each new town, especially in the light of the increasing liberalization of Egypt's economy

- Take a hard look at the location advantages and disadvantages of each new town, including proximity to forward and backward linkages and supply chains

- Formulate strategies for new towns to take advantage of Egypt's real estate boom which is largely generated by the huge accumulation of capital in Middle Eastern countries and the resulting liquidity.

- Formulate strategies for better linkages and integration with existing nearby urban agglomerations. New towns cannot be treated as isolated geographic entities.

- Combat the speculative intent in land disposal; in particular, reclaim and recycle previous land allocations, densifying the city cores and re-establishing logical land development sequences

- Address public transport problems, with solutions tailored to each town and its geographical context

- Avoid or at least rationalize subsidies (which implies first identifying them, especially those that are indirect or hidden)

- Avoid wishful thinking and non-transparent planning

27. Implied in these recommendations is the need for an economic feasibility review of all existing new towns, and a hard look at whether or not any further new towns should be established. In fact, until Egypt's new towns policy is redirected towards economic realities and justified in terms of locational rationales, a moratorium should be put on the creation of any more new towns.

Informal Urban Development in Egypt

28. In Egypt informal settlements (called *ashwaia't* or "random" zones in Arabic) are ubiquitous in both urban and rural areas. They are illegal or extra-legal, in that they contravene one or more laws regulating planning, subdivision, construction, registration

of property, and preservation of agriculture resources. According to the Ministry of Local Development (2001), as many as 1,105 squatter and informal settlements existed in Egypt, housing a total of 15.7 million inhabitants. This estimated size of the phenomenon, although it represents over 25% of the urban population, is probably a gross underestimation. For example, recent analysis of the 2006 Census results allow an estimate that over 60% of Greater Cairo's population, some 10 million inhabitants, now live in informal areas created since 1950.

29. The nature and characteristics of urban informality can be best understood by reference to the history of the phenomenon, which also helps explain the different sub-types and sub-areas. The phenomenon of informal housing in Egyptian cities began to appear in the 1960's, and there are two main types:

1. informal settlements on subdivided former agricultural land where the builder has purchased land informally from other owners; or

2. informal squatter settlements on formerly state (desert) land, where the builder has only a "hand claim" (*wadaa' yed*).

30. In Greater Cairo the vast majority (81%) of informal settlements is on agricultural land, with informal development on desert (State) lands limited to about 10% of the total, and the remainder of informal settlements is on agricultural land nominally controlled by the State. These figures for Greater Cairo reflect more or less the situation in other towns.

31. The main characteristics of informal areas are a product of their extra-legality, i.e. the complete lack of physical planning or control. There are few if any organized street patterns, no public space reserves and little or no land for public services such as schools. Most streets are commonly very narrow (2-4 meters wide), except where canal and road right-of-ways allow for arterial streets. Land parcels are generally small, averaging 80-120 m2. Buildings have no set-backs, and the whole parcel of land is built upon (except for narrow light wells). However, most informal buildings are of good structural quality (reinforced concrete frame and brick infill).

32. The explanations for such a vast phenomenon of informal areas in urban Egypt are largely economic and social. In particular, informal areas respond to economic fundamentals. The formal housing sectors (both public and private) have been unable to provide affordable housing solutions for the majority of urban dwellers in the locations they desire. On the other hand, informal areas generate huge quantities of small apartments which are either occupied by the owner-builder or are sold and rented through vibrant informal market mechanisms. And the urban quarters which are created (some of which exceed one half a million inhabitants) generate a whole range of enterprise and employment opportunities. And these areas are very well located within the urban space with relatively good access to city centers. Thus it is no wonder the informality phenomenon has proven so popular, regardless of its extra-legality.

<u>Recommendations</u>

33. It is no exaggeration to say that informal settlements currently house the large majority of Egypt's lower-income urban families and still provide them with the main option for new housing. And it could be said that informal settlements are one of the defining characteristics of Egypt's urban landscape. Unfortunately, until now urban policies have largely ignored the phenomenon as an intrinsic dynamic of urban life. Urban upgrading is on the policy agenda, and there has been a welcome increase of interest in some informal areas and better tools are being developed for participatory upgrading under a GTZ program. Yet the upgrading approach treats these areas as specialized phenomena, either focusing on particular pockets which exhibit "slum" characteristics, or in simply redressing the shortfall in urban services in larger informal agglomerations. Donor-supported upgrading projects remain isolated pilots and "islands of excellence".

34. Is this all that can be done? Can any national policies which aim at improving urban livelihoods, at generating local economic growth, and at raising urban efficiencies hope to succeed while ignoring half of the urban landscape? Can urban poverty be addressed without including informal areas where most poor and moderate income families live now and where many more will locate in the future? And is it not possible to build upon the economic fundamentals exhibited by informality? The following are some suggested paths:

- *Changing perceptions.* The current misunderstandings about informal and squatter areas and the widely held negative perceptions need to be tackled through general information campaigns and also by targeting decision makers and professionals.

- *Political and fiscal empowerment to local authorities and technical capacity building.* Transfer land management and planning standards responsibilities to municipalities and districts in which there are informal or squatter settlements. Enable governorates and municipalities to apply sustainable financing mechanisms such as the reuse land sale revenues for upgrading purposes. Increase technical capacity within local authorities to prepare remodeling plans (new *khotoot tanzim*) for informal settlements and facilitate the processes of land regularization and house improvements/reconstruction permits.

- *Combine infrastructure upgrading in fringe informal areas with servicing adjacent new tahzim areas.* As the Government moves towards creating tahzim areas, neighboring fringe informal areas need to be included in infrastructure system design and implementation. This makes economic sense, and it is usually the case that newer, fringe informal areas are the worst off in terms of levels of infrastructure services, especially wastewater and roads.

- *Improving public transport and traffic in informal areas.* Accessibility and traffic into and within informal areas is frequently deplorable. At a minimum, main arteries need to be organized to maximize the efficiency of very limited space and to make the privately-run minibus system less chaotic.

- *Improve affordable housing markets in informal areas.* As pointed out in other World Bank reports on housing in Egypt, most affordable housing is generated in informal areas, and there is a need to make the housing rental system more transparent and efficient. There is also an opportunity to apply small targeted subsidies both on the demand and supply sides of these housing markets to improve housing offers for the poorest families.

- *Develop human resources in informal areas and support small and micro enterprise development.* It should be clear that great opportunities exist to target informal urban areas with programs which raise the skills and job-marketability of youth and which extend business support credit to existing and newly forming small and micro enterprises. These programs already exist in Egypt, and they would be more cost-effective if they were concentrated in the large, dense informal areas of cities which are so common in Egypt.

- *Benefit from past integrated participatory urban upgrading experiences in Egypt.* Examples include DFID in Hai Al Salam- Ismailia, USAID in Helwan- Cairo, and GTZ in Nasriya- Aswan. Such programs included: land titling, infrastructure & municipal services, socio-economic development (e.g. health & education, micro-credit for income generation and employment) and sites and services

SECTION 2: TOWARDS APPROPRIATE PLANNING AND BUILDING STANDARDS FOR URBAN EGYPT

2.1 Background

35. In September 2007, the General Organization for Physical Planning (GOPP) started an important planning initiative for Alexandria and Greater Cairo, as well as for a number of smaller cities.[6] The concept of allowing a certain amount of urban expansion on agricultural land has been introduced. This represents a fundamental departure from the long standing policy of prohibiting any building on agricultural land, and it is very welcome. The aim is to permit planned urban fringe growth both to meet the needs of the growing fringe urban population and also to limit and control the widespread phenomenon of informal and unplanned (aashwa'i) development (as described in Section 5 below).

36. In both Alexandria and Greater Cairo GOPP has prepared master plans which identify agricultural and vacant desert lands suitable for urban fringe growth. In all cases these lands are near to existing informal or aashwai'i areas, and plans call for layouts which will allow planned, orderly urbanization but which will also involve the "controlled expansion" (tahzim) of the informal areas to prevent the further creep of illegal construction.

37. In Alexandria Governorate a total of 2870 feddans have been identified for such tahzim expansion, and most of this is composed of agricultural lands on the eastern fringes of the city where 10 informal areas have been targeted and 11 new tahzim zones have been planned.[7]

38. Greater Cairo is composed of three governorates, and in all three tahzim initiatives have been proposed:

- In Cairo Governorate a total of 31 aashwa'i (informal) areas have identified for which 14 fringe tahzim zones have been planned, totaling 2266 feddans (mostly on desert/State land, but also on agricultural lands and pockets).

- In Giza Governorate a total of 9 aashwa'i areas have been identified for which 4 main tahzim zones have been planned, totaling 3100 feddans, all of which are composed of agricultural land.

[6] These are found in two powerpoint presentations, one for master plans of tahzim zones in Alexandria (October 2007), and another for master plans for tahzim zones in Greater Cairo (November 2007). Similar tahzim plans are understood to be incorporated in the ongoing strategic urban development studies being managed by GOPP in 90+ smaller cities and towns.

[7] Of the total for Alexandria, 728 feddans have been identified for expansion on desert/State lands to the west of Alexandria, while the rest is for expansion on agricultural land.

- In Shubra El Kheima (Qaliubia Governorate) a total of 10 aashwa'i areas or groupings have been identified and 8 tahzim zones have been designated, totaling 820 feddans, all of which are composed of agricultural land. However, only one tahzim zone has been planned – Abd el Minaam el Qadima with 258 feddans.

39. Most tahzim zones in Greater Cairo and Alexandria are oriented towards agricultural land, practically all of which is privately owned in small land holdings. And it should be pointed out that GOPP in collaboration with UN-Habitat is preparing strategic urban development plans for over 90 smaller towns and cities, practically all of which envision limited expansion on surrounding private agricultural land. Thus developing an effective approach to planning these agricultural areas and setting out procedures for conversion of these lands for urban use are crucially required.

40. GOPP's initiatives to create tahzim zones represent a radical departure from prevailing urban planning policies. Since at least the late 1970s no urban plans or projects have been initiated on private agricultural land in Egypt. Thus in a sense Egypt is entering a new era in terms of urban development, one which will require the re-invention of appropriate tools of planning and intervention, as well as a process of trial and error, refinement and feedback.

2.2 Objectives of GOPP's Tahzim Initiative

41. GOPP documentation states that the tahzim exercise has two main objectives:

- The limiting of existing unplanned aashwa'i growth and the blocking of avenues of future aashwa'i expansion

- The limiting of the creation of new aashwa'i areas by giving alternative urban opportunities for planned expansion to meet the needs of inhabitants in existing aashwa'i areas for housing and services on lands which can absorb future growth.

42. These objectives are very noteworthy. In particular, the second objective directly addresses a crucial issue in Egyptian towns – the need to create housing, employment and economic opportunities, and services for the large and rapidly growing populations found in informal urban areas. Until now these inhabitants have had no affordable shelter alternatives other than what extra-legal informal areas themselves can provide.[8]

43. The guidelines and standards for developing tahzim areas proposed in this section take this second objective as the main point of departure. They show how it is possible to capture the positive dynamics of informal areas and direct them towards planned and legal subdivisions, and in particular to replicate the housing processes which have in the

[8] Attempts over the last two decades to attract those of limited income to live in the new towns have been largely unsuccessful. Heavily-subsidized government housing has attracted some of the target population, but nowhere near the scale required, and at great cost.

past produced housing units which are suitable and affordable for the majority of urban Egyptians.

2.3 The Challenge is in the Details

44. GOPP is beginning to develop detailed plans and land conversion procedures for these tahzim zones. Whereas it is relatively straightforward to develop tahzim lands on desert lands, where the government is the landowner, the same is not true for tahzim areas to be located on private agricultural lands.

45. The crucial issue is how to make the owners of agricultural parcels want to voluntarily participate in the tahzim process. In other words, the issue is one of land economics and land markets. Presently owners of parcels on the near-fringe of aashwa'i areas perceive their highest return through the extra-legal subdivision and sale of plots to individual families and small entrepreneurs as "building land". The agricultural tracts can be subdivided and sold at near 100% exploitation (leaving only a small, two meter lane for plot access), with no overhead or infrastructure costs other than the underhand payments required for local officials to look the other way. Thus why would a land owner prefer to join a legal program which calls for the taking of up to 50% of his or her land for public use (for roads, services, and open spaces), and which requires significant infrastructure payments through a betterment tax, and which forces the land owner to deal with labyrinthine and opaque bureaucratic processes with all the hassles and additional costs this entails?

Figure 1 Strip development & agro pockets, Shubra el Kheima

46. Some may answer by saying that these land owners will have no alternative since any illegal land subdivision and any building without permits will be prohibited. Certainly police power can have a contributing role in prohibiting aashwa'i land conversion processes and in shifting landowners towards legality, but the fact remains that attempts to date by government to stop the phenomenon around Egyptian cities and towns have been, for all practical purposes, utterly unsuccessful. However, the

prohibition regime has had one important benefit: It has prevented the wholesale conversion of agricultural tracts for urban use and the accompanying urban sprawl. Those seeking to build in the informal, extra-legal environment have been forced to locate on small parcels abutting existing built-up areas where contraventions are out of the eye of authorities. The result has been the slow creep of what is a quite dense and efficient pattern of development. This aspect is treated in detail in Sections 3 and 5.

47. In effect, only a "carrot" as well as "stick" approach will work, at least until the first tahzim projects are shown to be workable, beneficial to land owners, and allow the individual families and small entrepreneurs so prevalent in aashwa'i areas to participate in the tahzim schemes. Making the tahzim process attractive to landowners is thus one of the cornerstones of any realistic policy.

2.4 What are the Realities on Fringe Agricultural Land?

48. Virtually all agricultural land on the fringes of Egyptian cities is composed of irrigated, intensely cultivated land holdings. Most of these holdings are very small. Also, most of these holdings are private, that is under family freehold tenure. Some lands are *awqaf* lands (under the Ministry of Religious Endowments), but farmed by small holder tenants. Also, some are land reform lands *(islah al ziraa*, under the Ministry of Agriculture), again farmed by small holder tenants. In both of these cases the rights of tenants are strong, approaching those of freehold tenure.

Figure 2 Inner fringe, Giza

49. Within any agricultural area there will be a number of main and secondary irrigation channels (*turaa*) and drains (*mussaref*) whose rights-of-way represent the only lands in the public domain. These are normally between 10 and 30 meters wide

(including associated embankment roads). In mature urbanized informal areas it is these rights-of-way which have been converted to main streets.

50. Any attempts at legal conversion of these agricultural lands for urban use confront three main problems:

Lack of legal, up-to-date registration

51. Although agricultural land in Egypt had been surveyed and registered in the later 19th and early 20th centuries, the registration system has fallen hopelessly out of date. Currently perhaps only 10 to 20% of current land holdings are registered in the names of current owners, and even these do not reflect true possession and use, mainly due to successive fragmentations for inheritance purposes. In almost all cases, buying and selling and fragmentation of lands over years and decades has been carried out through simple civil (*urfi*) contracts which are not recognized by the land registration authorities. Thus, although some sort of paper documentation might exist of land transactions and subdivision, establishing the legal chain of ownership back to the last registered owner is in most cases virtually impossible. This is ironic, since at the local level who owns what lands is very well known and land disputes are relatively rare.

Extremely fragmented land holdings in long, narrow strips

52. Although there are some contiguous agricultural land holding which are large – i.e. over three to ten feddans – these are very rare. The norm is extremely small strips of land running parallel to the smallest irrigation channels (*mes'a*). To illustrate the problem, a rapid investigation was carried out in one fringe area (Al Mutamidiya-Zenin, Giza Governorate), and a representative selection of apparent land holding configurations have been measured as shown in Table 2.1.[9]

Table 2. 1: Configuration of Selected Fringe Agricultural Land Holdings in Mutamidiya-Zenin

Length (meters)	Width (meters)	Area (meters squared)
269	14	3766
177	17	3009
97	13	1261
177	13	2301
246	8	1968
235	22	5170
200	13	2600
122	5.5	671
302	7.5	2205
132	24	3168
213	21	4473
340	16	5440

[9] "Apparent" agricultural land holdings are those which, based on satellite imagery provided by Google Earth, appear to be under the same crop, on the assumption that these roughly reflect ownership and inheritance patterns.

237	16	3792
234	12	2808
131	16	2096
210	12	2520
134	49	6566
171	83	14193
186	14	2604

53. As can be seen, the norm is long and narrow parcels (100 to 300 m. strips with widths between 6 to 17 m.). However, these configurations may represent more than one single owner/individual, due to the common family practice of one member (say a brother) farming a holding which may have several related owners (mashaa), all of which must agree to any change in the land's status.

Figure 3 Far Fringe development, Giza

Fringe informal subdivision of agricultural land into building lots

54. In fringe areas some agricultural strips may have already been subdivided into building lots and informal housing may have already been built on some, or all, of the strip, thereby complicating any attempts to impose a planning layout. A rapid investigation was carried out in one fringe area (Al Mutamidiya-Zenin, Giza Governorate), and a representative selection of subdivided building lots have been measured. These are shown in Table 2.2.

Table 2. 2: Typical Informal Building Lot Dimensions on Agricultural Fringe Strips in Mutamidiya-Zenin

Frontage (meters)	Depth (meters)	Area (meters squared)
10	13	130
7.5	13	97.5
11	14	154
6.5	10	65
6	9.5	57
10	12.5	125

8.5	12	102
8.5	8.5	72.25
17	7	119
6	8	48
10	12	120
10	5	50
11	8	88
8	12	96
8.5	6	51
7.5	9	67.5
8	14	112
7.5	14	105
10	12	120

55. From this table it is clear that building lots are small (commonly 6 to 12 meters frontage and 8 to 14 meters depth, with resulting lot areas of 80 to 150 m^2). It should also be clear that these building lots fit well with the agricultural strips described above (where the strip's width becomes the lot's depth, minus a small access lane).

Economics of agricultural land markets under urbanization pressures.

56. It is well known that agricultural land on the fringes of cities will have a market value (as building land) which is between 6 and 12 times the exchange value as agricultural land. The expectation of landowners, at least on the near fringe, is to capture a tremendous windfall profit upon sale of this land. This makes it problematic to impose any standards which will involve a "taking" of land above the aashwa'i norm, which is only between 10 and 15% (for a narrow access lane). However, there is some evidence that agricultural land holdings far from the existing building fringe cannot command similar land values since such clear and virgin land cannot be easily subdivided and built upon, due to the obvious visibility of such building activities and the inevitable intervention of local authorities to prohibit such building. Thus there may be a better opportunity in these more open, virgin areas to impose land "taking" for public purposes and still convince land owners to join tahzim schemes, since the owner's perceived monetary gain of his remaining land under the legal tahzim system will be higher than he/she could hope for under the informal system.

2.5 What are the Needs of Aashwa'i Inhabitants?

57. Since a major objective of the tahzim exercise is to provide expansion space for nearby aashwa'i settlements, it is important to identify the most important needs of these inhabitants, most of whom live in huge informal settlements (with populations which, in Greater Cairo and Alexandria at least, frequently range from 100,000 to 600,000 inhabitants).

Housing

58. First and foremost is the need to generate the conditions which will stimulate the production by the private sector of suitable and affordable housing in the tahzim areas. The recent work carried out by USAID and the World Bank in collaboration with the Ministries of Housing and Investment on Egyptian housing needs and housing policies[10] clearly shows that:

- The majority of urban Egyptian families, especially those seeking housing, have limited incomes and can only devote a very limited amount of their incomes for housing

- The most affordable housing units are small apartments (40 to 70 m^2) found in informal (aashwa'i) areas, both for sale and, increasingly, for rent

- Demand for such housing is very strong in and near aashwa'i areas, mainly due to the excellent locations and accessibility of these areas and the many employment and business opportunities which are found there and nearby.

59. In effect, mechanisms which can harness the same housing dynamics which operate in the informal housing sector and which can formalize/legalize these dynamics in the new tahzim areas will be the best guarantee that the huge populations of aashwa'i areas will see dramatic housing benefits from the tahzim exercise. This implies, as far as possible, stimulating the modes of housing production (individual family and small entrepreneur progressively building small apartment blocks on small plots of land) so prevalent in aashwa'i areas. It also implies that housing norms and standards prevalent in aashwa'i areas be allowed in tahzim zones, modified to improve space and health standards.

[10] See for example the Housing Demand Study for Greater Cairo (USAID, TAPR2, March 2007) and Framework for Moving from a Program-Based to a Policy Based Approach to Housing Subsidy and Sector Reform in Egypt (World Bank, USAID, September 2007).

Figure 4 Densification, Bashtil

Public Services

60. Existing aashwa'i areas suffer from insufficient public services, especially schools and health and recreation facilities. Thus, the new tahzim areas need to provide "compensatory" services to meet the shortfall in adjacent aashwa'i areas as well as to provide the required services for the new tahzim areas.

Infrastructure

61. Fringe aashwa'i areas usually suffer from insufficient infrastructure services, especially in terms of wastewater systems and paved roads. The grafting of new, planned tahzim areas onto these settlements offers a great opportunity to extend and upgrade these networks. However, for this to occur, a comprehensive approach is needed, whereby systems and their capacities are designed to serve both the adjacent aashwa'i areas as well as the new tahzim zones.

Local economic development

62. Many studies have shown that existing aashwa'i areas generate very vibrant local economies, mainly in petty retail, trade, service, and productive activities which offer considerable employment as well as micro and small business opportunities. Such dynamism should be encouraged in the new tahzim areas, subject to restrictions concerning negative environmental and nuisance activities. Thus in most new tahzim areas mixed residential and commercial land uses should be allowed (i.e. ground floor establishments in apartment blocks).

2.6 Strategic Approach

63. Given the situation of agricultural land described in Section 2.4 above and the main needs of the target population described in Section 2.5 above, it is possible to advance a number of general strategic concepts concerning the new tahzim areas:

- Introduce new, relaxed planning and building standards for a portion of the new tahzim areas which will allow nearly the same coefficients of exploitation currently operating in aashwa'i areas, thus giving incentives for land owners to voluntarily join the tahzim program (and also to keep the costs of the resulting housing units low and affordable).

- For the same reasons, keep the "taking" of land for public purpose (up to 30% allowed in the subdivision regulations) to a minimum for tahzim areas which are already under informal urbanization pressures.

- Aim to formalize the informal building dynamic in some tahzim areas – in terms of street patterns and plot sizes

- Aim to create planning layouts which reflect existing agricultural land holdings and thus will create "negotiation blocks" whereby a small and manageable number of land owners can come together to agree on minor property line adjustments.

2.7 Introduction of Realistic but Variable Planning Standards:

64. To illustrate how simple and realistic planning standards could be applied to tahzim areas, three variations – zones A, B, and C – have been proposed. The detailed parameters of each planning zone have been developed to show how these standards could be constructed. These are found in Annex 1. A short description of each type of zone is given for a better understanding of the underlying concepts:

Zone A

65. These zones most represent the current popular norms in aashwa'i areas in terms of plot sizes and plot coverage and land exploitation. The main improvement is to restrict the lane width to a minimum of 6 meters (compared to the norm of 2 to 4 meters presently), which is extremely important for light and air and to give more space for street activities and parking. Another improvement over existing aashwa'i areas is to restrict building heights to G+4 (compared to the norm of G+6 and even higher). A small amount of open space is also introduced for "pocket parks" for green and play areas.

Zone B

66. These zones introduce a number of improvements over those of A Zones. The most prominent feature is the introduction of a back setback of 2 meters, which would mean that a long, 4 meter space is created running between back-to-back buildings. This will allow air and light for the back rooms of apartment units, thus improving what is one

of the vexing apartment layout problems currently faced in aashwaʾi areas. Another improvement over A Zones is wider (8 m. streets) and slightly larger average plot sizes.

Zone C

67. These zones represent the current standards which apply for private subdivisions in Egypt. They would be aimed at attracting private investors who would produce a limited amount of housing units for the upper end of urban housing markets.

2.8 General Guidelines for Detailed Planning and Layouts in Tahzim Areas on Agricultural Land

68. The following are general guidelines for carrying out detailed planning of designated tahzim areas on agricultural land which are located next to existing informal areas.

- The area should contain all three types of zones, roughly 1/3 of the area for each zone. Of course, the ratios could be varied depending on the context of the area, for example with higher portions of C Zones in areas of high interest for private, corporate investors.

- A small buffer strip may be required to separate existing aashwaʾi areas from tahzim zone, say 20 to 40 meters depth (to avoid *mutakhalallat* land hassles)

- No buffers are required between the three types of proposed tahzim zones. (Streets are sufficient to demarcate zones.) In fact, there can be a mix of zones within a tahzim residential block – see the example given in Annex One.

- Zones A should be located closest to existing aashwa'i area. Zones B would be next to zones A. And zones C would be the furthest away and would delimit the tahzim area from land which would remain in agricultural use.

- Detailed planning sets out the land use, main streets, and main blocks only. Detailed layout of lanes and plot lines are left for negotiations and agreement among land owners within each block. (Land owners are informed of zonal standards as in Table 2.3 above.)

- A rectangular grid of blocks and streets are laid out in all cases. (In other words, no angles other than 90 degrees)

- The orientation of the rectangular grid must follow the agricultural parcel layout (which is almost always parallel strips).

- The layout should have the roads and blocks running in the direction of the parallel land strips.

69. In Annex One these general guidelines are elaborated for one specific tahzim area on the near fringes of Greater Cairo.

2.9 Outstanding Issues and Next Steps

70. These proposals cannot begin to encompass the whole range of issues raised by the tahzim initiative. There are a number of difficult issues which remain as well as opportunities to make the tahzim initiative more cost-effective and replicable. These imply much more detailed studies and investigations, as follows:

Repeating and Improving Illustrative Examples

71. It should be obvious that the illustration chosen in Annex One is far from perfect, and that the approach for the El Mutamediya – Zenin area may not apply to areas with different characteristics. Thus the exercise should be repeated for other areas both around Greater Cairo and in other cities and towns which together would represent the typical typologies of agricultural areas under urbanization pressures.

Investigating the Real Economics of Land Conversion

72. Much more needs to be known about the economics of agricultural land conversion for urban purposes. What are prevailing prices and trends of land which is exchanged informally, who are the actors, and what are the micro-determinants of price variations? To what extent might land "taking" for public use be acceptable economically as well as socially?

Land Assembly and Exploring the Concept of Land Readjustment

73. The high degree of fragmentation of agricultural lands means that some land adjustment and assembly will be necessary. In the guidelines proposed here this factor has been taken into account by the creation of small "negotiation blocks". However, in Article 24 of the new Unified Planning Law[11] the concept of land readjustment is introduced. This implies that it would be possible to declare a land readjustment area, that each land owner in the area would surrender his holding and, following the deduction of land for public purposes, would be re-assigned a share of the resulting building land in proportion to his original holding. Any land owner who does not agree to the process would have his land expropriated as allowed by Law 10 of 1990, and compensated according to that law. Were such land readjustment legislation promulgated and codified, a whole new approach to implementing tahzim zones could be foreseen. However, this would mean that Egypt would be entering completely virgin territory, and international experience concerning land readjustment has not, with few exceptions such as in some East Asian countries, been very promising. Obviously, a careful study of the feasibility of this approach (including the legal and constitutional ramifications) would need to be carried out.

[11] Issued on 11 May 2008 as Law 119/2008, in Arabic.

Applying Betterment Taxes (*muqabil tahsiin*) in Tahzim Zones

74. The GOPP documentation on tahzim zones calls for the relevant Governor to impose a betterment tax on land owners to cover the costs of introducing infrastructure to the new areas, to be collected at the point of issuing building permits. This is also mentioned in the new Unified Building Law, Article 16, with reference to the *muqabil tahsiin* Law 222 of 1955. Recouping the costs of infrastructure is laudable, but there are many issues which need to be clarified. If the m2 betterment fee is so high as to make the land price un-economic, it will simply drive landowners into non-compliance and continued informality (especially since presently informal land conversion carries no infrastructure cost burden.) Also, there are many details which would need to be worked out concerning how the fees would be accounted for and managed to ensure that infrastructure is rapidly and efficiently provided to tahzim areas, and how these works would be integrated with infrastructure improvements in adjacent aashwa'i areas. .

The Land Registration Problem

75. Perhaps the most difficult issue concerns the legal stipulation that the subdivided agricultural land must be registered at the Shahr el Aqari and surveyed by the El Misaha el Misriya before subdivision and subsequent building permits can be issued. As discussed in Section 2.2 above, this will in most cases be simply impossible. It is imperative that the feasibility of a compromise system be investigated, such as an intermediate "no objection" certificate for agricultural lands where *orfi* and other ownership documents serve as sufficient proof of ownership. The important goal is to end up with organized areas where the resulting individual building plots have sufficient legal status to be "ready for building".

Relaxed building regulations

76. As implied by the planning standards advanced for the proposed A and B zones above, the small plots will make it very difficult for building designs to conform to all stipulations of the building code, particularly those concerning light wells, off street parking, etc. A simple architectural exercise could develop very simple and practical, and easy-to-understand standards for these small footprint and medium-rise buildings which guarantee sufficient space, light, and ventilation standards. This exercise would greatly help in the drafting of realistic Executive Regulations for the new Unified Planning Law.

Institutional Implications

77. The above issues beg a crucial question: what institutions can and should carry out the next steps. Certainly, as the apex organization, GOPP must shoulder much of the work, either directly or through outsourcing. But, in addition, unless local authorities are real partners, strengthening by motivated detailed planning teams, it is difficult to see how the ambitious tahzim program will ever become effective.

SECTION 3:THE DYNAMICS OF PERI-URBAN AREAS AROUND GREATER CAIRO

3.1 Introduction, Objectives and Information Sources

78. The interest in peri-urban areas of Greater Cairo derives from the importance of the until now largely ignored peri-urban phenomenon in Egypt[12] and the need to incorporate the urban-rural fringe or "rurban" dimension as part of any comprehensive urban sector strategy. Work on peri-urban areas in Egypt also provides a MENA country example which can contribute to ongoing World Bank work on the ongoing rural-urban transformation, comparing the pace, features, and impact of this transformation across countries and regions.[13]

79. The objective of this section is to explore the size and nature of the evolving peri-urban phenomenon around Greater Cairo to confirm the importance of this form of urban expansion and to suggest policy implications.

80. The information sources used in this paper are varied. The preliminary results of the 2006 Census of Egypt were a crucial base for analysis,[14] supplemented by earlier Census data and derived analyses. JICA and WB reports on Greater Cairo transportation were utilized. Field investigations were carried out and these included spot interviews with residents, property agents, and public transport operators.

81. By no means can this section be considered to have covered the peri-urban phenomenon in Greater Cairo in any great depth. It only skims the surface, and much more investigation and analysis is called for.

3.2 Greater Cairo Context

82. The Greater Cairo Region (GCR) is defined as the Governorate of Cairo, plus the cities of Giza and Shubra el Kheima, plus nine rural districts of Giza and Qaliubia Governorates, plus the eight new towns located around Cairo (including 10th of Ramadan). Greater Cairo Region is considered the seventh largest metropolitan area in

[12] The only known study of the phenomenon in Egypt is found in the PhD Thesis of Dr. Ayman El Hefnawi.

[13] MNA Sustainable Development Department (MNSSD) in collaboration with the Spatial and Local Development Team in FEU, Sustainable Development Network.

[14] The preliminary results of the 2006 Census are available only at the governorate and markaz levels, and do not yet include many socio-economic and building data sets. The Consultants were very fortunate to be supplied by GOPP with raw headcount data from the 2006 Census down to the census enumeration level (shiakha and qaria) for most of Greater Cairo.

the world and also the densest in terms of population per km2.[15] It is a "primate" city which dominates the Egyptian economy even though it contains only about 22% percent of the nation's population. For example, in Greater Cairo are found roughly 60% of Egypt's cars, 50% of buses, and 33% of trucks. Also in Greater Cairo are 55% of university places, 46% of hospital beds, and 40% of pharmacies. In population terms, Greater Cairo is over 4 times larger than Alexandria, the second largest Egyptian city, and completely dwarfs all other towns (Port Said, the third largest city, has a population of only 560,000).

83. Overall, the population of the Greater Cairo Region is growing only slightly faster that that of the nation's population (2.1% per year versus 2.03% per year). The massive rural to urban migrations peaked in the 1970s and are now very minor.

84. Population growth and shifts over the last ten to twenty years can be summarized as follows:

- Continuing growth of mature and inner fringe informal areas, mostly through densification

- Continuing dramatic population loss in city core and historic areas

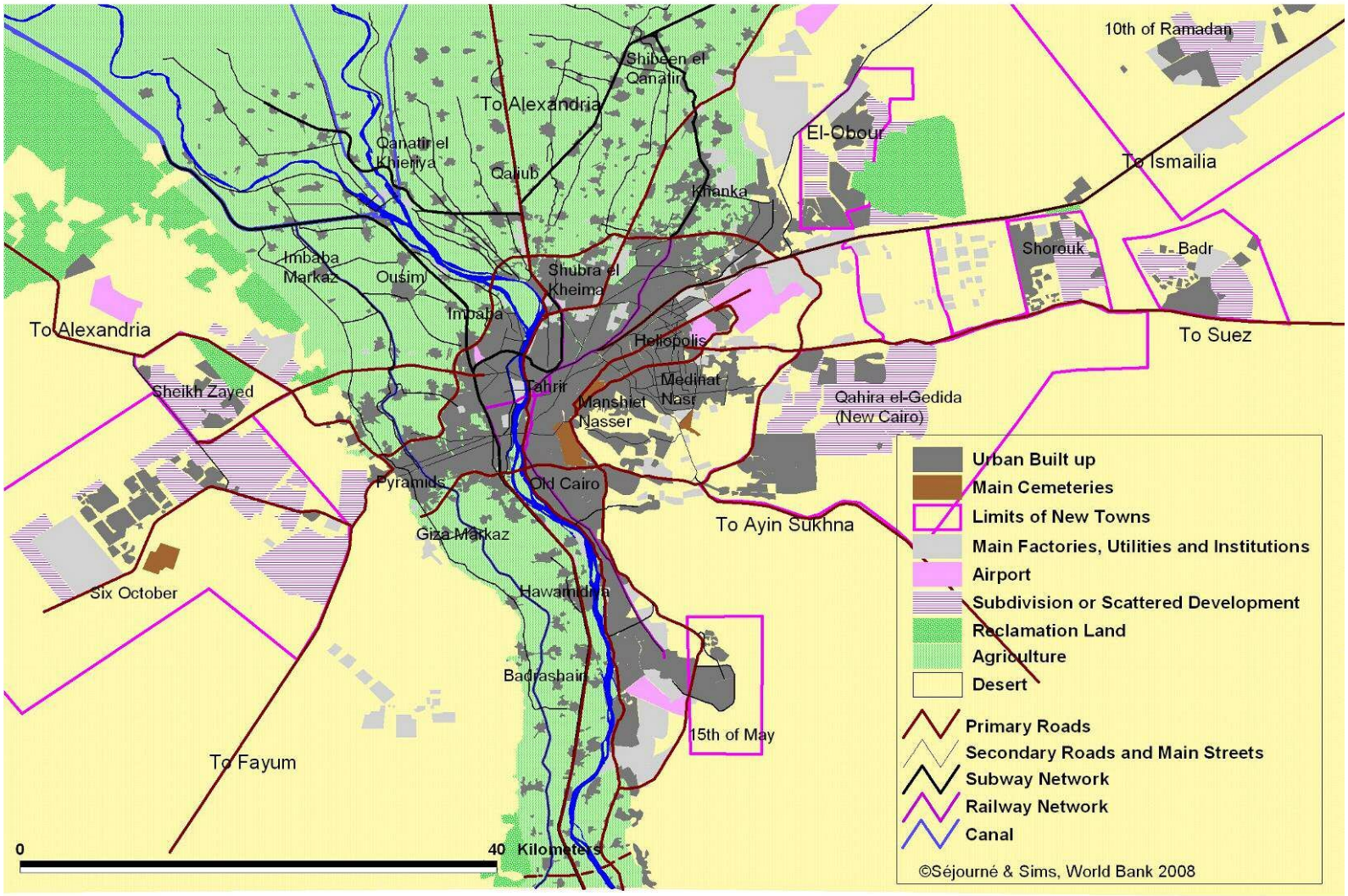
- Only a few formal, planned areas growing rapidly (Medinet Nasr and Zahra el Maadi, for example)

- New towns are growing fast, but from an extremely low population base. All together new towns around Cairo only absorbed 14% of Greater Cairo's population increase 1996-2006. (For more information on new towns around Greater Cairo, see Section 4 below.)

- There has been significant population growth and physical expansion in far fringe towns and villages (especially in the 1996-2006 period).

[15] GOPP, JICA, The Strategic Urban Development Master Plan Study of the Greater Cairo Region, Draft Interim Report, October 2007, Nippon Koei Co. Ltd. And Katahira & Engineers Intl.

Figure 5 Greater Cairo Context Map 2005



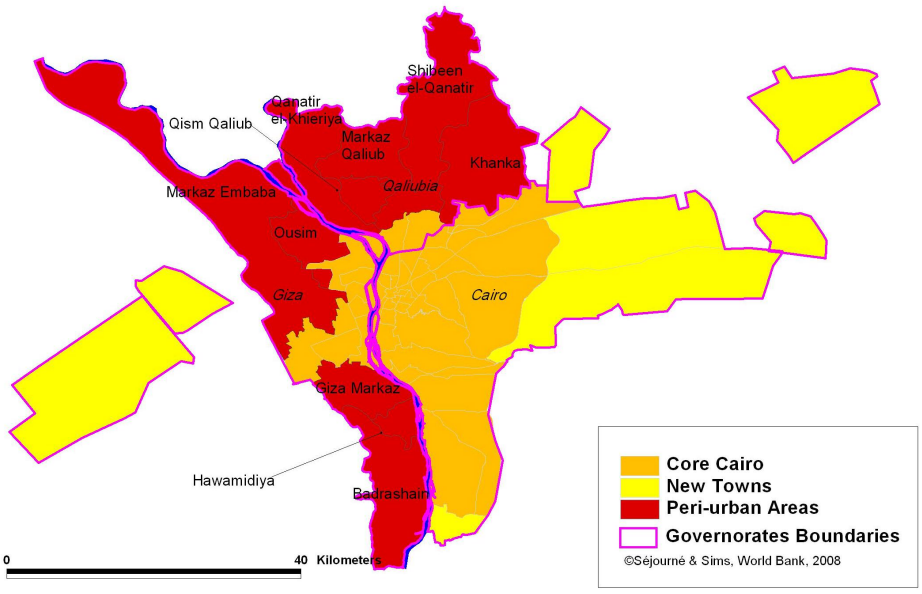
3.3 Definition of Peri-urban Areas of Greater Cairo

85. This Note applies a definition of peri-urban areas to those localities where the rural-urban transformation is taking place – those vast areas that surround cities which are neither strictly rural not urban.[16] For this reason we concentrate on the agricultural plain found both to the north and south of Greater Cairo proper, where there is a long-existing and well-articulated rural life and settlement pattern and where a vibrant transformation is taking place. The Note does not include the desert areas adjacent to Greater Cairo found both to the east and west of the metropolitan core. These formerly empty spaces are now crucially important for Greater Cairo's expansion, but they do not represent loci of the rural-urban transformation.

86. In this analysis peri-urban areas are the nine rural administrative zones (marakaz) on the Greater Cairo Region periphery where population growth has been significantly above prevailing natural increase rates (which currently is 1.66% per year for Cairo Governorate and 1.9 % per year for Delta governorates based on vital statistics). The selected marakaz are:

> In Qaliubia Governorate: Qaliub (including Khusus), Al Khanka, Shibeen el Qanatir, and El Qanatir el Khieriya
> In Giza Governorate: Giza, Embaba, Ousim, Badrashain, and El Hawamidiya

Figure 6 Location of the Core, Peri-urban, and New Town Areas of GCR



[16] This definition comes from "Peri-urban Areas: No Man's Land or Keystone for the Rural-Urban Transformation?" Concept Note for Learning and Analytical Program, Spatial and Local Development Team, FEU-SDN, August 2007.

87. Of the nine markaz, six are to the north of the GC agglomeration and three are to the south. All have been typical flat, irrigated agricultural areas, although in Khanka (northeast of Cairo) some slightly higher, formerly desert land can be found. These nine markaz range from only five kilometers from the center of Cairo (in Giza directly west of the core) to 10 to 25 kilometers (the bulk of the markaz) to 35 kilometers at their most extreme extents north and south.

88. It should be noted that Census boundary changes and reclassifications between 1986-1996 and 1996-2006 have complicated the demographic analysis of peri-urban areas, particularly as relates to the markaz of Giza Governorate. Every effort has been made to check for consistency at the qaria and shiakha level, and the figures presented here make the best estimates possible for peri-urban GCR given the sometimes puzzling Census re-classifications. For example, the recently designated urban Qism of Waraq, with over 500,000 inhabitants, has not been included as a peri-urban area although many would argue that it should be so considered.

3.4 The Peri-urban Populations and their Rapid Growth

89. The current (2008) population of the nine peri-urban marakaz of Greater Cairo can be estimated at 4.21 million inhabitants, representing 24.7% of Greater Cairo's 17.0 million inhabitants. As can be seen from Table 3.1, the population of these areas has been growing rapidly, averaging 3.27% per annum over the 1996-2006 period (during which Greater Cairo grew at an annual rate of 2.10%, and the nation at 2.01%). Growth in peri-urban areas was also strong in the previous1986-1996 period, when it averaged annual increases of 3.3%.1

Table 3. 1: Population and Population Growth of Peri-urban Marakaz of GCR

Peri-urban Markaz	1986	1996	2006	Absolute Increase 1996-2006	Annual % Increase 1996-2006
Al Khanka (+Khusus)	255361	458986	726815	267829	4.70
Qanatir al Kheiriya	220264	296732	381431	84699	2.54
Shibeen al Qanatir	257212	338628	421946	83318	2.22
Qaliub (markaz and qism)	269461	361561	472036	110475	2.70
Hawamidiya	924480	115376	140530	25154	1.99
Badrashain	228781	258858	380617	94759	2.90
Ousim	139813	193751	275465	81714	3.58
Embaba (+Kirdasa)	471542	626008	897097	271089	3.66
Giza	128462	180568	246325	65757	3.15
Total Peri-urban GCR	**2063376**	**2857468**	**3942262**	**1084794**	**3.27**

Source: CAPMAS, Censuses of 1986 and 1996 and preliminary results of 2006 Census

90. The rates of population increase have not been uniform through the peri-urban space. Some areas only registered modest growth, and others grew at rates much higher than the average. Each of these variations can be explained in terms of location or the peculiarities of Census markaz boundaries, and these are discussed in following sections

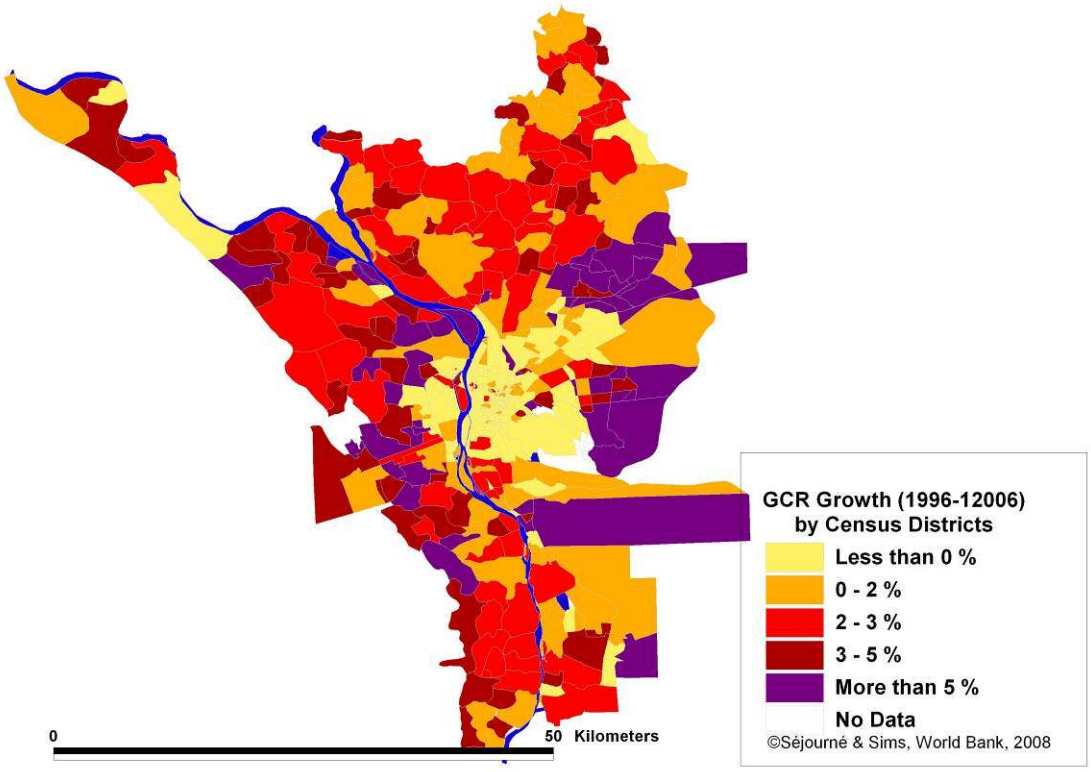
of this report. Looking at individual towns and villages, the growth rate variations are even more pronounced. Some locales registered extremely high rates of growth, as shown in Table 3.2.

Table 3. 2: Fastest Growing Peri-urban Settlements

(with populations over 15,000 inhabitants)

Peri-urban Settlement	Associated Markaz	2006 Population	% Annual Growth 1996-2006
Khusus (rural qism)	Al Khanka	293181	6.96
Abu Sir (village)	Al Badrashain	26957	6.90
Minta (village)	Qaliub	67779	6.72
Birqash (village)	Al Badrashain	21000	6.20
Al Qalag (village)	Al Khanka	87744	5.62
Al Koum al Ahmar (village)	Ousim	26509	5.60
Mit Qadus	Giza	15728	5.55
Al Gabal al Asfar (village)	Al Khanka	52096	5.33
Birka al Khaiyam (village)	Embaba (Kirdasa)	15010	5.30
Arab al Aabayda (village)	Al Khanka	46243	4.99
Zawiya Abu Musallim	Giza	22279	4.68
Saft al Laban (village)	Embaba (Kirdasa)	134571	4.72
Al Zaydiyya (village)	Ousim	20965	4.53
Beni Magdul (village)	Embaba (Kirdasa)	22420	4.36
Al Gizzaya (village)	Embaba	19829	4.34
Abu Nomrous (town)	Giza	57326	4.23
Kafr Hamza (village)	Al Khanka	16793	4.21
Al Baragil (village)	Embaba	71326	4.15

Source: CAPMAS, Preliminary results of 2006 Census



91. Note that all but two of these rapidly growing areas are village settlements. In contrast, the established urban towns found in peri-urban Greater Cairo (e.g. Qaliub, Shibeen al Qanatir, Al Qanatir al Khieriya, and Al Howamidya) have not grown at remarkable rates.

92. What is the contribution of peri-urban population growth to the growth of Greater Cairo as a whole? Table 3.3 shows that peri-urban areas represent a huge share of the metropolitan population, that this share is increasing significantly, and that, in absolute growth terms, there is a remarkable and continuing influx of population into these areas.

Table 3. 3: Peri-urban Share of Greater Cairo's Population and Growth 1996-2006

Greater Cairo Region	1996 Population	2006 Population	% Annual Increase	Absolute Increase	Share of Absolute Increase
Core Agglomeration*	10188333	11748240	1.43%	1517102	50.3%
Peri-urban Areas (9 markaz)	2857468	3942262	3.27%	1084794	35.9%
New Towns (8 towns)	184695	601767	12.54%	417072	13.8%
Total GCR	**13230496**	**16292269**	**2.1%**	**3018968**	**100%**

* Includes Cairo Governorate plus the cities of Giza (with Waraq) and Shubra al Kheima
Source: CAPMAS, derived from 1996 Census and preliminary results of 2006 Census

93. A number of striking comparisons can be made from these figures.

- In 2006, peri-urban areas made up 24.2% of the population of the Greater Cairo Region, compared to only 3.8% for the new towns. Additionally, although the new towns recorded very high annual growth rates for the 1996-2006 period, this growth only represented 13.8% of the GCR absolute increase over the period, whereas peri-urban areas absorbed 35.9% of GCR's increase. That is, some 1.08 million inhabitants were added to peri-urban areas compared to only 417 thousand to the eight new towns around Cairo, or 2.6 times as much. And it should be noted that over the period the new towns around Cairo have been the target of colossal public as well as private sector investments, whereas peri-urban Greater Cairo has been starved of public funds.

- Assuming the observed 1996-2006 growth rate of 3.27% p.a. for peri-urban Greater Cairo continues over the next ten years (and it may very well exceed this rate), then another 150,000 inhabitants will be added each year and the population of peri-urban Greater Cairo will reach 5.44 million by 2016. If projected to 2027 (the current planning horizon for Greater Cairo) this would imply a peri-urban population of 7.5 million inhabitants.

- The population of peri-urban Greater Cairo has probably already surpassed that of Alexandria, Egypt's second largest city, and will certainly significantly exceed Alexandria's population within five years.

- Parenthetically, the 2006 population of peri-urban Greater Cairo exceeds that of Egypt's 3rd through 9th largest cities combined.

3.5 Nature of Peri-urban Expansion: Settlement Patterns, Quadrants and Corridors

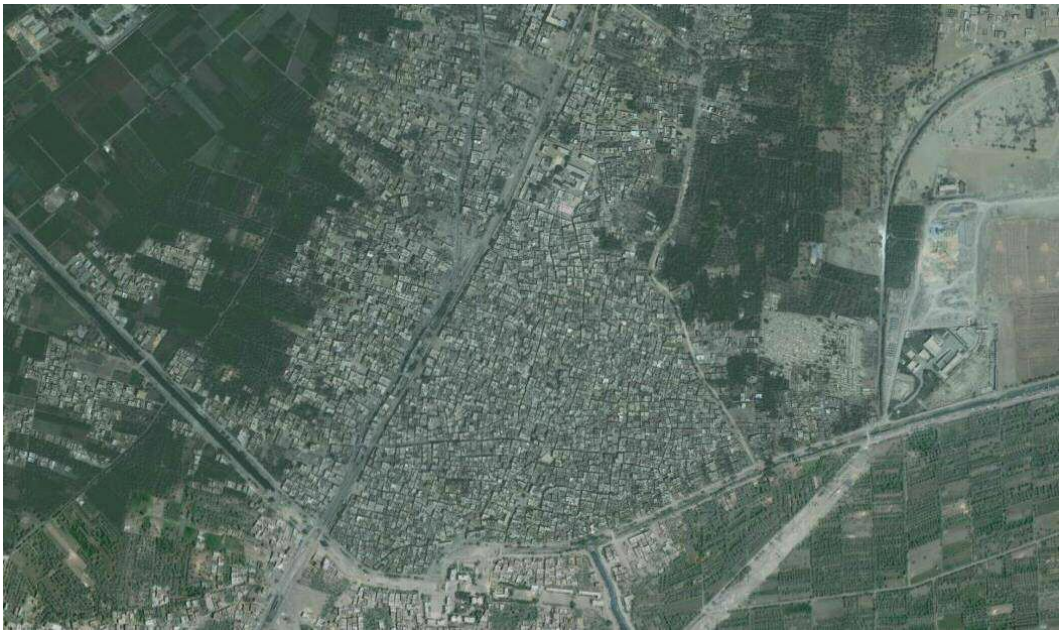
94. In peri-urban Greater Cairo urban expansion is almost entirely polycentric in nature. That is, existing towns and villages (most of which are at least 80 years old) simply expand progressively outwards into the surrounding agricultural plain. This form of urbanization is inherent in informal development, which is always progressive and incremental, both horizontally and vertically (more floors added) over time.

95. Only in the northeast quadrant (the Khusus – Khanka – Abu Zaabal areas) has this polycentric growth merged into what could be called a more or less a continuous agglomeration which has become grafted onto the main conurbation. This quadrant is growing extremely rapidly (annual population increases of well over 5%), due to its excellent public transport and road connections to northeast Cairo, which is itself probably the main axis of metropolitan expansion (the Ismailia Road corridor).

96. There is a lack of the kinds of strip corridor development which is so common around other metropolises in developing countries -- that is continuous and sprawling development along main axis roads leading through peri-urban areas out of Greater Cairo. This had begun to occur up until the 1970's, but due to the prohibition of building

on agricultural land (at least where it is visible) such corridor sprawl has since been largely arrested.

Figure 7 Qalag, north of Cairo in Qaliubia Governorate



97. Also, in peri-urban Greater Cairo there is a notable lack of huge modern real estate projects such as housing estates, business complexes, shopping malls, leisure centers, etc., either those financed by native capital and by global or Middle East investors. These are located either in prime inner city sites or in the desert areas and new towns adjoining Greater Cairo.

98. In peri-urban Greater Cairo the size of settlements varies greatly, from small villages and hamlets with populations of less than 5000 persons to huge agglomerations of more than 100,000 persons. Due to the nature of village and informal development, ultimate net residential densities in these settlements are very high – at least by international standards – easily exceeding 900 persons per hectare.

99. In terms of the quadrants or axes of development, most peri-urban expansion is going to the north. This is logical, simply because the agricultural plain to the north of Cairo fans out into the Delta, offering a vast and almost limitless nexus of villages and towns upon which progressive informal development can be grafted. By contrast, opportunities for expansion to the south are limited by the very narrow agricultural plain. Axial or quadrant trends can be summarized as follows:

- Within the northern areas, the greatest growth and physical expansion of settlements in the El Marg – Qalag – Khanka – Abu Zabal northeast axis (including Khusus). This is probably due to (1) excellent public transport links, especially from El Marg (a metro terminus and ring road intersection) by rail and micro-bus, and (2) availability in some areas such as El Khanka of marginal and desert land for physical expansion

- A second northern growth axis is Shubra el Kheima – Qaliub – Shibeen el Kanatir. This is probably due to the good public transport links, especially from Shubra el Kheima (a metro terminus) by the main Alexandria rail line and micro-bus.

- A third northern growth axis is Embaba – Waraq – El Qanatir el Khieriya northwest along the Nile (with a parallel axis further west from Ousim and along the Marrioutiya Canal)

Figure 8 Abu Zaabal, northeast of Cairo in Qaliubia Governorate

- To the south there is only one main growth axis: Munib – El Hawamidiya – Badrashain (and on to El Ayyat), west of the Nile along the main highway and rail line to Upper Egypt

- There are indications that there is another emerging growth axis to the south, east of the Nile, along the – Tibin – El Suf – El Atfih route, probably due to the availability of desert fringes for informal settlement expansion. However, El Suf and El Atfih marakaz are outside the boundary of the Greater Cairo Region.

3.6 Economic Activities in Peri-urban Areas

100. Although officially the peri-urban areas of Greater Cairo are classified as rural, over the last few decades the role of agriculture has diminished significantly. As can be seen from Table 3.4, by 1996 the economies of GCR peri-urban areas (as expressed by the sectoral breakdown of the economically active population) were quite diverse. Agriculture only accounted for 21% of the active population (compared to 47% for rural Egypt), and the largest single sector was manufacturing with 22% (higher even than the national urban average). Also, the construction, transport, and commerce sectors were all well represented. Thus by 1996 it could be said that peri-urban Greater Cairo was already acquiring purely urban attributes, albeit with a small be still significant agricultural labor force. Although similar data for 2006 are not yet available, it can be said with confidence that the "urbanization" of the peri-urban economy has continued.

101. In the 1940s through 1960s a number of medium-sized and large factories were established in peri-urban Greater Cairo, especially along the Alex Agricultural Road and in Abu Zaabal, but with others sprinkled throughout the landscape. Since the 1970s practically no new factories have been established (due to the policy of obliging new industries to locate in the desert new towns). And except for a power station in Waraq and the massive wastewater treatment plant in Gabal el Asfar, no major utilities or institutional land uses have been established in peri-urban areas in the last twenty five years.

Table 3. 4: Percentage Distribution of Economically Active Population of Selected Geographic Areas by Economic Sector

Economic Sector	Per-urban GCR	Gharbiya Governorate	Suhag Governorate	All Egypt Rural	All Egypt Urban	All Egypt
Agriculture, hunting & fishing	21.3	26.5	43.2	47.3	8.5	29.8
Manufacturing	21.8	17.5	6.5	9.7	18.9	13.8
Construction	11.7	6.3	9.7	6.4	10.3	8.1
Commerce	12.1	8.1	7.8	5.8	13.7	9.4
Transport, storage & communications	7.7	5.4	3.8	4.2	7.8	5.8
Public admin & defense	7.1	11.4	9.1	8.4	11.9	10.0
All other sectors	18.5	24.7	20.1	18.1	28.8	23.0
Total Economically Active	100	100	100	100	100	100

Source: 1996 Census of Egypt (results for 2006 are not yet available)

102. Agriculture continues to be important, all of which is made up of intensive small holder farms which concentrate on fruits and vegetables as well as animal husbandry, mainly aimed at Greater Cairo markets. There are no precise figures on the loss of agricultural land due to urban (mostly informal) expansion in peri-urban areas, but it is probably not as great as some commentators assume.[17]

103. It should be added that the towns and villages in peri-urban Cairo contain a myriad of small and micro commercial and service enterprises which mainly serve the local populations. There are also a large number of transport, storage, and distribution enterprises, including the repair and reconditioning of transport vehicles (mainly trucks and small buses).

[17] The JICA Strategic Urban Development Plan for Greater Cairo estimated land cover in peri-urban Greater Cairo in 2001 and 2007. It was calculated that the agricultural land area was reduced by 2,300 hectares, all due to urban expansion (p. 2-35). This translates into a reduction of agricultural land of 383 hectares per year, or an annual reduction of 0.52%. (The total area under agriculture was calculated to be 73,000 hectares in 2001.)

3.7 Crucial Role of Public Transport in Peri-urban Areas

104. In Greater Cairo only 14% of households own a vehicle (and this includes taxis and small trucks), thus public transport is an absolutely essential factor in any urban development. Peri-urban areas enjoy quite good and affordable means of public transport, which offers a mix of different modes:

- Privately operated micro-buses (11 to 18 seats)
- Public (CTA and cooperative) mini buses and large buses
- The Cairo metro (two lines to the north and one to the south with termini at the edge of the peri-urban zones
- Suburban rail run by the Egyptian Railways Authority (four lines to the north and one line to the south)
- The three-wheeled taxi (touk-touk) which has recently made its appearance and provides local transport within settlements

Figure 9: Shubra el Kheima Transport Interchange

105. These modes are all used, sometimes in combination, by inhabitants of peri-urban areas to access destinations throughout Greater Cairo. Probably the single most important mode is the private mini-bus, which only appeared in Greater Cairo in 1977 with 800 vehicles on 11 fixed routes. By 1998 this mode had reached 27,300 vehicles on 650 routes, carrying an estimated 2.6 million passengers per day (and these figures relate to Giza and Cairo Governorates only). The mini-bus system is ideal for serving peri-urban settlements, since new routes are easily established by private operators to meet nascent and growing demand from newer areas and as populations grow. The three metro lines also are extremely important for peri-urban areas since at their termini have developed important interchanges (El Marg and Shubra el Kheima to the north and Munib to the south), whereby passengers coming from outlying settlements by mini-bus

or suburban rail can change and ride into the center of Cairo at speeds which exceed the often clogged surface road corridors. (Commuting times from north Qaliubia to central Cairo average between 1 and 1 ¾ hours, depending on traffic congestion.)

Figure 10: Mini-bus stand on the Nile, Kanater El Kheiriya, Qaliubia Gov

106. Fare costs are reasonable, although they can represent a significant part of a poor family's monthly budget. For example, someone living in the north of the Qaliubia peri-urban area and commuting daily to downtown Cairo will spend between LE 50 and LE 75 per month, which represents 5 to 8% of the median urban household's income (and much higher percentage for the very poor household). And, it must be pointed out, the mini-bus uses heavily subsidized diesel fuel (LE 0.60 per liter or US$ 0.36 per American gallon). Were subsidies removed or even sharply reduced, passengers will be facing dramatically increased fare costs.

3.8 Land Markets and Land Management

107. Virtually all agricultural land in peri-urban Greater Cairo (as well as previously agricultural land which is now built upon) is privately held in freehold tenure. Most land may not be registered, but the tenure of this land is very secure and ownership is recognized by all. Land is easily bought and sold and subdivided, with most transactions carried out through simple civil (*ourfi*) contracts.

108. The informal process of conversion of agricultural land to urban use is also straightforward. A farmer will commonly divide agricultural strips into several building plots (average size 110 m2) or might sell the whole strip to a middleman subdivider. In both instances, he will be paid the market price. Raw land prices vary considerably, with higher prices for those parcels which are closest to existing buildings where construction

will not be very visible to authorities.[18] As a rule of thumb, building land will fetch between 8 and 12 times the price for agricultural land. Thus the farmer selling parcels for building purposes will enjoy a huge windfall profit.

109. For all intents and purposes, there is no urban planning or land management carried out by government in peri-urban areas. Since building on agricultural land is officially prohibited, by definition government cannot impose planning or management procedures to guide development. Nor can it impose fees or taxes to capture some of the increased value of urbanizing land.

3.9 Poverty and Living Conditions in Peri-urban Areas

110. According to what statistics are available, inhabitants of Greater Cairo's peri-urban areas appear to be mostly poor or of modest incomes, but not particularly poor when compared to purely rural areas (especially those in Upper Egypt). The only attempt to calculate poverty indices at disaggregated geographic levels (both markaz and shiakha/qariya) was carried out by the Population Council for the SFD in 2006, using a regression equation to estimate average percapita consumption based on variables from the 1996 Census. The results are shown in Table 3.5.

Table 3. 5: Peri-urban Poverty Indices by Markaz, 1996

Peri-urban Markaz and Comparison Locations	Average Predictive Percapita Consumption in LE/year (1996)	National Poverty Ranking (out of 302 markaz in Egypt)
Badrashayn (Giza)	1313	84th
Awsim (Giza)	1377	103rd
Giza (Giza)	1369	106th
Embaba (Giza)	1445	126th
Al Hawamdiya (Giza)	1505	137th
Shibin al Qanatir (Qaliubia)	1559	149th
Qaliub (Qaliubia)	1566	153rd
Al Qanatir al Kheiriya (Qaliubia)	1620	163rd
Al Khanka (Qaliubia)	1697	184th
(second tier markaz south of GCR):		
Atfih (Giza)	1153	37th
Al Ayyat (Giza)	1199	48th
Al Saf (Giza)	1307	81st
(comparison geographic areas):		
All peri-urban GCR	1475	
Peri-urban Giza	1380	
Peri-urban Qaliubia	1620	
Cairo Governorate	2309	
Alexandria Governorate	2223	
National Urban Average	1997	
National Average	1596	

Source: SFD Poverty Mapping (2006)

[18] Land prices in peri-urban areas also reflect metropolitan land-price gradients, with land in settlements nearer the metropolitan core fetching higher prices than similar parcels located in distant and far-peripheral settlements.

111. Only two of the nine peri-urban markaz of Greater Cairo have consumption indices which are above the average for the whole country. And when compared to Cairo or Alexandria or the national urban average, peri-urban areas of Greater Cairo are significantly poorer (especially those located in Giza Governorate). It is interesting to note that the three "second-tier" markaz located just south of Greater Cairo's peri-urban areas, which are also growing rapidly, all exhibit quite poor consumption indices. For example, Atfih (east of the Nile about 50 kms south of central Cairo) is the 37th poorest markaz in the country (out of 302 markaz).

Figure 11: Garbage-clogged canal near Bartas, Embaba Markaz, Giza

112. According to the Census of 2006, peri-urban areas of Greater Cairo enjoy good water and services. Households connected to electricity systems exceed 98% in all settlements, and those connected to water systems exceed 95% in all settlements. Of course, these figures do not reflect the frequently poor quality and occasional cuts in these services.

113. According to the Census of 2006, wastewater services are not so good. Whereas in areas classified as urban in peri-urban GCR over 73% of households were connected to sewerage systems, this figure falls to less than 20% in peri-urban areas classified as rural. Such levels of wastewater connections significantly lower than the GCR averages (95% of households connected in urban GCR and 31% in rural GCR).

3.10 Environmental Problems and Conflicts in Peri-urban Areas

114. Even though there is intense (informal) development in peri-urban towns and villages around Greater Cairo, and even though the populations of these settlements are growing rapidly, the adverse environmental effects are few. This is mainly due to the GOE policy of prohibiting the conversion of agricultural land to urban use, combined with the GOE policy and associated incentives to direct all formal and corporate industrial, real estate, and institutional projects towards the desert and, in particular, the new towns around Cairo. Thus peri-urban Greater Cairo is relieved of the kind of land use conflicts which generate environmental problems around many rapidly expanding cities.

115. Even the considerable informal urban development on agricultural land around peri-urban settlements has not eaten up much of this highly productive asset. As discussed in Section 7 above, over the 2001-2007 period it was calculated that agricultural land lost in peri-urban Greater Cairo was running at an average of 383 hectares per year, or an annual reduction of 0.52%. (The total area under agriculture was calculated to be 73,000 hectares in 2001.)

116. However, in peri-urban areas there is a problematic interface between expanding informal settlements and adjacent agricultural land. This is a common problem all over the Nile Valley and Delta, but it is more acute on urbanizing fringes such as around Greater Cairo. There are two main problems:

(1) the seepage of wastewater from septic tanks and leaking pipes into irrigation canals, with the resulting contamination of agricultural produce, and

(2) the indiscriminant dumping of solid wastes into both irrigation canals and drains, due to the almost total absence of solid waste collection and disposal systems in expanding villages.

117. These problems are well known and solutions which could be applied to peri-urban settlements around Greater Cairo are discussed in Sections 15 and 16 below.

3.11 Local Government Institutions, their Capacities, and Jurisdictional Problems

118. Peri-urban Greater Cairo, like all of rural Egypt, has for decades been divided into three tiers of local government. There are village administrative units (*magalis qarawiya*), city councils (*magalis al mudun*) and district administrations (marakaz). All are executive bodies with appointed staff, but all have parallel elected local popular councils (LPCs). And all fall under the over-arching governorate administration, which is the main center of financial and administrative power.

119. The geographic boundaries of each level of local government are well known and rarely change. Therefore there are practically no purely jurisdictional problems, at least

as concerns local administration.[19] School, health, police and utilities service areas usually but not always coincide with these administrative jurisdictions, but all such services are unified and coordinated at the governorate level.

120. Some administrative confusion is caused by the infrequent re-division of administrative areas and the re-classification of rural units (*qura*) into urban areas (*aqsam* or *mudun*). The central government (specifically the Ministry of Local Development and Ministry of Interior) are said to be reluctant to re-classify a village area as an urban place, since this implies that a higher level of services are needed and thus greater budgetary allocations are required. It is certainly odd that some agglomerations of over 150,000 inhabitants in peri-urban Greater Cairo remain "villages".

121. Throughout rural Egypt local administrations at all levels are weak. Over-staffing is common. Employees are poorly trained and poorly paid, and resources, especially budgets for recurrent expenses, are very limited. There are no performance incentives (all advancement is by seniority), nor do local authorities enjoy own-source revenues or discretion over how to manage budgets. Practically all investment as well as operating funds are allocated by the central government on an annual basis. There have been and continue to be numerous efforts to improve Egyptian local administration, but these efforts will have little impact until the legal framework which enshrines an extremely centralized bureaucracy and no local financial independence is modified.

122. Local administration in peri-urban Greater Cairo is not much different than that found throughout rural Egypt. The problem is that, unlike most of rural Egypt, peri-urban areas around Cairo are experiencing huge additions to their populations, which puts enormous strains on what is already a weak administrative system.

3.12 Government Planning and Investment in Peri-urban Areas

123. In the various master plans and structure plans produced for Greater Cairo (years 1983, 1991, and 1997) all of peri-urban areas of Greater Cairo were assumed to remain primarily agricultural with a stable population. Even major transport arterials were rarely planned to cross peri-urban areas.[20] It is interesting to note that the recently completed strategic planning exercise carried out by GOPP and JICA labels peri-urban Greater Cairo as "villages and small towns" which are targeted only for "development control" in the 2027 proposed general land use plan (p. S-47). The plan forecasts modest population growth for these areas, from the current 3.2 million inhabitants to between 4.3 and 4.6 million by 2027 (the lower figure assumes a greater population absorption by the new towns). This implies a projected annual rate of population increase of "villages and small

[19] Statistical jurisdictions (i.e. the Census) are however somewhat confusing. The official statistical definition of urban place in Egypt is becoming more and more irrelevant as re-classification does not keep up with urbanization. And when Census tracts are changed or amalgamated, it is often difficult to understand the changes since until now good maps of Census tract boundaries are not generated by CAPMAS.

[20] Even the 26 July Mahwar corridor, finished in 1999, which crosses through peri-urban Giza, was not part of any master plan.

towns" of between 1.49% and 1.83%, not even the rate of natural increase. This seems to be an exercise in wishful thinking, given that these same areas grew at 3.87% annually in the 1996-2006 period, and every indication is that the same or higher rates will apply in the future.

124. In terms of government investment strategies aimed at peri-urban Greater Cairo, these can only be said to exist in sectoral budget allocations for infrastructure and public facilities, much as is programmed for any rural area of Egypt. That these investments are totally insufficient for peri-urban Greater Cairo should be clear from the following discussions.

3.13 What is Spurring Growth in Peri-urban Areas? Why Are These Areas So Attractive to Inhabitants of Greater Cairo?

125. The main reason for the measurable and growing attraction of peri-urban areas to a vast block of Greater Cairo's population can be said to relate to the array of affordable housing solutions that the mainly informal housing markets generate in these areas. Land accessibility and price is conducive for informal settlement creep and infill. Also, there is less control prohibiting building on agricultural land in these settlements than along the fringes of the core agglomeration of Greater Cairo (development is largely out of sight). These two factors result in housing/shelter packages on the market which are affordable, at least compared to other parts of GCR, especially for lower income families. Anything from a single room to a large flat or traditional rural house can be found on the market either for rent or purchase.[21]

126. Combined with the housing factor is the fact that peri-urban Greater Cairo is well served by affordable public transport systems and networks, which provide the needed mobility/access at cheap cost even from far distant settlements to the Greater Cairo core. Thus potential residents can and do calculate the trade off between cheaper housing and higher expenditures on commuting.

127. Furthermore, the local economies of existing peri-urban settlements easily accommodate incremental growth and add needed services. And considerable employment and petty entrepreneur opportunities are generated within villages and informal settlements themselves Although public services and infrastructure may be overburdened (and getting more so) in these areas, the situation does not seem to have gotten out of hand, so far at least.

128. Final, social cohesion seems to be good in peri-urban settlements, even with substantial numbers of new arrivals. This is partly due to dynamic of informal settlement

[21] At present there is only anecdotal information on land and housing markets in peri-urban areas of Greater Cairo. However, in the expanded housing demand survey to be carried out in 2008 (Ministry of Housing, Utilities and Urban Development, Ministry of Investment, and USAID) peri-urban areas of Greater Cairo are to be targeted as a separate geographic area for household sampling, and this should generate a wealth of information about housing markets and housing dynamics in these areas, and allow comparisons with other geographic areas of Egypt.

processes (which relies upon and works through social groupings), but also simply because there are existing tight communities upon which to build.

3.14 Peri-urban Problems and Challenges: Infrastructure and Service Delivery

129. The main problems found in the peri-urban areas of Greater Cairo, as expressed by informants and residents, can mostly be blamed on a lack of sufficient public investment. It is infrastructure and public facilities which are in a poor state and cannot serve the large and growing populations of this urban hinterland. Although it is difficult to generalize across the whole peri-urban geographic space, the following can be said to be the main problems:

Wastewater systems do not cover most of the expanding villages, although all of the established towns have such systems in the central areas. Even where systems networks exist, they tend to be overburdened and blockages and overflows are common. Also, not all buildings are connected to the networks (due to the high cost of such connections). Villagers complain of rising water tables, which reduces the efficiency of their individual septic tank and soak away systems, requiring frequent (and costly) emptying by suction truck.

Water systems cover virtually all peri-urban villages and towns, but water cuts are common and inhabitants complain of chronic low pressure (especially on the fringes of service areas), forcing those in multi-story buildings to install small electric pumps. Also, water losses are said to be high and the water quality is variable, probably due to back-contamination from groundwater sewerage effluent when system pressure drops.

Electricity networks cover virtually the whole peri-urban landscape, and power is considered by inhabitants the least problematic of all utilities. Yet due to ever increasing system demand, complaints are heard of low voltage and brownouts.

Major roads, especially those which are regional or national in nature (such as the Cairo-Alex Agricultural Road, the Upper Egyptian Road, and the Ismailia Canal Road) are in good condition although road geometry and traffic control could be greatly improved.

The condition of minor roads and streets and access lanes is, on the other hand, deplorable. Practically none of these are paved, or if once paved have been so badly maintained that they have lost their paving. The economic costs, in terms of lost time and depreciation of vehicles, must be enormous.

Public facilities, especially schools at all levels, are said to be acutely deficient, overcrowded, and poorly run.

Solid waste collection and disposal is limited to the center of the main peri-urban towns (e.g. Qaliub, Qanatir el Kheiriya, Khanka, etc.), with virtually no regular collection of wastes in any of the expanding village settlements nor on the fringes of agglomerations.

Irrigation Canals and Drains, which run throughout the peri-urban landscape, are mostly open channels which become clogged with rubbish and garbage. This is due to the rural practice, in the absence of solid waste collection systems, of dumping into canals, and it is a serious environmental problem throughout rural Egypt. However, it is particularly acute in peri-urban Greater Cairo, where the volume of wastes generated by the rapidly increasing populations is very high. In the centers of some villages and towns canals have been covered (usually under joint SFD/Ministry of Water Resources initiatives), but this solution is expensive and can never extend to all the hundreds of kilometers of canals found crisscrossing the peri-urban landscape.

130. Most of these problems either relate to insufficient investment budget allocations to peri-urban areas or structural problems in the sectors themselves. Public investment budgeting in Egypt is an annual event which is very centralized, and growing peri-urban areas simply do not capture their share, mainly due to central budgeting mechanisms, where investment allocations tend to follow -- in each geographic area and sector -- the levels of previous years, and do not take into account rapid population growth and associated needs.

3.15 Towards a Policy Framework for Peri-urban Areas of Greater Cairo

131. There is currently a complete policy vacuum as concerns Greater Cairo's peri-urban areas. As mentioned above, the very phenomenon of huge population growth in these areas is hardly recognized.

132. A first step in formulating policies is very simple and obvious: the GOE must recognize and track the rapid population growth and the increasing concentration of poor and modest income families in peri-urban areas.[22] The fact that there are currently nearly four million inhabitants in peri-urban Greater Cairo (and that at least another 1.4 million inhabitants can be expected in the next ten years) must be recognized and incorporated at three levels:

- At the governorate and local authority level, especially in terms of improved service delivery
- At the Greater Cairo planning level, especially in incorporating peri-urban areas into metropolitan transport and environmental strategies
- At the national level, especially in terms of greater allocations of investment budgets to support improved service delivery and infrastructure needs in peri-urban areas

133. What might be some of the interventions that could markedly raise living standards of the existing populations in these areas, are cost effective, and meet the needs of future population growth? Table 3.6 presents the most needed interventions, set

[22] Hopefully, wide dissemination of this Concept Note will contribute to this recognition.

against institutional and funding responsibilities and also set against existing national initiatives which could easily be concentrated in these areas.

Table 3. 6: Interventions Needed in Peri-urban Areas of Greater Cairo

Intervention/Program	Responsible Authority	Existing programs to Be Replicated/Concentrated in Peri-urban Areas
Extension of water and wastewater networks and strengthening existing systems, including affordable house connections	Qaliubia and Giza Water and Wastewater Companies (and the national holding company)	Institutional strengthening and financial reform of governorate water and wastewater companies, such as currently underway in Fayoum, Kafr esh Sheikh, etc.
Build needed schools and improve vocational training	General Authority for School Building and Ministry of Manpower	Rural school building programs (such as supported by donors) and various vocational training initiatives
Street and lane paving both in towns and villages	Governorate Roads Authorities and local councils	These interventions are common throughout Egypt, it is purely a budget allocation issue
Major arterial road and intersection and traffic management improvements (and incorporation of peri-urban areas in Greater Cairo transport corridor plans)	GOPP, Ministry of Transport, Governorate Traffic Departments	Ongoing Greater Cairo transport plans and projects (including those supported by WB and other donors)
Better organization of private bus operations and improvement of modal-split nodes and stations, and licensing of tuk-tuks	Cairo Transport Authority, Governorate Traffic Departments, City Councils, Egyptian Railway Authority, Micro bus drivers associations	Ongoing Greater Cairo public transport plans and reform (including those supported by WB and other donors)
Strengthen local authorities especially at the district and town levels	Ministry of Local Development and Giza and Qaliubia Governorates	Various efforts at local capacity building, improved finances, and decentralization such as the EDI in selected districts of Behira, Qena, and Beni Suweif
Irrigation canal protection and covering	Ministry of Water Resources and Irrigation	Rural canal protection and covering programs such as those supported by SFD
Improved solid waste management (including public awareness campaigns) and extension of services to all settlements	Egypt Environmental Affairs Agency, governorates and city and village councils	Rural solid waste management programs with NGOs and/or private contractors, such as supported by EEAA, SFD, and donors
Creation of SME workshop clusters	Governorates and Ministry of Industry	SME incubator programs such as exist in industrial areas of new towns and governorates
Allow limited planned growth of settlements on private agricultural land	GOPP, Governorates	The new national program of expanded village boundaries (*al haiz al amrani*) should be prioritized in peri-urban areas

134. Three points should be stressed in considering these interventions:

- First, service delivery and infrastructure interventions will be extremely cost-effective, with the costs per beneficiary being extremely low, mainly due to the very high population densities and efficient settlement patterns.

- Secondly, practically all needed interventions already exist in Egypt, mainly as sectoral and rural development programs (as shown in column three in the above table). It is simply a matter of applying and/or concentrating these programs in peri-urban areas.

- Thirdly, in many sectors institutional and financial reform have gathered pace over the last five years in Egypt. The aim is to take advantage of these reforms and to apply them specifically to Greater Cairo's peri-urban areas. Of particular interest are means for better financial cost recovery, and the most promising areas are in the water and wastewater sectors as well as better local revenue generation, including the application of the betterment tax on land and properties (as allowed in the new, draft unified building and planning law) and revenues to be generated under the draft property tax law.

135. Finally, it is important that these proposed interventions in peri-urban areas of Greater Cairo be coordinated, and this could be achieved by setting up a simple unit or committee in both Giza and Qaliubia Governorates (each chaired by the Governor or Secretary General). Each of these units would coordinate efforts in the respective peri-urban *marakaz* (four *marakaz* in Qaliubia and five in Giza).

SECTION 4: CHANGING NEW TOWN POLICIES TOWARDS ECONOMIC SUCCESS. CASE STUDY: SIXTH OCTOBER New town

4.1 Introduction, Objectives and Information Sources

136. The aim of this section is to investigate Egypt's new towns policy, a central pillar of the nation's urban development strategy over the last 30 years. The history and growth of the new towns are reviewed, weaknesses as well as achievements are identified, and comparisons among new towns are made to identify success factors. Sixth of October New Town is taken as a case study, to delve into the details of development issues in the largest of the new towns. Finally, policy implications for improving the performance of Sixth of October New Town are discussed.

137. Information sources used in this policy note include data from the Census of Egypt, particularly the preliminary results of the 2006 Census. Another important source was the powerpoint presentation "Unlocking the Full Potential of 6th of October and Sheikh Zayed" (McKinsey and Company, May 2007). Data on housing in the new towns came from "Evaluation of Housing Subsidy Programs and Lessons Learned" (TAPR2, USAID/Ministry of Investment, April 2007). Extensive use was made of Google Earth images in spatial analysis of Sixth of October.

138. Sincere thanks are extended to the General Organization for Physical Planning for having provided the author with the McKinsey study and other data on Greater Cairo's planning.

4.2 Egypt's New Towns Initiative: History and Planning

139. The new towns policy was launched in 1970s as an official recognition by the GOE that "the old inhabited areas along the Nile valleys are no longer able to absorb the increasing population and that Egyptians have to conquer their desert land in order to ensure the sustainable growth of the nation."[23] The aim of the new towns was explicitly to attract population, create an industrial base outside the Valley, and attract public and private investments.

140. The first new town venture began in 1976 with the declaration by President Sadat of the GOE's intention to build a new, totally self-sufficient new town at a desert location about halfway between Cairo and Ismailia. To be called Tenth of Ramadan, this new city was to have a solid economic foundation based on manufacturing, and workers in the industrial enterprises were to reside in government-built housing blocks. Aimed at an ultimate population of 500,000, the design of the town was contracted by the (then) Ministry of Reconstruction to a Swedish consulting firm "Sweco".

[23] Madbouli (2005), UN Common Country Assessment in Egypt, p. 59

141. Even while Tenth of Ramadan was still on the drawing boards, other new town schemes, each to have a significant industrial base, were announced:

Sixth of October	West of Cairo at a desert location about 40 kms. from the center of the metropolis
Sadat City	100 kms. northwest of Cairo off the Alexandria-Cairo Desert Highway
El Obour	East of Cairo about 25 kms. from the city center off the Ismailia Desert Highway
New Amiriya (subsequently renamed Bourg el Arab el Gedida)	50 kms. west of Alexandria off the North Coast Highway

142. These are now considered the "first generation" of new towns. These were planned to be geographically and economically independent of major cities, each with their own industrial base and large target populations of between 250,000 to 500,000.

143. The legislative and institutional framework for the new towns was formalized with the promulgation of the New Communities Law (no. 59 of 1979). This created the New Urban Communities Authority (NUCA) within the Ministry of Housing (ex-Reconstruction) and gave it the right to declare special development zones on State-owned desert lands (upon agreement with the Armed Forces and the Department of Antiquities). Furthermore, the law gave NUCA the right to develop and sell lands within the special zones and to retain these revenues to finance further development. Such a right over lands was unique, something that neither Governorates nor ministries could enjoy. Law 59/1979 also stipulated that each new town would be managed by a town agency under NUCA, but that once developed the new towns were to revert to standard municipal local administration under the relevant governorate. This arrangement was evoked for the first time in April 2008 when, by Presidential Decree, four existing new towns (New Cairo, Badr, 15th of May, and El Shorouk) were incorporated in a newly created governorate which also covers the formerly southern and eastern parts of Cairo Governorate, called Helwan Governorate. Also, a second new governorate was created called Sixth of October Governorate which incorporates the new towns of Sixth of October and Sheikh Zayed as well as sections of what were formerly Giza Governorate.

144. By the mid 1980s the concept of satellite settlements was launched, and a “second generation” of nine of new settlements was planned in the desert around Greater Cairo, initially named as numbers, thus "Tagamaa (settlement) Three", "Tagamaa Five", etc.. In parallel, a “third generation” of new towns were established in the near desert as sister towns or twins to provincial cities. Examples include New Assiut, New Thebes, New Minya, New Damietta, etc. At present there are a total of 20 new towns which are functioning or under construction and another 24+ new cities and communities are on the drawing boards.

145. In the early 1990s there was a fundamental shift in the concept of new towns and the associated land management policy. Up until this time new towns were mainly developed to attract the working classes through the construction of State subsidized low-cost housing blocks and individual investors through the allocation of serviced plots. With the change of ministers and increasing criticism of the quality and aesthetic of social housing, a much more "capitalist" mode of development was applied. First, the boundaries of existing new towns and settlements were rearranged and dramatically extended, particularly in those cities around Cairo which were considered to have development potential. Huge tracts of land were subdivided and sold at near market prices both to individuals and to developers. Three "second generation" satellite settlements were amalgamated and boundaries extended to create New Cairo in the desert east of the metropolis and has a target population of two million. Also, huge new settlements of Sheikh Zayed and El Shorouk (both with target populations of 500,000 inhabitants) were created. Massive amounts of land in these extensions and new areas were sold throughout the 1990s and more is being currently being released. This has brought welcome revenues to the Ministry of Housing and to the State Treasury. Also, this new policy signaled a fundamental shift; the new settlements around Cairo have become the preferred location for the new middle classes and the rich through the creation of gated communities and up-market subdivisions.

146. It must be stressed, however, that the ambitious new town plans have been underscored by huge allocations from annual State budgets. Although public investment figures for the new towns are hard to come by, MHUUD infrastructure investments in the new towns, as a percentage of the ministry's total investments in the whole country, was 9.6% in 1982-1987 and rose steadily to 22.2% in the 1997-2002 period.[24] Other figures suggest even higher allocations to new towns.[25] In addition, the MHUUD devoted over half of its subsidized public housing program to projects in the new towns.

4.3 Meeting the Population Targets

147. How well have the new towns succeeded in meeting their population targets and the objective of diverting Egypt's growing population away from the Nile Valley and creating new growth centers for modern development? Table 4.1 presents the growth of population of the 20 new towns which are covered by the Census of Egypt over the 1986-2006 period.

148. As Table 4.1 reveals, in 2006, after 30 years of new town policies, the total population of all new towns in Egypt had not reached 800,000 inhabitants.[26] This total

[24] World Bank, Arab Republic of Egypt: Urban Sector Update, 2007, page 61.

[25] In a 1992 study commissioned by ESCWA, it was found that "new town schemes would absorb 40 percent of the total budget available for urban development projects up to the year 2000, while providing shelter for only 10% of the total (planned) population over the same period". (ESCWA Symposium on Low-Cost Housing in the Arab Region, 24-28 October 1992, Sana'a Yemen, "Housing finance in the ESCWA Region: Institutions and Procedures", June 1992, page 6.)

[26] These figures all come from the Census of Egypt, which is a de facto census which counts actual presence at the time of the Census (e.g. November 2006). Many consider this a gross under representation

represented less than 2.5% of the urban population of Egypt, or just over one percent of the nation's total population. And although there was an acceleration of population absorption in the 1996-2006 period into new towns (representing an increase of 560,000 persons), this increase only accounted for 4.3% of the national population increase over the same period. The other 95+% of the increase, a staggering 12.5 million persons, occurred elsewhere, almost exclusively in the already crowded towns and villages of the Nile Valley.

149. What went wrong with the new towns policy? Why have the huge private as well as public investments in the new towns not attracted anywhere near the expected populations?

150. Over the last twenty five years there have been numerous criticisms of new towns from various quarters. Most common are that the new towns are too expensive for average citizens. This is attributed to the high cost of housing units, the poorly developed

Figure 12 New Towns and other desert development around Greater Cairo

of the population of new towns. NUCA has its own figures of population, usually based on the numbers of dwelling units (derived from building permits) or the number of electrical connections. This wide inconsistency in reported population figures is explained in the discussion of the population of Sixth of October presented below.

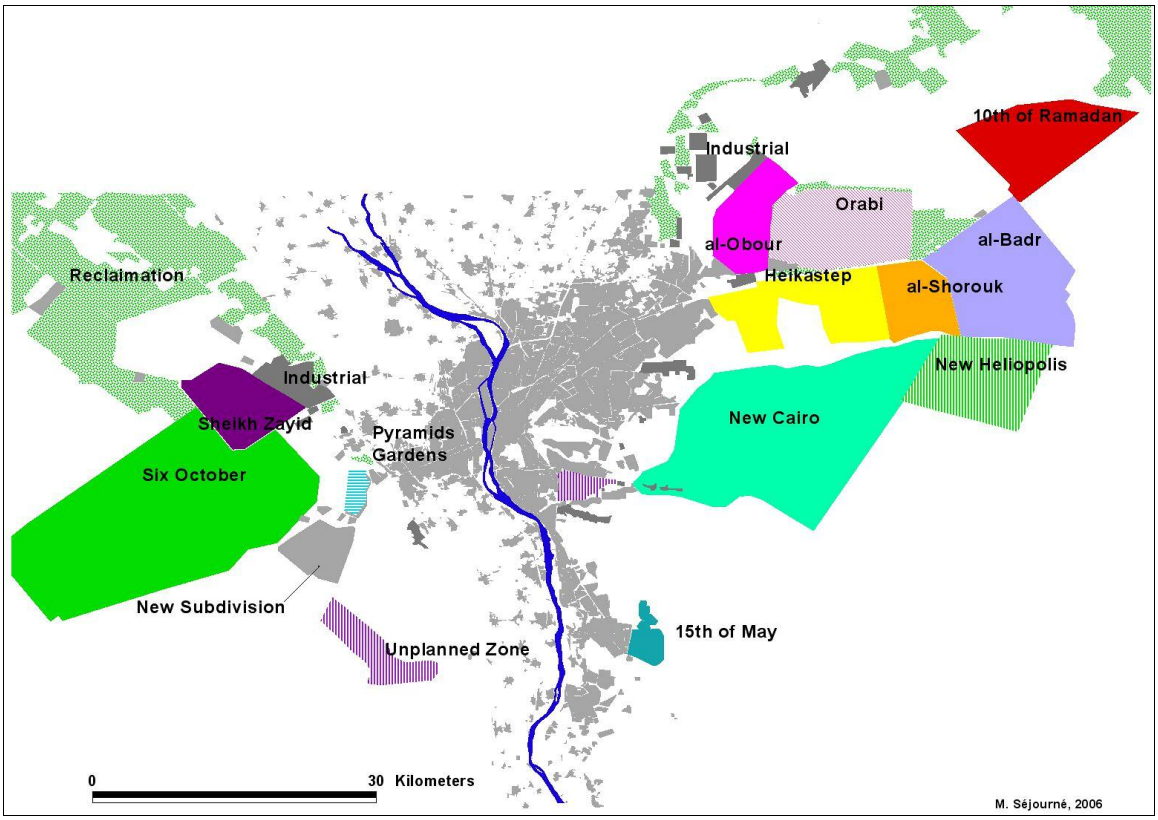

10th of Ramadan
Industrial
Orabi
al-Obour
al-Badr
Reclaimation
Heikastep
al-Shorouk
New Heliopolis
Industrial
Sheikh Zayid
Pyramids
Gardens
New Cairo
Six October
New Subdivision
15th of May
Unplanned Zone
0
30 Kilometers
M. Séjourné, 2006

Table 4. 1: New Towns in Egypt and their Populations in 1986, 1996, and 2006

	NEW TOWN	Location	Census Area	1986	1996	2006	Increase 1986-96	Increase 1996-06	% Increase 96-06 (p.a.)
1	Six October	Greater Cairo	2 qisms	528	35354	157135	34826	121781	16.09
2	Shaykh Zayed	Greater Cairo	qism			29,553	0	29553	
3	Al-'Ubûr	Greater Cairo	madina		997	43802	997	42805	45.98
4	15 Mâyû	Greater Cairo	qism	24106	65560	90324	41454	24764	3.26
5	Shorouk	Greater Cairo	qism			20983	0	20983	
6	10 Ramadân	Greater Cairo	madina	8509	47833	124120	39324	76287	10.00
7	Al Qahira al Gedida	Greater Cairo	3 qisms	0	0	118678	0	118678	
8	Burg al-'Arab al-Gedida	Alexandria	qism		7051	41,351	7051	34300	19.35
9	Dumyât al-Gedida	Delta Coast	qism	70	6520	25944	6450	19424	14.81
10	Al Salhiya al-Gedida	Delta Desert East	madina	464	8140	18968	7676		
11	Madînat al-Sâdât*	Delta Desert West	madina	669	18619	27781	17950	9162	4.08
12	Al-Nubariya al-Gedida	Delta Desert West	qism	0	0	39611	0	39611	
13	Banî Swayf al-Gedida	Upper Egypt	madina	0	208	17638	208	17430	55.90
14	Al-Minyâ al-Gedida	Upper Egypt	madina	0	68	4570	68	4502	52.31
15	Assiut al-Gedida	Upper Egypt	madina	0	0	1761	0	1761	
16	Sohag al-Gedida	Upper Egypt	madina	0	0	57	0	57	
17	Akhmim al-Gedida	Upper Egypt	madina	0	0	0	0	0	
18	Tiba (Luxor)	Upper Egypt	madina	0	0	1000	0	0	
19	Aswan al-Gedida	Upper Egypt t	madina	0	0	0	0	0	
20	Madina Tushka Gedida	Upper Egypt	madina	0	0	2655	0	2655	
	TOTAL NEW TOWNS			**34346**	**190350**	**765931**	**156004**	**563753**	14.94
	All Egypt			48342000	59465000	72493000	11123000	13028000	2.00
	All Urban Egypt			21216000	25286000	31235000	4070000	5949000	2.14
	New Towns as % of all Egypt			0.07%	0.32%	1.06%	1.40%	4.33%	
	New Towns as % of Urban Egypt			0.16%	0.75%	2.45%	3.83%	9.48%	

Note: Tiba town population cannot be separated from Tiba markaz, and has been assigned 1000 inhabitants for 2006.
* 2006 population of Medinah al-Sadat estimated from "qism shortat al Sadat" using 1996 population ratio.

151. Shopping sector and resulting high food prices, and, especially, the need for adequate, affordable, and efficient public transportation systems. Also, the level of services (schools, health services, and entertainment facilities) is considered less than adequate.

152. For most commentators the answer to these criticisms is, simply, that the government must provide more housing, cheaper and improved transport, and better services and public facilities. However, the concept of the new towns itself has rarely been questioned. Solutions to the problems are typically simply more State investments, more private sector and public private partnership applications, better coordination, and "integrated" approaches.

153. A deeper analysis of the new towns will show that there are fundamental problems which have never been recognized and which bring into doubt that idea that the new towns will ever generate the huge population shifts for which they were intended. This revolves around three main axes:

1. In the GOE's attempt to create a modern society in the new towns, high urban planning standards have been imposed which precluded the kinds of housing typically generated in existing cities and have proscribed the kinds of informal businesses which generate most employment in urban Egypt and which poorer urban Egyptians rely on to cope.

2. Distances to new towns from existing agglomerations are enormous and most new towns are not connected from existing urban fabrics through functioning mass transit systems.

3. Land distribution policies within the new towns have been wholesale and mechanistic, as if location doesn't count. And there are huge distances <u>within new towns</u>, and there appears to be no sense of logical horizontal expansion from mature cores. In addition there is little attempt at capturing the un-earned increment due to land value increases. There also has been poor build-out of lands allocated to the private sector, particularly plots in subdivisions allocated to individuals.

154. In effect, the new towns have been created by and burdened with spatial supply-driven policies and wholesale land distribution attitudes which, in spite of the best of intentions, simply don't begin to fit with or stimulate the urban processes and markets that have dominated the dynamics of urbanization in Egypt and which to continue to replicate them in existing agglomerations.

155. Although some of the new towns, especially those around Greater Cairo, are attracting large amounts of private capital, but, as revealed in the discussion of Sixth of October below, such capital has mostly gone into speculative housing and commercial investments which are mostly vacant, idle, or stalled. This in turn reflects the immaturity

of capital investment markets in Egypt and the instinct of both corporations and individuals to invest in land and real estate, where eventual returns through resale will (hopefully) eclipse those in industry, equity markets, or savings bonds.

4.4 Which New Towns are Relatively More Successful and Why?

156. In this section analysis is focused on comparisons between new towns, to identify which towns are relatively more successful than others in attracting inhabitants and investments, and to understand why.

The new towns around Greater Cairo have enjoyed relative success.

157. These eight new towns together had 601,000 inhabitants in 2006, representing over 78% of the national total new town population. The four largest new towns in the country – Sixth of October, New Cairo, Tenth of Ramadan, and Fifteen May – are all located within the Greater Cairo Region, and have been experiencing relative success due to the following four reasons:

(a) Building on the economic and demographic weight of Greater Cairo.

Clearly, the economic and demographic weight of the capital region has made these towns enjoy relative success in attracting new inhabitants, at least compared to new towns in other parts of Egypt. It is these new towns around Cairo which have enjoyed remarkable success in attracting both family capital investments in real estate as well as private corporate investment, both in real estate and in industry. The scale of this investment, which is on going, completely dwarfs investment in the other new towns. (The fact that most of this investment remains incomplete, under-utilized, or simply vacant is disturbing, but it is another issue which is discussed in Sections 4.6 and 4.7 below).

(b) The insertion of large-scale subsidized public housing projects, but with huge burdens on State financial resources

Another reason for the relative success of the new towns in and around Greater Cairo in attracting inhabitants is simply that they have been a main target of the GOE's subsidized public housing program over the last 25 years, and continue to be so. The following figures demonstrate this:

- Of the 237,000 public housing units built by NUCA in new towns over the 1982-2005 period, a full 80.1% were in new towns around Cairo.

- Of the 68,400 public housing units built under the highly-subsidized Mubarak Youth Housing Program (1996-2005), 56,900 units or 83.3% of the total were constructed in new towns around Cairo.

- Under the National Housing Program (NHP), which is currently the main public housing effort which aims to build 500,000 units over the 2005-2011 period, 255,000 units are to be allocated to new towns nationally. Of these units, the new towns around Cairo are scheduled to accommodate 208,000 (81.7% of the total).[27]

(c) Close proximity to large metropolitan areas (in the absence of efficient mass transit)

This can be seen by looking at the eight new towns and satellites around Cairo. Table 4.2 presents the growth of population in these new towns over the 1986-2006 period, compared to GOPP estimates of the population in 2005 (and also the GOPP target populations in 2020).

Fifteen May, which is grafted directly onto the long-existing Helwan suburb, has been doing very well since its inception in the 1980s. Similarly El Obour is relatively successful, mainly because it is quite near massive existing suburbs and is directly straddling the northeast development corridor, the most important in all Greater Cairo. And it could be said that New Cairo to the east is doing much better than Six of October in the west, probably because it is closer to the Cairo core and due to its strategic location along the ring road and close road links to the populated middle-class areas of Heliopolis/Nuzha and Maadi.

Conversely, El Shorouk and especially El Badr, which are far away from metropolitan Greater Cairo, have been the slowest growing. Similarly, Tenth of Ramadan, although the oldest new town in Egypt with a significant head start over the others, remains rather stunted due to its remoteness from Greater Cairo (at almost 70 kms from central Cairo).

(d) Land disposal to the corporate private sector

Of all the new towns in and around Greater Cairo, the population of Sheikh Zayed new town had a 2006 population which reached closest to GOPP's 2005 estimate (at 61.6%). Although Sheikh Zayed is in a relatively isolated area west of Cairo near Sixth of October, it seems to have enjoyed success because it is newer and has a high portion of its land allocated to private developers who are building attractive housing projects and gated communities for middle-to-high income groups and the resulting "prestige" factor. Sheikh Zayed has had very little land subdivided for individual house construction. Another factor in its success has to do with its proximity to a number of new real estate schemes, including the Smart Village and commercial strip development at the beginning of the Alexandria Desert Highway and the numerous up-scale villa developments which are springing up further along this highway.

[27] It should be noted that no NHP units are to be built in New Cairo, the largest of metropolitan Cairo's new towns.

New Damietta appears to be the most successful new town outside the Greater Cairo Region due to economic location factors

158. Although the 2006 population of New Damietta was only 26,000 inhabitants, it is growing rapidly and is attracting very significant private industrial and real estate investments. This success may also be attributed to proximity – in this case proximity to a densely populated rural hinterland (New Damietta is the only new town not located on a desert site) and also to old Damietta and the new Damietta container port. In fact, New Damietta could be considered a classic case of a success due to economic location attributes. Investors are locating in New Damietta and their businesses are thriving because of certain attributions/the proximity to (a) an efficient port, (b) good warehousing and storage facilities, (c) a large agricultural hinterland to provide backward linkages for agro-processing industries, (d) a large pool of both skilled and semi-skilled labor in old Damietta and (e) Damietta's well-known entrepreneurial culture.[28]

4.5 Which New Towns Have Been Less Successful and Why?

159. Although eight new towns have been established in various desert locations in Upper Egypt, their combined populations in 2006 did not exceed 28,000 inhabitants (only 0.13% of the current population of Upper Egypt). Even those established 15-20 years ago are still practically dormant. For example, New Beni Souef currently has only 18,000 inhabitants, New Minya 4,600, and New Assiut 1,800. The poor record of these towns can be attributed to:

(a) Their poor locations (typically 20-30 kms from their old city counterparts and in remote desert sites).

(b) The high incidences of poverty in Upper Egyptian governorates and the inaffordability of housing on offer in these new towns.

(c) Unlike in Greater Cairo and the Delta, the regional economy of Upper Egypt is weak and any private or corporate capital is unlikely to locate in these areas, in spite of significant GOE incentives. There are few economic location attributes and few forward or backward industrial linkages for these towns to enjoy.

160. Being far from large metropolitan areas and economic drivers also seems to be a factor in the lack of success of some other new towns outside the Greater Cairo Region. For example, Sadat City – which was situated in an isolated desert location 110 km from Cairo, 130 km from Alexandria, and 55 km from the nearest Delta towns and villages – has had a very disappointing record at attracting inhabitants and private real estate capital, in spite of the numerous large factories that have located there.[29] And the same

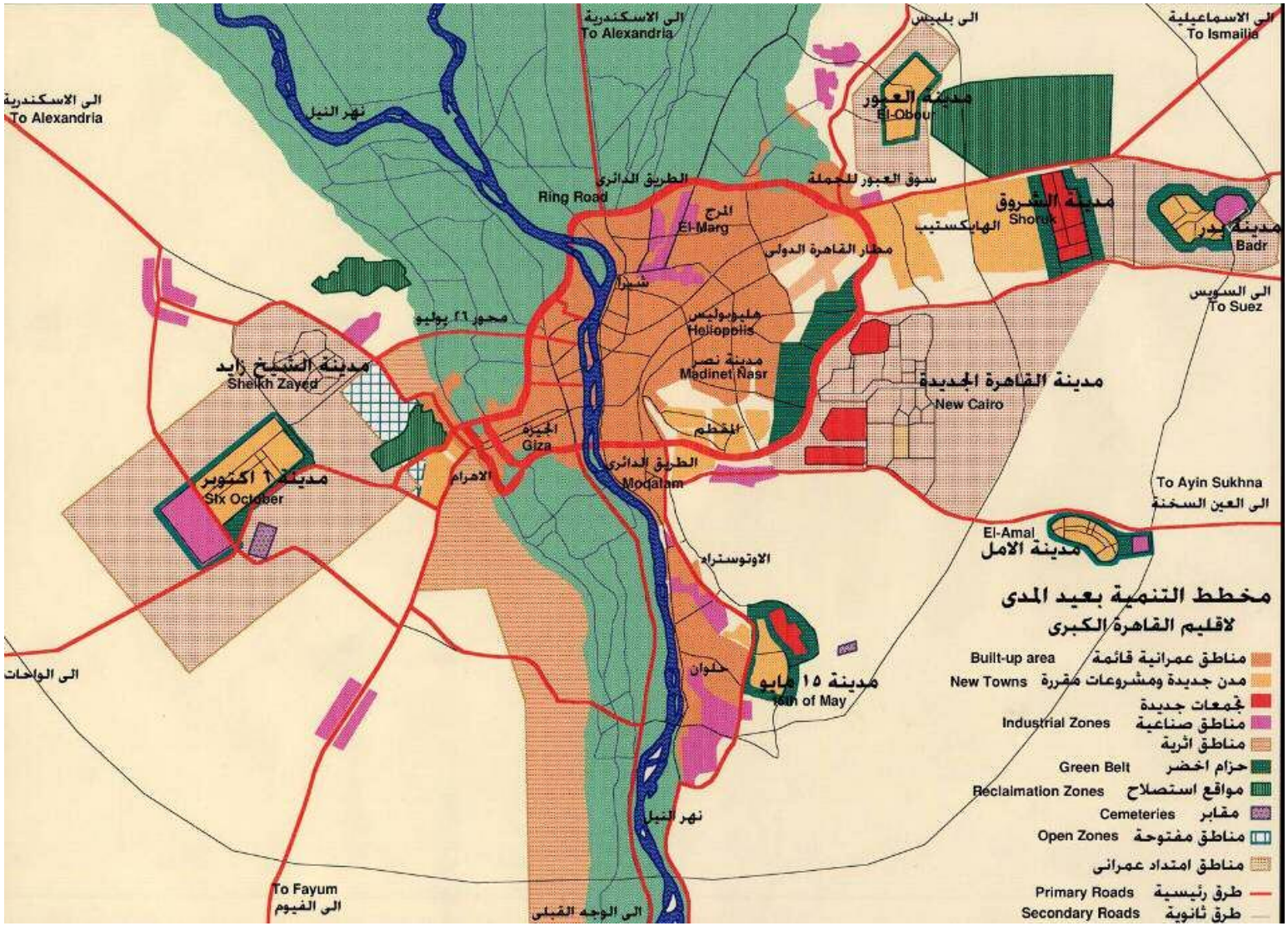
[28] For more information on New Damietta, see http://www.urban-comm.gov.eg/damietta.asp

[29] It is interesting to note that most of the labor force in Sadat City factories resides in the closest towns and villages of Menufia Governorate (a distance of 50 to 70 kms.) rather than the new town itself..

Table 4. 2: Populations of New Towns around Greater Cairo

New Town	1986	1996	2006	GOPP 2005 estimate	Variation between estimated pop. (2005) and real pop (2006)	GOPP 2020	% Census 2006 of GOPP est. 2005	JICA est. 2027 (Alt 3, HIGH)	JICA est. 2027 (Alt 2, LOW)
15 Mâyû	24106	65560	90324	180000	-89676	250000	50.2%		
Badr	-	248	17172	60000	-42828	430000	28.6%		
al-Qahira al-gadida 3	-	-	118678	302000	-183322	2000000	39.3%		
Shorouk	-	-	20983	62000	-41017	500000	33.8%		
Madînat al-'Ubûr	-	997	43802	100000	-56198	600000	43.8%		
Madînat 6 Uktûbar 1	528	35354	157135	500000	-342865	2500000	31.4%		
Shaykh Zayed	-	-	29,553	48,000	-18447	500000	61.6%		
10 Ramadân	8509	47833	124120	500000	-375880	-	24.8%		
total new towns	**33143**	**149992**	**601767**	**1752000**	**-1150233**	**6780000**	**34.3%**	**4200000**	**2700000**
Total GCR	**10994000**	**13231000**	**16292000**	**16200000**				**24000000**	**24000000**
% New towns in GCR	**0.3%**	**1.1%**	**3.7%**	**10.8%**				**17.5%**	**11.3%**

Figure 13 Greater Cairo Long Range Plan Locations of New Towns (source: GOPP, 1997)

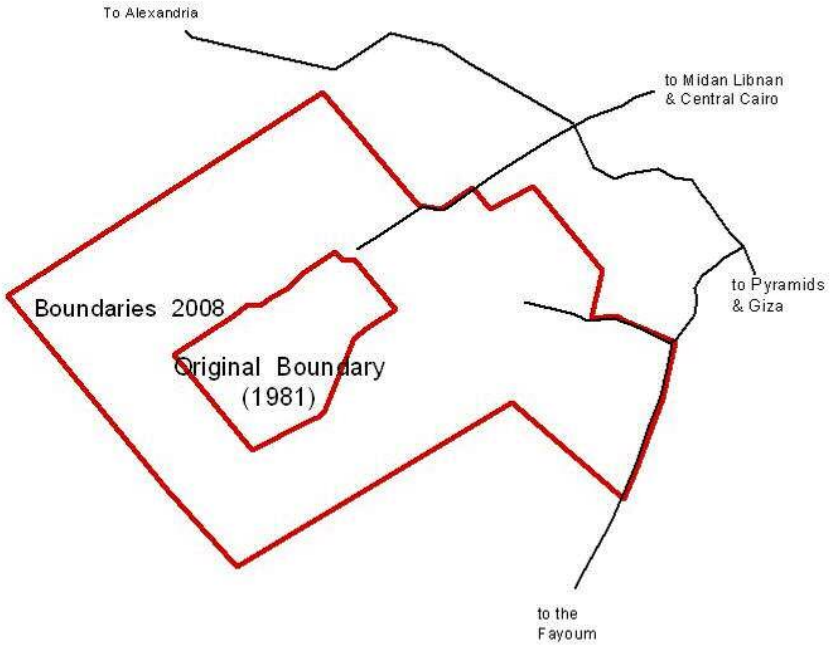


could be said for New Bourg el Arab City, which is some 50 km west of Alexandria on a virgin desert site.[30]

4.6 Case Study - Sixth of October City: Background and History

161. Sixth of October new town was announced in 1981, was planned to have an ultimate population of 500,000, and was the first new town to be designed totally by Egyptian consulting firms. Like other first generation new towns, its original economic base was for an industrial city with a large industrial zone to the west, a mix of public housing and individual housing subdivisions to the east, and a central commercial and office spine to interconnect the city. It is located about 35 km west of central Cairo on a large and mostly flat desert site (the original plan covered a gross area of 3500 hectares, not counting the town's original buffer zone or green belt). Construction began in the 1980s (according to the 1986 Census there were only 528 inhabitants), but build-out and population growth have been disappointing, even though hundreds of public and private sector factories quickly located in the town and there are now said to be between 40,000 and 60,000 jobs associated with these industries, and even though tremendous public investments have been made in the town.

Figure 14 Expansion of Six October Boundaries



162. In the early 1990s Sixth of October began to undergo fundamental changes. Boundaries of the new town were greatly expanded into the surrounding desert, and large blocks of land began to be allocated to private developers as well as more plot allocations

[30] While Bourg el Arab new town had only 41,000 inhabitants in 2006, the largely informal areas of Bourg el Arab Qism and Ameriya Qism (also found west of Alexandria – but almost contiguous to the metropolitan area) together had a population of 537,000 inhabitants in 2006 and registered a population increase of 280,000 over the 1996-2006 period (Source: Census of Egypt).

to individuals in huge subdivisions, with land being sold at near market prices. Attempts were made to attract flagship investments and signature brands, such as amusement parks, private universities, and Media Production City.[31] As in other new towns, these new land sales began to generate significant revenues for NUCA, some of which reverted to the State Treasury, but most of which was used to service newer land areas in new towns throughout Egypt.

163. By 1996 the population had reached 35,000 and by 2006 the Census registered 157,000 inhabitants, making Sixth of October the largest of all new towns in population terms.[32] Even more impressive was the increase in housing units. According to the Census, some 53,000 dwelling units in Sixth of October were recorded in 1996, and this jumped to 126,000 in 2006. However, as shown in Table 4.3, the occupancy of these units remained extremely low. For example, in 2006 on average there were only 1.23 persons per unit. Given that the average family size is 3.7, this implies that two-thirds of dwelling units were uninhabited.[33]

Figure 15 Central Sixth of October, 2005

[31] Media Production City, or "Hollywood East", obtained a large site along the southern entrance to Sixth of October. The land was assigned at no cost to the Ministry of Information, which then created a joint venture with private capital to provide film and television studios and support services. The land value was calculated as the Ministry's (controlling) share in the joint venture.

[32] If Sheikh Zayed New Town is considered part of Sixth of October, the combined 2006 population rises to 187,000 inhabitants.

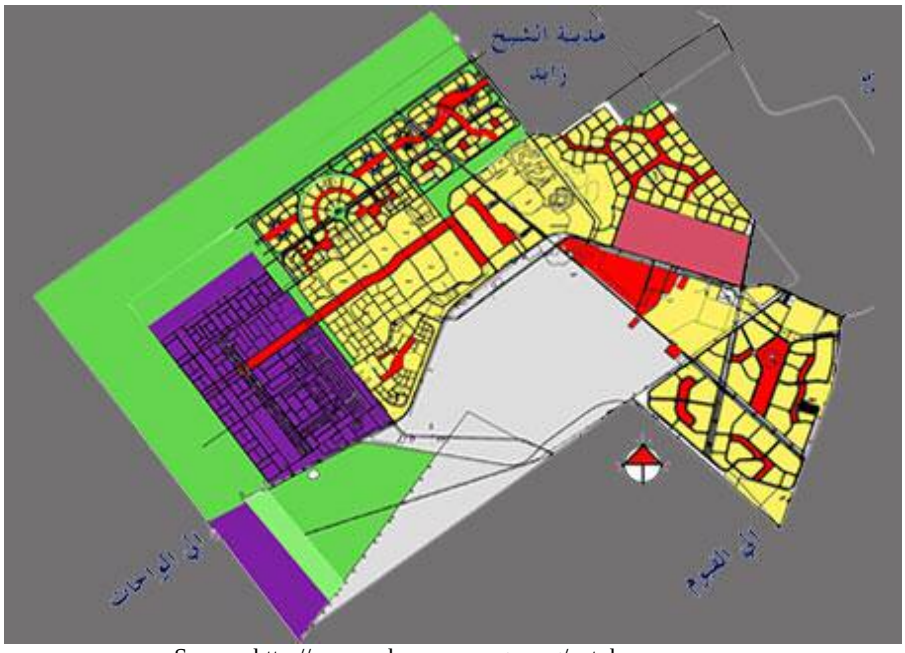
[33] The Census of Buildings counts dwelling units in a way that includes units that may be unfinished, and thus vacancy rates throughout Egypt seem high (averaging 30% of units). Even so, the vacancy rates in Sixth of October are remarkably high. (For comparison, the average occupancy for all of Giza Governorate in 2006 was 2.74 persons per unit.)

Table 4. 3: Population and Dwelling Units 1996 and 2006

	1996			2006		
	Population	No. of Dwelling Units	Persons per Dwelling Unit	Population	No. of Dwelling Units	Persons per Dwelling Unit
Six October First Qism				38,666	51,385	0.75
Six October Second Qism				118,469	75,492	1.57
Total Six October	35,353	53,729	0.66	157135	126,877	1.23
Sheikh Zayid	0	0	0	29,499	30,735	0.96
Giza Governorate	4,784,099	1,527,198	3.13	6,272,571	2,284,658	2.74

Source: Census of Egypt (2006 preliminary results). Note that the numbers of dwelling units in 2006 have been reduced by the number of establishments, to correct for the fact that in the 2006 Census the number of dwelling units included shops and garages.

Figure 16: Master Plan of Six of October



Source: http://www.urban-comm.gov.eg/october_uses.asp

164. This total miss-match between dwelling units versus population underscores an important real estate phenomenon in Sixth of October (and in other new towns around Cairo). For many families with means (not to mention companies), the main purpose for residential construction in Sixth of October is a means of investment rather than for housing as consumption. It is perceived that capital put into bricks and concrete will be

safe, incur no recurrent costs,[34] and will appreciate at rates higher than inflation. Alternative investment opportunities for family capital (the stock market, banks, businesses, and bonds) are either risky or generate only small returns. The intention may not only be speculative investment – the investor may reason that the housing unit could have a use in the future, as housing for sons or daughters, for example, but this tends to be secondary.[35] This investment perspective explains both the past levels of property construction, vacancies, and the continuing rush to purchase land and to build in Sixth of October.

165. In fact, it appears that the desire to invest in Sixth of October, and especially to purchase new land parcels from NUCA, reflects a self-reinforcing speculative element. As long as demand is high, the resale value of land and property will be high, which further encourages investment.[36] Even public housing units are subject to this phenomenon of speculative investments. The results are all too obvious, as is explained in the following section.

4.7 Six of October: Main Causes of Relative Success but Unfulfilled Promise

166. The relative success of Sixth of October relates to a number of factors. These have to do with its (a) location within the capital region where so much of the nation's economic activities take place, (b) favored target for large subsidized public housing programs, (c) large industrial area with both public sector industries and private factories enjoying considerable incentives, and (d) attractiveness for flagship public and private investments and signature brands.

167. Still, given the tremendous scale of investments, both public and private, plus the city's huge State land resource and strategic location within Greater Cairo, why has Six of October stubbornly refused to meet its promise? The following paragraphs summarize the main weaknesses which have led to the present state of affairs, and which are still prevalent.

Wasteful land allocations which remain dormant

168. Thousands and thousands of hectares of land in Six October have been allocated for projects and sold to individuals and investors. In the early years, land prices for

[34] New towns are currently exempt from the Property Tax (*aawayid*), and there are no monthly or annual taxes or fees imposed on built property in the new towns.

[35] The reader may ask why do property owners in Sixth of October not rent out their units rather than leave them empty? First of all, demand for rental housing, especially for the large units typically found in new towns, is very weak and market rents are very low in Sixth of October. Secondly, throughout Egypt renting is viewed by many owners as problematic, especially in ensuring that the renter will vacate the unit at the end of the lease. For a discussion of the rental markets and vacancies in Greater Cairo, see the Housing Demand Study (Ministry of Investment, USAID, TAPR2, May 2007).

[36] A citizen can apply for and purchase a plot of land under the quraa system, and turn around and resell it almost immediately, usually for a handsome profit. Property sections of newspapers are full of land and property sales announcement in the new towns.

private entities were purely nominal, although recently land prices have been set to recover (at least partially) infrastructure costs or are sold through closed-envelope auctions. Terms of payment are very convenient, usually 10% down and the rest paid in equal installments over ten years, without interest. Although sales contracts stipulate that a project or venture must be built within a set period (usually three years) or the site is repossessed, this condition is only very rarely enforced. In fact, very few if any land allocations, whether to corporations or individuals, have been taken back through the city's history. The results are very evident, and Sixth of October, like all new towns, is characterized by empty lots, stalled construction, huge empty concessions, and skeletal subdivisions.[37] (See Table 4.3 for examples.) Not only does this represent a huge economic cost (in underutilized prime land and associated infrastructure), it is hardly the image that Sixth of October is trying to project to visitors and potential investors.

169. In parallel, large parcels in Sixth of October have been (and continue to be) allocated at no cost for government and public sector uses. Most of these lands have been used for the construction of public housing estates. Once built, these neighborhoods at least give the appearance of being fully developed, but vacancies are very high. Other areas have been allocated to public enterprises, most notably the 232 hectares allocated at no cost to Media Production City, a company controlled by the Ministry of Information, and large parcels to State industries in the industrial zone.

No logical sequencing of development

170. Lands in the original core of Sixth of October (Districts 1 through 12, the central spine, and the industrial area) were all rapidly allocated in the 1980s, practically once-off. There was no attempt to stage the development. Build-out proved very slow and patchy,[38] but instead of trying to densify and restructure the core areas, in the early 1990s NUCA officials began to design vast new areas (in particular the "tourist" zone or *hay el mutamaez* directly east of the core city with an area of 1400 hectares) which were parceled for individual plots and for tourism projects (mostly residential compounds). Lands in these areas were allocated in a wholesale fashion, again without any staging, and the result today is more patchy development with the odd successful project intermixed with massive empty spaces and stalled subdivisions. Such leap-frogging design of additional enormous city sectors and their wholesale land allocation has continued into the 2000s.[39]

[37] The largest single land concession in Sixth of October to a private entrepreneur was Dreamland, a huge 893 hectare parcel directly on the southern entrance to the city. Fifteen years after assignment Dreamland, although it boasts an amusement park, a golf course, a five star hotel, and up-scale residential compounds, still has over two thirds of the site undeveloped.

[38] For example, the central commercial spine of the original city core remains, after 20 years since parcels were allocated, only 25% developed (and many of these structures are vacant).

[39] In the late 1990s a 1.1 km strip was added to the city core on the north (on what was originally the city's green belt / buffer zone). This area of 1170 hectares has hardly developed at all, with the exception of a Mubarak Youth housing estate and one private housing compound. Even so, the city has designed another further huge "northern extension" on over 1500 hectares and the land there has almost all been allocated, although not a single project has started. And city planners have designed and allocated most land in yet another extension to the east, a colossal area of 2100 hectares, which currently has three scattered projects under construction on less than 2% of the land.

171. Any city, even a new town or suburban sub-center, wants to develop progressively out from its core. City managers know that as development occurs, immediate fringe sites gain in value and, if well planned, a rolling program of radiating land marketing will both maximize financial returns and promote dense and logical development.[40] Such a logic has, unfortunately, been totally lacking in strategies to develop Sixth of October.

Extremely poor take-up on individual plot subdivisions

172. Large blocks of Sixth of October have been designed as residential subdivisions with individual plots in the 300 to 500 m2 range for multi-story structures and ample land for open spaces and public services. These were and continue to be distributed under an application system where plots are allocated by lots (*quuraa*) if demand exceeds supply. Of the different types of residential land development, these subdivisions have proven to be the most disappointing, at least in build-out and occupancy terms. Three prime examples are given in Table 4.3.

173. As can be seen, even the earlier subdivisions, which date back more than 20 years, are still sparsely settled, and the more recent ones are largely an assembly of empty lots. Such stalled developments are extremely prejudicial to Sixth of October's success. They are costly (in terms of sunk investment costs but under utilized infrastructure), they project a negative image, and they create gaping "holes" in the city's overall urban fabric. Such past developments are bad enough (representing some 55% percent of the residential areas in the original city core plus tourist zone extension), but it is understood that similar individual subdivisions will form a large part of the newer extensions to the city.

High standards and prohibited uses

174. As in all new towns, in Sixth of October allowed plot exploitation and building standards are extremely strict, which, combined with the large unit sizes, makes development of residential units expensive and difficult to market. Virtually all privately-built housing units available on the market are completely unaffordable to the large majority of Cairo's households, even if finance were to be available. (Public housing units are commonly resold in Sixth of October, but even these smaller units fetch prices that exclude the majority.)

175. Furthermore, in Sixth of October it is prohibited in most buildings to open retail shops, services, or offices. Workshops and repair shops are unknown, and even kiosks are discouraged. These prohibited uses are precisely those which generate so much employment and so many business opportunities in Cairo proper. In effect, the vast

[40] Such staging strategy was used by the Belgian entrepreneur Baron Empain to create Heliopolis, a very successful streetcar suburb of Cairo carved out of the desert at the beginning of the 20th Century.

micro and small informal business sector, which generates jobs for over 60% of urban Egypt, is excluded from Sixth of October.

Poor accessibility and lacking public transport

176. Poor public transport services have for years been identified as one of the obstacles to the development of Sixth of October. At some 35 kilometers from central Cairo, rapid and affordable public transport is needed for the city to become fully linked to the metropolitan area. Although the 26 July Street Extension (*el mahwar*) was built in 1999 specifically to improve the Sixth of October's road links to Cairo, and even though private minibuses now serve the city on a regular basis, inter-city public transit remains a problem. (Proposals for high-volume transit systems for Sixth of October are discussed in Section 6 below.)

Table 4. 4: Examples of Individual Subdivisions

Districts (*ahyaa*) Two, Three, and Four Total area: 580 hectares Started: 1984 Estimated status of plots in 2005: 20% built on and completed (but occupancy low) 45% under construction or stalled 35% remain empty	

District (*hay*) One Total area: 182 hectares Started: 1990 (?) <u>Estimated status of plots in 2005:</u> 8% built on and completed (but occupancy practically nil) 32% under construction or stalled 60% remain empty	
Tourist Area (*el hay el siyahi*) Total area: 576 hectares Started: 1995 (?) <u>Estimated status of plots in 2005:</u> 2% built on and completed (but occupancy practically nil) 10% of plots under construction. 88% remain empty	

177. In addition, better means of public transport within and around Sixth of October is needed. Even if transport services to the city are vastly improved, it remains problematic how passengers are to reach their ultimate destinations. The problem is one of sheer distance, as the following illustrate:

- The distance between the present boundaries of Sixth of October measure 19.5 km in an east-west direction and 23.6 km in a north-south direction. (For comparison, the distance from Tahrir Square in the center of Cairo to Cairo Airport is less than 18 km)

- The commercial spine of the core city is itself 7 kilometers in length. (For comparison, this is greater than the distance across central Cairo from Cairo University to Al Azhar Park)

- From the eastern part of the tourist area to the beginning of the commercial spine is 4.5 kilometers in length.

- From recent public housing to the commercial spine varies from 2.1 to 5.1 km in distance.

- From the furthest factory location in the industrial area to the nearest point on the central spine is 5.5 km.

178. If these trajectories within Sixth of October traversed well-populated areas, then they could support a ridership which would make frequent private shuttle bus services profitable. But, unfortunately, they do not, nor can they be expected to in the medium or even long terms.

179. Such huge distances within Sixth of October would not be problematic if everyone could rely on the private car. Certainly those who live in the residential compounds will own vehicles, but the same cannot be assumed for those of more modest incomes. Only 14% of households in Greater Cairo own any kind of vehicle, and thus, for the majority, car ownership will remain a dream for decades.

A single, and shrinking, revenue base (land)

180. Revenues generated in Sixth of October come almost exclusively from land sales. The continuous expansion of the city's boundaries and subdivision and sale of massive new areas have, especially in the 1993-2007 period, generated very significant revenues (much of which continues to trickle in, since land sales are allowed in installment payments). But this land revenue base is nearly exhausted. According to McKinsey, in early 2007 only 6000 hectares of land in October Six remained unallocated, and most of this was already planned and subdivided.

181. It should be pointed out that there is virtually no financial independence of the Sixth of October Agency (the body which functions as the municipality of Sixth of October). Virtually all land sales revenues revert directly to NUCA and MHUUD, and budgeting of investments in Sixth of October is also a totally centralized decision. (The Sixth of October Agency operates on annual budget allocations from NUCA). Thus even were better land management and a "developer" philosophy to prevail within Sixth of October, there is no institutional framework which would allow this to work.[41]

4.8 Current Strategies for Revitalizing Six of October

[41] As far as is known there are not even periodic financial statements which treat Sixth of October as an independent, going concern. That is, investments and recurring costs specific to Sixth of October are not summarized by sector, nor are revenues. Instead, expenditures and income relating to Sixth of October are subsumed under various line entries of NUCA and MHUUD accounting.

182. At the beginning of 2007 the MHUUD commissioned McKinsey & Company management consultants to prepare a master strategy for revitalizing Sixth of October (and the adjacent smaller new town of Sheikh Zayed).[42] The fact that such a study was necessary at first seems puzzling, given that Sixth of October is a totally planned city and all land development is strictly controlled. But it is an indication that authorities have recognized that past management has been weak and that the city is not fulfilling its potential.

183. McKinsey advances a vision of 6th October and Sheikh Zayed as a "renaissance city" which will attract three million inhabitants (and some 500,000 to 600,000 jobs) by 2020, create a harmonious and prosperous community, and it will become a leading economic engine in Egypt. To achieve this it is necessary to establish key economic growth industries and services, balanced residential zones and mixed-use commercial and public services areas, and also improved infrastructure, especially public transport. Four mega-flagship projects and associated software are identified to stimulate the city's momentum:

184. Much weight is put on attracting major companies and services relocating from other parts of Greater Cairo (aiming to generate 155,000 well-paying jobs) as well as those entering the off-shore services sector (generating another 25,000 jobs). To support this it will be necessary to offer quality office space at competitive prices, and to ensure there is a well trained local workforce. Banks, finance and accounting firms, telecom companies, and professional service firms are prime targets. Also considered important additions would be a world-class exhibition and commercial center, hotels and serviced apartments, a complete university town and other education services, as well as tertiary health care services and centers.

185. Where would these new elements, so essential for the city's growth, be located? (After all, Sixth of October already has a CBD/Central Spine, and most of the land in the city is already sold, allocated, or otherwise locked out.) The Consultants propose a site for the new CBD at the southeast corner of the Northern Extension, close to Sheikh Zayed, and also rely on the Northern Extension (most of which is reported to still be unallocated) for most of the other new elements which make up their city development strategy.

186. How can the year 2020 target population of three million inhabitants (2.5 million for Sixth of October and 0.5 million for Sheikh Zayed) be achieved? First of all, the McKinsey study assumes that the current population has already reached at least 100,000 to 122,000 households, which at 3.7 persons per household implies between 370,000 and 451,000 inhabitants, or between twice to almost three times the population reported by the Census of Egypt in 2006 for Sixth of October and Sheikh Zayed.

187. Secondly, the study assumes that hundreds of thousands of job positions will be created in the city and that most of these will be filled by new residents moving to Sixth

[42] The McKinsey & Company analysis and proposals are taken from a powerpoint presentation dated 20 May which was provided by GOPP/MHUUD.

of October. Thirdly, the study sees attracting mostly a "middle class" with monthly incomes in the LE 1200 to LE 6300 range. (A small upper class as well as a sizable working class are also to be attracted).

188. How will the revitalization of Sixth of October over the next 15 years be managed? Two options are proposed by the Consultants: In the first opinion, government would continue to undertake planning and set development guidelines and also develop infrastructure and anchor buildings (such as the convention center). Private investors would develop sites and construct housing and commercial/office premises. In the second option, government would restrict itself to planning and development guidelines and a new public-private consortium would develop infrastructure, anchor buildings, and also commercial buildings and office space. Private investors would create housing and operate premises. Under both options the Consultants see that city management (termed "enabling software") must be dramatically improved, but that even under the best of scenarios, city revenues will not cover expenditures and that city administration will need to be subsidized.

189. The Consultants devote considerable attention to public transport solutions for Sixth of October, considering that an integrated transportation system (combining intercity mass transit with a local bus network in a hub and spoke system) is an essential element in any city revitalization and should itself be considered one of the city's flagship projects. Commuter rail is proposed for intercity transport, and two alternate routes are sketched out to link Sixth of October to the western part of the Greater Cairo core. If the population and workforce goals for 2020 are met, a high volume of passengers using this commuter rail can be expected. The commuter rail line's infrastructure would be a government investment and maintenance responsibility, but private sector entities would invest in and operate the rolling stock. The Consultants roughly calculate that the fare break-even point would be LE 3.5 per passenger (at current prices), and that, given the un-affordability of this fare for the average commuter, fares may need to be subsidized. The Consultants also call for a well-managed local (intra-city) bus system, and suggest that it be operated by a specialized international company with oversight be the City Authority.

4.9 McKinsey's Proposals for Sixth of October

190. McKinsey's development proposals for revitalizing Sixth of October present a package of public and private investments which, if achieved over the next 15 years, will go a long way towards improving the city's profile and economic base. The main pillars upon which the city's "renaissance" depends -- a new, vibrant CBD with convention center, high value added manufacturing, safe and convenient public transport, affordable mixed-use communities, etc. – would be very welcome. And many of the propositions and mechanisms advanced by McKinsey to achieve this are logical and sound. These can be listed in summary form:

1. Much better management of the city, with a progressive shift from NUCA being in control towards an interim Project Office with independence of action to spur key flagship development and finally with most powers residing in a much improved City Administration.

2. Improve the affordability of housing on offer by introducing apartment size regulations, allowing mixed use in residential areas (to create opportunities for cross-subsidies), and re-organize public housing raffle pools (*quraa*) to give priority to those employed within Sixth of October.

3. Reduce real estate speculation by applying property taxes to increase holding costs (for all properties) and recapture the subsidy element for resold public housing units

4. Create a real estate index system which will increase transparency in property markets in Sixth of October

5. Create rapid and high-ridership public transport to link Sixth of October to Greater Cairo, including the profitable development of high value land around its stations and terminus within Sixth of October.

191. However, making the McKinsey proposals work will require significant political will to allow a ground-shift in the way the city's development is guided and, in particular, the ways land is managed and disposed of. This reform is crucial, and without it not only will the McKinsey vision remain unrealized, but wasteful and unproductive land disposal, so much the cause of Sixth of October's present problems, will continue unabated.

4.10 Continuing Weaknesses of Six of October and Policy Implications

192. In the following paragraphs a number of actions and strategies are suggested which will tackle some of the intractable problems facing Sixth of October, over and above recommendations made by the McKinsey consultants. These suggestions all presume that the requisite political will is in place.

(1) Combat the speculative intent in land disposal

193. It could be said that the McKinsey proposals concerning land management do not go far enough. Any city land disposal mechanisms must combat the speculative intent which drives so much of current land purchase and property investment. This is not a problem unique to Sixth of October – it bedevils all new town development and in fact skews the whole real estate market in Egypt. NUCA is well aware of the challenge, and it has begun to impose tough conditions on the disposal of the remaining lands in the Sixth of October's industrial park (by requiring bank guarantees, etc.). However, it is difficult to strike a balance between weeding out speculative intent and at the same

encouraging serious investors. Certainly there must be some mechanisms which will, at least, dampen the speculative intent. The following are some possible approaches:

First of all, end the distribution of building lots in subdivisions by raffling. This form of land disposal to individuals, as described in Section 5 above, has had such a damaging effect on the city's fabric and growth that its continuation, without incentives and penalties in place to ensure rapid build-out and occupancy, will be disastrous. Instead, more efforts should be put in attracting small and medium sized private developers which would put up apartment blocks for rent or sale. These developers should have every incentive to quickly generate revenues to cover their bank loans.

End installment payments for land purchase. This policy, more than any other, attracts those who have no intent to invest seriously. These persons simply hope to get in "on the ground floor" of a land release scheme, aiming to capture a windfall profit through resell with the smallest of equity contributions (normally 10% to 30% of the land price). Instead, full payment for the land should be required, and perhaps in addition a surety payment should be mandated, to be refunded upon completion of the project or at least the first phase of that project.

Consider contracting out land sales. The current system of land release is quite opaque, whether for individuals or for developers. It seems that insider knowledge of upcoming release counts for a lot. And land release is almost always wholesale, involving hundreds of parcels and hundreds of feddans. Instead, land parcels should be vigorously marketed through all means, and lots should be released in small batches, with sales taking place on site if possible. If NUCA cannot reform itself to act as a true land developer, then consideration should be given to contracting out land marketing and sales to private companies, with their profits coming not only from a percentage of the sale price, but also from incentives for finding serious investors.

Consider land leasing instead of purchase. A system of conditional land sales, whereby the investor operates under a leasehold arrangement for a number of years or until a project (or a project phase) is completed, with eventual with option to buy, should be considered as an alternative to the present installment purchase contracts. In this way the legal force of ownership (and the implied right of repossession) would be retained by the Government until performance is guaranteed.

(2) Reclaim and recycle previous land allocations and densify the city core

194. Even if more rational and productive land disposal systems can be put in place for the small amounts of land still unallocated in Sixth of October, as suggested above, the huge problems associated with failed and stalled development elsewhere in the city will remain. These problems, described in Section 5 above, are fundamental and if not

redressed, will condemn Sixth of October to a patchy and discontinuous urban fabric devoid of most city life.

195. The first step is to repossess vacant land parcels and resell them under improved land release mechanisms as suggested in (1) above. It is ironic that, although all land allocations stipulate that sales contracts are void if development does not occur within a set period (usually three years), this condition is hardly ever applied. Very simply, such a repossession campaign, staffed with a team of lawyers, is long overdue. And it should be applied to unfinished structures as well as vacant land parcels.

196. The second step is to allow re-planning of certain core areas of the city, especially to rezone lands which were designated as open spaces and boulevard reserves. Much of these lands have no hope, in a harsh desert climate, of ever becoming the verdant strips envisioned by the original planners. They should be rezoned for mixed commercial/residential use and aggressively marketed, with the aim of densifying the core areas of the urban fabric (and, incidentally, remarkably improving the city's financial profile).

(3) Faith in the property tax may be misplaced

197. The McKinsey consultants, as well as several observers of the Egyptian property sector, put considerable faith in the imposition of a reformed property tax system to discourage speculative holding of property and to reduce the high rate of vacancies which plague towns like Sixth of October. However, the draft property tax law, currently being debated in Parliament, is likely to be so watered down with exemptions, special conditions, and low effective rates, that its power to reduce the prevalent speculative intent in new town investments will be very weak. In addition, such a tax on property is only allowed by the Egyptian Constitution to be imposed on property which can generate a return. Thus un-complete buildings and, most damaging, vacant land, will be un-burdened by the property tax and thus remain costless to hold for speculation.

(4) Problems with public transport and subsidies in general

198. Even if the intercity commuter rail system proposed by McKinsey can be realized and the targeted 2020 peak ridership of 38,000 passengers/hour in each direction achieved, it is likely that a significant subsidy will be required. This may be offset somewhat by careful exploitation of lands near stations and the terminus, but the acceptance of a continuous and recurring subsidy needs to be carefully assessed. And this subsidy may be considerably higher than presently calculated, since the expected high volumes of revenue-generating passengers may not actually materialize.

199. Even if the intercity transit solution works, public transport within and around Sixth of October and Sheikh Zayed will remain problematic. As mentioned above in Section 5, the city suffers from very low densities and patchy development. And distances within Sixth of October are truly colossal. Offering convenient, frequent,

affordable, and safe intra-city public transport, as called for by McKinsey, will simply be impossible without large and recurring operating subsidies.

200. In effect, the economic realities of distance challenge any public transport solutions. The issue is further complicated by the subsidy element inherent in nationally-set fuel prices. Were the Government to seriously reduce these subsidies, all public transport to and within Sixth of October will become more expensive by a factor of 2 to 4.

(5) Rethink the balanced community objective

201. The multiple difficulties faced by those of limited income (those with monthly incomes currently below LE 1200, called "working class" in the McKinsey study) to live in Sixth of October and other new towns have been discussed in Section 2 above. These difficulties and the very poor record in attracting even a fraction of this target population to Sixth of October raises questions: Why expect these strata of society to populate the city? Why not concentrate on attracting the car-owning middle and upper classes, who have been moving to Sixth of October and Sheikh Zayed in relatively greater numbers, as a city development strategy?

202. The costs of attracting the working class are very high and require continued subsidies, and there is a very good chance that even these measures will not succeed. On the other hand, the kinds of skilled jobs and high-value businesses expected to be created in Sixth of October under McKinsey's strategy will attract mainly the middle classes. So why not simply go with the city's expected comparative advantages? There is already a huge and largely vacant stock of subsidized public housing in Sixth of October, and more is being built (e.g. the Ibni Beitak program). This stock will be more than sufficient to house the working classes required for existing industry and for low-paying service jobs to be created in the city.

203. Such a strategy shift[43] would free up significant amounts of land currently earmarked for public housing and associated public facilities. And the subsidy issues associated with public transport would become manageable. And to those who say that Sixth of October must absorb its share of the growing population of Greater Cairo, the answer would be that demographic trends show that this is an impossible goal and that even under the best of conditions Sixth of October will never make an appreciable dent in the annual 350,000 additions to Greater Cairo's population.

(6) Position Sixth of October as the anchor for western development of Greater Cairo

204. The development of Sixth of October (and Sheikh Zayed) should not be seen in isolation of its surroundings. Much as the GCR's master planners may deplore it, the fact is that the whole desert west of Cairo is being rapidly subdivided and sold for various

[43] In fact, the MHUUD has already adopted such a strategy shift of New Cairo, located east of Greater Cairo.

urban projects. The list of such projects is long and growing.[44] In a way these other projects can be seen as direct competition to Sixth of October, since they mostly offer high-end villa and garden housing estates, business/commercial/office space, and industrial sites. But none of them can create the concentration of development and urban weight that Sixth of October can. Thus a strategy would be to go with this strength and generate developments in Sixth of October that can offer higher-order services to these other areas.

(7) Finally, avoid wishful thinking and non-transparent planning

205. Sixth of October will not benefit from over-optimistic estimates and projections. These have bedeviled the city's plans in the past and have produced a negative image of unfulfilled promises. For example, current population estimates used by MHUUD for Sixth of October are at least twice the reality, and the target used by McKinsey for the 2020 population of 2.5 million inhabitants is totally unrealistic. These projections become accepted and generate erroneous conclusions about the feasibility of a whole range of schemes (for jobs to be created, disposable income available, and public transport ridership for example). .

206. More transparency and information about city plans would also be welcome. For example, it is remarkable that maps of Sixth of October, showing land distributed, serviced, developed and still available, are non-existent (or at least not available to the public).[45] Furthermore, statistics on city development indicators and on sunk public investments need to be generated and published.

4.11 Policy Implications for Other New Towns

207. In general terms, the policy implications for other new towns broadly follow those advanced for Sixth of October. That is, there is a wholesale need for reform of the development philosophy for new towns, particularly in terms of land management. This means that systemic reform is needed in the following areas:

- Rethink what is the economic rationale for each new town, especially in the light of the increasing liberalization of Egypt's economy

- Take a hard look at the location advantages and disadvantages of each new town, including proximity to forward and backward linkages and supply chains

[44] Up-scale villa developments are appearing along the Alexandria Desert Highway (Stella, Green Oasis, Verdi, Sandorini, Cascada, Soleiman Golf, Wadi el Nakhel, Wadi El Malek, and El Reef el Uropi), and also on a huge section of the last remaining desert between Six of October and the Nile Valley. Office and commercial developments are clustering along the start of the Alexandria Desert Highway, most notably in the Smart Village. And Abu Rawash industrial area competes directly with that of Sixth of October. Finally, the Ministry of Interior is developing enormous areas west of Sixth of October off the Bahria Road.

[45] Even the McKinsey study has only the most rudimentary map of the city's expected development.

- Formulate strategies for better linkages and integration with existing nearby urban agglomerations. New towns cannot be treated as isolated geographic entities.

- Combat the speculative intent in land disposal

- Reclaim and recycle previous land allocations, densifying the city cores and re-establishing logical land development sequences

- Address public transport problems

- Avoid or at least rationalize subsidies (which implies first identifying them, especially those that are indirect or hidden)

- Avoid wishful thinking and non-transparent planning

208. Implied in these recommendations is the need for an economic feasibility review of all existing new towns, and a hard look at whether or not any further new towns should be established. In fact, until Egypt's new towns policy is redirected towards economic realities and justified in terms of economic and locational rationales, a moratorium should be put on the creation of any more new towns.

SECTION 5: INFORMAL URBAN DEVELOPMENT IN EGYPT

5.1 Introduction

209. This section contains a background brief on Egypt's informal urban development and what is known (and not known) about it. It has been included because of the crucial importance of informal urban development in shaping Egypt's urban morphology.

5.2 Definitions: What is Informal Urban Development in Egypt?

210. Informal housing and informal settlements have become an important part of the lexicon of Third World urban development. Sometimes called "spontaneous settlements" and often confused with the more pejorative "slums" "shantytowns" or "*bidonvilles*", it is generally meant to apply to urban expansion, most of which is for residential purposes, which is constructed outside legal processes. It may mean an area squatted and built upon or simply areas which are subdivided without approved plans and housing which is built without licenses or permits.

211. In Egypt informal settlements (called *ashwaia't* or "random" zones in Arabic) are ubiquitous in both urban and rural areas. They are illegal or extra-legal, in that they contravene one or more laws regulating planning, subdivision, construction, registration of property, and preservation of agriculture resources. As far as is known there is no official Government definition of informal areas or informal housing, and what different observers consider a correct definition often depends on perceptions and even prejudices.[46] However, according to the Ministry of Local Development (2001), as much as 1,105 squatter and informal settlements existed in Egypt, housing a total of 15.7 million inhabitants (a staggering 24% of the total population).

5.3 Information on Informal Settlements in Egypt

212. Overall the state of knowledge of informal urban development is poor. However, there is a considerable and growing amount of knowledge of informality on the micro-scale, which allows a relatively detailed view of conditions and informal settlement processes in particular informal areas. Unfortunately such knowledge – in the form of studies, reports, and articles -- is not easily accessible or even particularly widely known. Some of theses micro-level studies have been used and referred to in this chapter. A particularly useful flow of information on various aspects of informality is coming from *aashwai'i* upgrading projects such as those supported by German Cooperation (Nasriya, Manshiet Nasser, Boulaq el Dakrour) and, most recently, those supported by the World

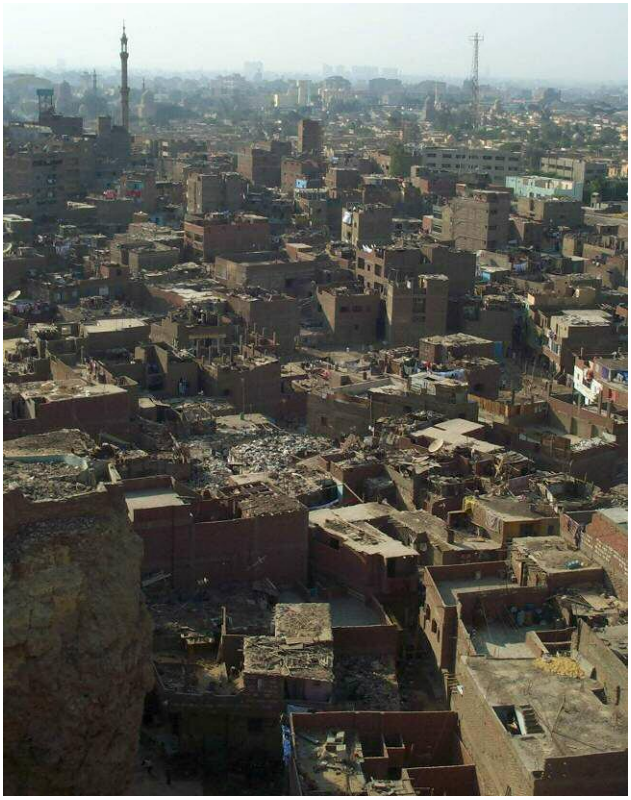
[46] See for example Kamel, Mohamed, and Makari, Samir, "Definitions of Informal Areas", Participatory Urban Management Program, Ministry of Planning and GTZ, 2000, in Arabic.

Bank (three informal areas of Alexandria). GOPP (1993-95) and the Ministry of Planning (2000-2002) are some of the government organizations which are have studied aspects of aashawi'i areas. Over the years academic work has led to articles with particular interest (e.g. Oldham, L., El Seoufi, M., Suleiman, A., etc.). Also, important information on informal housing, tenure, and extra-legality in Greater Cairo has resulted from the work of Hernando DeSoto (ILD, ECES, and USAID, 2000-2002).

213. Even with this growing body of knowledge about informal housing and *ashwai'i* areas, public and media perceptions of the phenomenon remain largely negative. In particular, many Egyptian journalists and academics still tend to see informal areas – in spite of the considerable body of knowledge about the phenomenon and its ubiquitous presence all over Egypt -- as haphazard, run-down, marginal areas of substandard housing where crime, deviant behavior, and despair dominate.

214. In the following sections existing secondary data and the opinions of informed professionals have been used to paint as accurate and extensive a picture of informal urban development as is possible, even to the point of over-generalization. It must constantly be kept in mind that there remain tremendous gaps in the understanding of informal settlements.

Figure 17 Mansheit Nasser, squatting on State land



5.4 Morphology of Informal Areas and Informal Settlement Typologies

215. The nature and characteristics of urban informality can be best understood by reference to the history of the phenomenon, which also helps explain the different sub-types and sub-areas.

216. The phenomenon of informal housing in Egyptian cities began to appear in the 1960's, and there are two main types:

1. informal settlements on subdivided former agricultural land where the builder has purchased land informally from other owners

2. informal squatter settlements on formerly state (desert) land, where the builder has only a "hand claim" (*wadaa' yed*).

217. In Greater Cairo the vast majority (81%) of informal settlements are on agricultural land, with informal development on desert (State) lands limited to about 10% of the total, and the remainder of informal settlements are on agricultural land nominally controlled by the State.47 These figures for Greater Cairo reflect more or less the situation in other towns. In some cities on the desert fringes of the Nile Valley the portion of informal areas on desert lands is significantly higher. In some places, such as Alexandria, informal areas have extended over large tracts of agricultural land whose tenure is a mixture of private, land reclamation authority, and religious endowment (awqaf) holdings.

Figure 18 Informal Expansion on Private Agricultural Land

[47] Sims, D., "Residential Informality in Greater Cairo: Typologies, Representative Areas, Quantification, Valuation, and Causal Factors, Institute for Liberty and Democracy, Lima, and the Egyptian Center for Economic Studies, 2000, unpublished˜

218. The main characteristics of informal areas are a product of their extra-legality, i.e. the complete lack of physical planning or control. There are few if any organized street patterns,[48] no public space reserves and little or no land for public services such as schools. Most streets are commonly very narrow (2-4 meters wide), except where canal and road right-of-ways allow for arterial streets. Land parcels are generally small, averaging 80-120 m^2. Buildings have no set-backs, and the whole parcel of land is built upon (except for narrow light wells). Since there is no construction licensing, there is no restriction on building heights and this results, over time, in extremely high population densities.

219. Although there is a risk of overgeneralization, it is possible to construct a list of informal settlement types or categories:

Older "village" style informal areas

Prominent in the 1960s and 1970s, buildings of 2-4 floors were constructed with load bearing masonry walls and either slab concrete or wood floors. This type is often found in what had been villages on the fringes of towns which have either (1) expanded into large informal areas or (2) were engulfed by horizontal urban expansion. Housing units were generally small apartments, although some individual houses were built. These settlements are relatively small, rarely exceeding 20,000 inhabitants.

"Classic" informal areas

[48] Interestingly, interpretation of satellite images shows that at when informal settlements first began to appear in the 1960s on agricultural land, there seemed to be some attempt to lay out street grids. But this early organized parcelation soon gave way to truly "random" subdivisions of agricultural parcels. Using satellite images it is possible to discern the old farm field patterns in the present day urban fabric of these later and more common subdivisions.

From the 1970s and up to today this type dominates. Buildings are built with RC foundations, frames, and floor slabs, with masonry (usually red brick) wall infill. Rule of thumb construction norms always allow for G + 5 floors. Building footprints are normally 75-125 m2 with total plot coverage, with one or two small apartments per floor (usually ranging from 40 to 80 m^2 per unit). Usually construction is progressive, with floors being added as finances permit. Some owners continue to add floors above the standard G + 5.

Street patterns in classic informal areas closely follow the previous agricultural field patterns or, in the in the case of informal settlements on State desert lands, they exhibit organic and even medieval urban forms. Lanes are rarely over 2 to 4 meters in width, except where agricultural canals have been filled in to form main roads. Open and recreational space is practically non existent.

Such classic informal settlements have grown in many cases to be truly enormous. In and around Greater Cairo there are many such settlements with populations that exceed 500,000 inhabitants, such as El Bassatin-Dar es Salam, Embaba (Mounira el Ghabia), Shoubra el Kheima, Boulaq el Dakrour, and Manshiet Nasser. On the other hand, classic informal settlements can be quite small pockets within the larger formal urban fabric.

The residential densities of these classic, mature informal areas can be very high. Net residential densities in Manshiet Nasser have been calculated to exceed 2500 persons per hectare.[49]

Figure 19 Ezbet el Matar; dense, mature informal area

[49] Cairo Governorate and GTZ, *Manshiet Nasser Guide Plan, Volume on Existing Situation*, 2001.

"Extended" classic" informal settlements

This type is similar to the "classic" type described above, but will contain a sizable portion of buildings with ten or more floors. This type is becoming more common in urban areas under intense development pressure, such as inner-fringe areas of Alexandria and Cairo and also in Delta towns. Some of these buildings tend to have larger footprints (300 to 500 m^2), larger apartments, and more apartments per floor. Heights can reach 15 floors. What makes this type unique is that the whole building is built in one stage and vacant apartment units are then put on the market. It is understood that groups of relatives or neighbors, mostly from Upper Egypt, pool their financial resources to rapidly construct and rapidly realize a profitable investment.

Figure 20 Vertically extended informal, Saft el Leban

5.5 Informal Construction and the Quality of Informal Housing

220. Contrary to common perceptions, generally the quality of most construction in informal areas in Egypt is good, with the most common type being 4 to 7 story apartment blocks of reinforced concrete frame and slab construction with brick infill walls. Progressive, floor by floor construction has been the norm, but recently "once-off" tall apartment blocks are becoming more common. Quality tends to be slightly better in

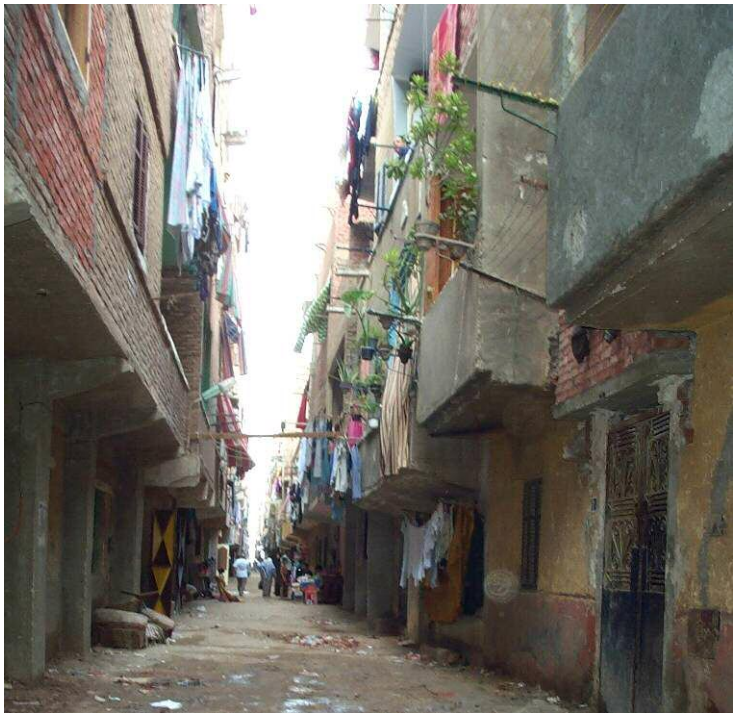
informal areas on agricultural land than those on desert land. Only in small pockets (usually on public rights-of-ways and in just-squatted desert areas) where tenure is insecure does one find precarious construction which begins to evoke the images of informal settlements which are standard in many parts of the developing world. There is a misconception held among many Egyptian professionals that informal housing is haphazardly constructed and liable to collapse. Since informal housing is overwhelmingly "owner-built", without contractors, it is in the owner's own interest to ensure that care is taken in construction.

Figure 21 Typical reinforced concrete construction

221. It should be added that in most informal areas, especially the more mature settlements, water and wastewater networks cover over 90% of households. Even so newer and fringe areas may have neither sewers nor water supplies, but it is generally accepted that government authorities will supply such networks at some point in time.

222. It should be added that metered electricity to individual housing units is practically universal in informal areas (as it is in all of Egypt).

Figure 22 Mature informal area with typical 4 meter lane



5.6 Who Are the Residents in Informal Urban Areas?

223. Another common misconception is that informal settlements are zones of unrelieved poverty and misery. Census statistics and a number of socio-economic studies show that most informal areas of Cairo contain households with a wide range of incomes and whose aggregate livelihood indicators are not much lower than the urban average. In addition, most of the micro, small and even medium size enterprises in Egypt, a vast sector which generates most of Egypt's employment opportunities, are found in informal areas.

224. In other words, any single informal area is likely to contain a heterogeneous mix of inhabitants.. Even in Manshiet Nasser, the largest and one of the poorest squatter areas in Egypt, one finds a mix of average bread winners, lower ranking government employees, professionals, tradesmen, etc. along side some extreme hardship cases.

225. This heterogeneity is due to largely to an area's development over time. Many families built or acquired their units in the 1970s with money from Gulf remittances, but circumstances did not improve and they now live in a kind of gentile poverty. Many others are sitting tenants who enjoy near-perpetual fixed rent contracts (those renting before 1996). Others are building owners who make little off of existing tenants and try to add more floors to improve their own family finances. In other words, every informal area exhibits both heterogeneity and certain uniqueness due to history.

5.7 Economic Life in Informal Urban Areas

226. Unlike most government housing projects, informal urban settlements in Egypt exhibit a remarkably high and diverse level of economic activities. This is particularly true for the larger, more mature and dense settlements. For example, in a study of Manshiet Nasser in Cairo (population 500,000), it was found that a full 50% of the active labor force worked within the area.[50]

227. Economic activities in informal settlements normally include the whole range of population-serving petty trades and commerce, retail stores, and services. Also prominent in many areas are small manufacturing establishments or workshops which "export" their products out of the area.

228. Although many workshops are un-licensed (or rather under-licensed, since the number of different permits required for industry are many and nearly impossible to acquire and keep up-to-date in their totality), most economic establishments in informal settlements are at least partly legal. And, it may be added, all property owners in these areas are assessed for property taxes.

5.8 What is the Extent of Informal Housing As a Share of the Total Urban Housing Stock?

229. It is only a slight exaggeration to say that informality is *the* defining characteristic of the modern Egyptian built landscape. Starting in the 1950s and 1960s significant desert areas on the urban fringes began to be squatted, and in parallel even larger areas private agricultural holdings on city and village fringes began to be subdivided and built upon in contravention of planning regulations. By the late 1970s the phenomenon had outstripped formal urban expansion. By 1996, in spite of increasingly strict legislation proscribing illegal construction, in many cities informal areas represented half of all residential areas.

230. As far as is known there has been no systematic attempt to quantify informal housing's share of the nation's total housing stock. Partly in response to the perception that informal areas bred religious extremism, in the 1990s the Ministry of Planning and Ministry of Local Development generated lists of the names of informal (*aashwai'i*) areas by governorate and classified them as to whether they could be upgraded or needed removal. These lists exhibited little consistency, included both classical *aashwai'i* areas as well as slum pockets and even run-down historic areas, and seemed to rely mostly on the subjective perceptions of local officials.

231. In 1993 the General Organization for Physical Planning (GOPP, part of MHUUC) produced a study entitled "Development of Informal Areas in the Greater Cairo Region" which represents the Government's best material to date on the phenomenon. In this study not only were *aashwai'i* areas named, they were categorized as to origin (on

[50] *Ibid.*

agricultural, on desert, on reclaimed desert, or on hills), mapped, and populations were assigned to them. GOPP estimated that 45.6% of the Greater Cairo Region's population (then at 12.9 million inhabitants) lived in informal areas. These results are a bit dated since they were based on the 1986 Census.

232. A study carried out in 2000 which relied on maps, satellite images, and ground checks estimated that in Greater Cairo 52% of residential districts are informal (as measured by net surface area), and that over 60% of the metropolitan population lived in these areas.[51] The definition of informal areas used was all residential areas appearing in images and maps to have no planned layouts (no street grid or hierarchy and no public areas and dedicated public services) and which were started to be developed after 1950.

5.9 Magnitude of the Production of Informal Housing

233. How much informal housing is produced annually? And how much does informal housing contribute to national housing production?

234. Answering this question is not easy, mainly because of the lack of commonly agreed definitions and also because informal housing units are not recorded in any systematic way when they are built. In addition, there is the confusion relating to "urban" versus "rural" housing. Even so, we have information which allows a preliminary if incomplete understanding of the magnitude of production.

Informal Housing Contributions to Urban Housing Production: Estimation by the Residual Method

235. In 1986 the Census recorded a total of 5.85 million housing units in urban areas at the national level and in 1996 this number rose to 8.45 million (including housing units which were being used for non-residential purposes). This implied that over the 10 year period 2.60 million new units had been built. Using figures on the production of formal private and government sector housing units in urban areas over the same period,[52] it is possible to calculate the contribution of the informal sector as the residual unexplained additions to the urban housing stock. This yields 1,175,000 units, or 45.2% of the total additions during the 10 year period. In effect, almost half of Egypt's urban housing units during the period were produced by the informal sector, quite an impressive share.[53] But this is probably an underestimation of the weight of informality in Egypt's housing for a number of reasons.

[51~] Sims, *op cit.*

[52~] Figures produced by the MHUUC's Housing and Utilities Sector.

[53~] The recent World Bank report on Egypt's housing supply (Finance, Private Sector, and Infrastructure Group, MENA, "Arab Republic of Egypt: Analysis of Housing Supply Mechanisms", October 2006) arrives at a slightly lower estimate of 37.2% of urban housing unit production in 1986-1996 period due to the contribution of the informal sector. This is mainly due to the exclusion of housing units built during the period which are classified as being used for work purposes.

236. First, these figures ignore rural areas, where in the 1986-96 period it can be inferred from the Census that over 2.0 million housing units were built. These rural areas (as classified by the Census) actually contain very significant urban agglomerations which in other countries would be considered as urban.

237. Second, a review of MHUUD figures show that over the 1987-1997 period the Government sector produced much more housing on an annual basis than it did either before or after. (whereas for private housing the annual rates were typical for the larger 1982-2003 period). Thus it could be said that the residual results derived here for informal housing under estimates the phenomenon of informality.

Informal Housing and Informal Settlements and their Expansion in Greater Cairo

238. Two studies of Greater Cairo which took place at different times allow a closer look at the contribution which informal housing production makes to the urban housing stock:

- In 1982 a USAID-supported study of informal housing concluded that in the late 1970s as much of 84% of new housing units in Greater Cairo were being produced by the informal sector (Abt Associates Inc. with Dames and Moore Inc , *Informal Housing in Egypt*, USAID, January 1982). This study was able to arrive at such a conclusion because integral to it was a large, representative sample household survey carried out in Greater Cairo. As far as is known, in the 25 succeeding years no similar study has been conducted in Greater Cairo or elsewhere in Egypt for that matter.

- A study which compares satellite images of Greater Cairo records that between 1991 and 1998 the net surface area of informal areas increased by an annual rate of 3.4% and it was calculated that the population of informal areas increased by 3.2% per year, representing an additional 200,000 persons or 42,000 families each year. In comparison, the annual population growth in formal, planned areas of Cairo was only 0.8%. ("Formal areas" excluded new towns and satellite cities). (CEDEJ, Information System for Informal Settlements, 2002.)

Informal Housing Production and Low Income Housing

239. Although there are no systematic numbers, it can be assumed that informal housing produced is on average less expensive and more suitable for families of limited income than that produced by the private sector. Such comes out of MHUUD figures which show that over the 1987-1997 reference period only 326,000 units produced by the private sector could be classified as "low cost" or "economic", 46% of total private sector production. And over the whole 1982-2003 period, of a total of 1.83 million private units produced, only 37% were considered "low cost" or "economic". Thus the informal sector's share of the production of low-cost housing units must be considerably larger than figures relating to the total urban housing stock would suggest.

5.10 Means of Financing Informal Housing

240. Because of its very informality, very little is known about how the production of informal housing units is financed. Much more work, especially through case studies, needs to be done in this regard. The following comments rely mostly on anecdotal information.

241. As stressed above, the production of "classical" informal housing is a progressive and quite long affair, the pace of which normally relies on an extended family's ability to save and otherwise mobilize financial resources. The first step is to purchase vacant land. With modest parcels easily fetching LE 350 per m2 today, an upfront payment will require marshalling say LE 30000 to LE 40000. This is a very large sum which may take years to accumulate. Then construction begins, usually the ground floor which will require accumulating as much as LE 20-30000, again a struggle which can take years. The additional floors (and rooms) similarly require further savings and conversion of other assets over years.

242. What are understood to be the main sources of such finance? Many observers consider the single most important source to be savings, especially savings generated by Egyptians working abroad. (At least in the 1970s and 1980s these remittances were the main sources of finance fueling the informal sector.) Other important source includes personal loans (usually without interest and usually from relatives) and from *gamaiias* (informal revolving credit groups). The conversion of other family assets (selling agricultural land, animals, jewelry, etc.) is also common. Another method, perhaps becoming more and more important, is the sale or rent of parts of a property to finance its further vertical expansion. This last point is helps explain how it is possible for simple families to produce over time multi-story structures which represent hundreds of thousands of pounds in investment.

243. As far as is known, there is no recourse to formal financial services in the informal housing sector. Informal property cannot be used as collateral (and in any event there is no real functioning mortgage system in Egypt), and personal loans carry high interest rates and require onerous personal guarantees. In a recent study of informal construction in three areas of Greater Cairo, finance from bank loans were mentioned as a source in only between 2 and 4% or cases interviewed.[54]

5.11 Informal Housing Market Dynamics

244. Although informal housing is produced in clearly different ways and in clearly different locations from either formal private or government housing, once units are finished they are just as exchangeable as any other units. They can be rented or sold or inherited, and there are even means to sanction and document such exchanges through

[54] Madbuli, M., and Lashin, A., "Informal Areas of Greater Cairo: Study of Conditions in Boulaq el Dakrour", 2003, in Arabic, no page numbers

perfectly legal means. These are either through registered power of attorneys or by court-endorsed *ourfi* contracts.[55]

245. In other words, market mechanisms of property exchange (both for purchase and rental) are very prevalent in informal areas. Market information is mostly through word of mouth, friendship and kinship networks, and also local brokers. Since the introduction of the new rental contracts in 1996, renting has become more common. (In a typical informal area there will normally be a rough balance between rental units and those which are owned). The housing market of course always is very sensitive to location, and there are "better" and "worse" informal areas. The market puts a premium on modern, planned neighborhoods over those which are called *ashwai'i*.

246. Recent anecdotal information shows that informal housing markets are quite sophisticated in the kinds of tenure and prices offered. For example, one finds a mix of rent/ownership options, where a buyer will pay a significant down payment and make installment payments for a set number of years. Also, up-front payments for renting are very commonly demanded, but with subsequent monthly rent quite moderate and supportable by most families.

5.12 The Causes of Informal Settlements

247. The standard explanation for such a vast phenomenon of informal areas in urban Egypt is straightforward: the formal housing sectors have been unable to provide an appropriate alternative for those of limited income. Egypt has a large and heavily subsidized public housing program which has produced an average of 40,000 urban units per year over the last two decades, and most of these units are built for families of limited income. In addition, the formal private sector has added even more urban units. Even so, these units have been insufficient in number, are wrongly located, or are too expensive for the mass of urban families. Without a legal alternative, these families have been forced into illegality.

248. Such a logic only partly explains the phenomenon. A true explanation must beyond this. Why do people invest massively and build in informal areas, with all of their "illegality"? One recent study asked this question and found that the most common response was "to be near family/relatives" followed closely by "close to work" and "attractive land price".[56]

249. In other words, the answer lies in the advantages of the owner-builder process of housing creation as well as in a relatively affordable end product. It is technically well understood in Egypt, is inexpensive, and it allows progressive construction according to family financial capacities. In addition, a big plus is that the process avoids government

[55] *Ourfi* contracts are simple contracts drawn up between two parties and witnessed by two persons. They derive from Sharia Law and are sanctioned in the Egyptian Civil Code. However, they are not accepted as valid by the Ministry of Justice's property registration offices (*shahr el aqari*).
[56] *Ibid*.

bureaucracy both in construction and in the acquisition of land. Key to the process is that the owner-builder and his family are the main actors (performing the roles of developer, site manager, and sometimes contractor), and every step of the process is sanctioned, not by formal contracts, but by personal acquaintance and trust. Needless to say, the informal housing process is extremely local in nature.

250. Formal sector land developments and subdivisions have proven totally unable to attract the dynamics of the informal sector. The main obstacles are embodied in the high subdivision and building standards and regulations which preclude both the smaller scale and efficient layouts used in informal processes and add significant legal and extra-legal costs as well as bureaucratic hassles. Also, most private sector housing developers are unabashedly selling images of modern, Western life. And most government subdivision schemes are also in remote locations far from the existing urban fabric and the all important informal economy.

5.13 Government Policies Towards Informal Areas

251. When informal areas began to appear in the 1960s and expand in the 1970s there was little interest in what was at first a very marginal and not very visible phenomenon, neither from government nor academics. In the late 1970s uncontrolled urban expansion on the Nile Valley's limited agricultural land became an issue, and this provoked a series of decrees and laws aimed at prohibiting further encroachments by informal settlements. These had little effect, and in the 1980s and 1990s further attempts very made to legislate away the informal phenomenon, culminating in 1996 with the promulgation of two presidential decrees which stipulated that *any* new construction on agricultural land and *any* urban construction without a valid building permit would be severely punished through military courts. These had a temporary dampening effect, but the vertical and horizontal expansion of informal settlements soon resumed, albeit with higher extra-legal costs.

252. Over the same period, it came to be recognized in some circles that simple prohibition of the phenomenon was insufficient and that the State should offer alternatives to informal settlements expansion on agricultural land. A small number of pilot desert subdivision schemes were proposed that aimed at attracting the informal housing dynamic, but with one exception none of these were successful. (See Box below).

253. In effect, the State has only begun to address the issue of informal settlements *after the fact*. In 1992, after some mature informal areas were perceived as breeding grounds for Islamic fundamentalism, the Government launched a national program for improving existing informal (*ashwai'i*) settlements. All such settlements were inventoried and most were earmarked for infrastructure upgrading, although some smaller and dilapidated ones were scheduled for removal. In 2000 the Institute for National Planning carried out an evaluation of the fund and noted that allocations were not always spent and that there were a number of other problems. Up until now

infrastructure upgrading has remained the cornerstone of the government's approach to informal or *ashwai'i* areas.

Figure 23 New sewer lines (KfW/GTZ), Manshiet Nasser

254. On the other hand the State has been totally unsuccessful in harnessing and directing the informal settlement dynamic. The subdivision and building standards applied to the new towns, plus the remote locations of most of these new towns, have totally precluded the attraction of the kinds of investors and actors who are so common in Egypt's informal settlements.[57] And in only very rare cases can it be said the private sector subdivisions even begin to attract the same actors.

255. Over the last 25 years a handful of innovative attempts have been made to "formalize" the informal settlement processes on State land. One such example, the Hay El Salaam Project in El Ismailia, is briefly described in Box 1.

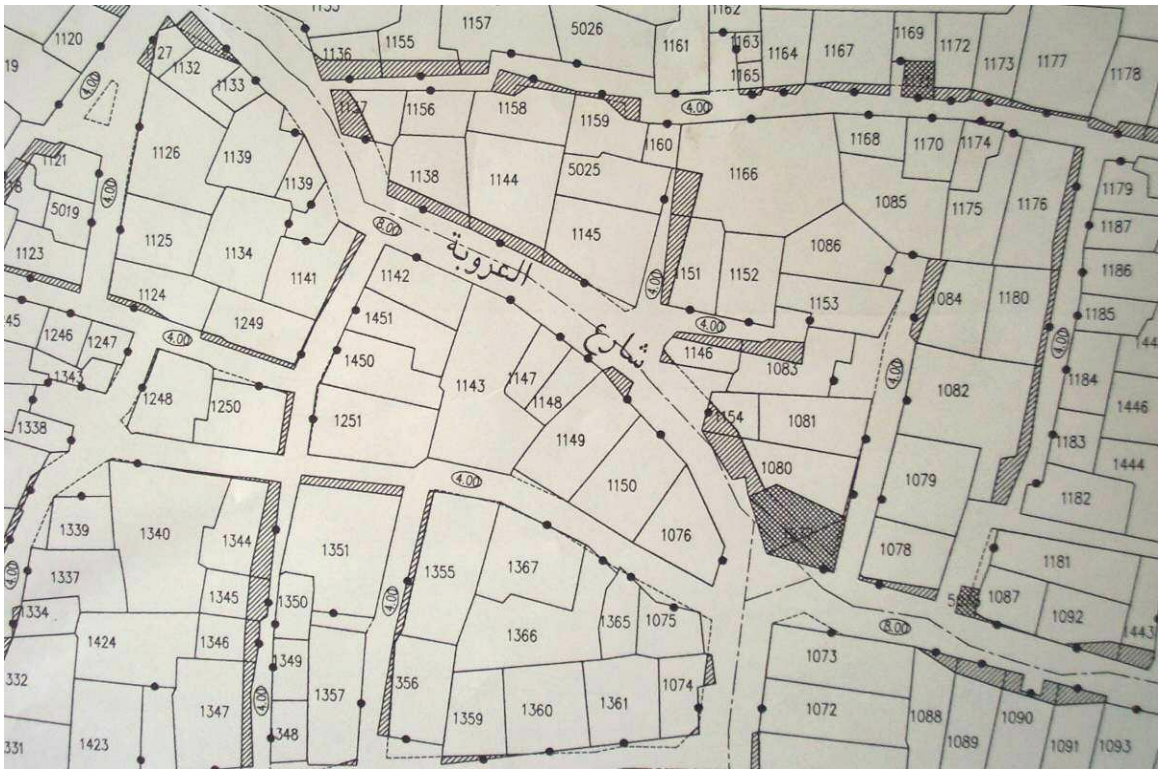
[57] The recently launched Ibni Beitak program, part of the President's 2005-2011 National Housing Program, is a kind of sites and services scheme which offers 150m^2 serviced plots (allowed construction on 50% of the plot and a maximum of ground plus two floors). Included is a once-off grant of LE 15,000 to beneficiaries to help finance house construction. The aim is to attract the kinds of individual entrepreneurs who are so common in informal areas. Initial response to the program announcement has been overwhelming, with over 100,000 valid applications received. However, the Ibni Beitak projects are located exclusively in new towns, and mainly in the least successful and remote ones where land is plentiful. Also, building standards are strict. Thus it will be interesting to see how well build-out and habitation in these schemes proceeds. (The first serviced plots were delivered in May 2008.)

Box 1: The Hay El Salaam Project: Formalizing Informal Settlement Processes

In 1979 the Governorate of Ismailia launched the Hay El Salaam Project on 240 feddans of desert land adjoining the city of Ismailia. With technical assistance from British aid and later UNDP, an independent Governorate agency was created, based on interpretations of recent local government legislation. The Agency undertook the upgrading and land titling of some 4,000 existing squatter families, and in addition subdivided adjacent vacant desert land into small plots (60-135 m^2) and sold these parcels at nominal prices to vetted Ismailia residents. Basic infrastructure was provided as were approved building plans which allowed a maximum of five floors. A key feature was that infrastructure and amenities were financed from the proceeds of land sales, in particular about 10% of the land which was sold at market prices. Build-out on the plots exceeded all expectations even though no loan financing was available. The Agency was dissolved in 1985 and the area became part of normal city government. By 1996 the population of Hay El Salaam exceeded 96,000 inhabitants.

Eventhough the project was largely auto-financed and showed how to capture the informal housing dynamic and legally redirect it on to desert land, it had little impact on national government policy and, except in other parts of Ismailia, was never replicated at any significant scale.

Figure 24 Official restructuring plan, Ezbet Bekhit (GTZ & Cairo Governorate)



5.14. Recent Trends in Informal Settlements

256. Government control over informal areas and attempts to prohibit illegal construction has increased since the promulgation of strict military decrees of 1996, at least in the fringe areas of Cairo and secondary cities where they are most visible. (Around smaller towns and villages which are within the urban orb, such control is still relatively lax.) This increased surveillance has not at all stopped informal residential construction, but it generated newer modes and additional actors in the process.

257. First, construction, at least of the first floor of a structure, must be done quickly. Also, building in open areas where construction is easily seen from main roads has become more difficult. In fact, local land prices put a premium on plots which are small, infill and hidden within the built fabric.

258. Secondly, there is a rising phenomenon of middlemen who specialize in overcoming and circumventing the control of government officials. These may be local lawyers or those who are called contractors (*muqawallin*) or agents (*simasara*). In a recent investigation of informal building processes in three neighborhoods of Cairo and Giza,[58], it was found that these middlemen were the primary organizer of construction in 37 to 41% of cases. In some cases they may be elected officials (in the Local Popular Councils or even members of Parliament). These persons personally know the local officials from the district (hay) and agricultural directorate and/or utilities offices, and they know how, when, and how much to bribe or ask for favors. They (especially the

[58] *Ibid.*

"contractors") also have many tricks to avoid coming under the eye of control mechanisms. These may involve building on Friday and during the night and blocking access streets with vehicles or even hire local toughs to either prevent entry or to create diversionary disturbances. It may involve building false walls to hide construction activity. It may involve getting an official in the agricultural cooperative to declare the land unfit for agriculture and other administrative maneuvers, as well as the purchase of bogus permits.

259. It is not that such bribes, maneuvers and subterfuges were unnecessary in the past. But in an earlier age things were simpler and it was usually the owner-builder himself who carried the burden.

260. The upshot of this all is that building an informal structure in sensitive areas has become much more expensive, which translates into higher prices for finished housing units, which in turn makes such informal development less affordable to those of limited income and modest family equity.

5.15 Concluding Remarks and Recommendations

261. Informal settlements in Egypt and the many extra-legal processes underlying it has, especially in the period 1970-1990, greatly benefited poor and modest families, both in producing a massive amount of housing which offered a range of choices affordable to most if not all, and in allowing those of the poor with at least some equity to participate in the process and enjoy its rewards. It is sobering to think what would Egypt's housing crisis be today without this.

262. It is no exaggeration to say that informal settlements currently house the large majority of Egypt's lower-income urban families and still provide them with the main option for new housing. And it could be said that informal settlements are one of the defining characteristics of Egypt's urban landscape. But there is a feeling that the opportunities which the poor could seize in the in past are becoming fewer and fewer (and more expensive), with the supply of affordable housing units drying up while demand increases inexorably, and as a result the housing problems for the urban poor and those with moderate incomes are becoming much more severe, with no alternative solutions on the horizon. Thus it could be said that, more than ever, it is imperative to create conditions which build on and encourage the dynamic of informal settlements practiced by the mass of Egyptians, a phenomenon which until now the government has either ignored or tried, unsuccessfully, to proscribe. Some of the specific recommendations to address the issue of informal development growth include:

1. Enforce cities urban administrative boundaries in Egypt, considering adequate *tahzem* zones.
2. Reduce fragmentation of land ownership and management responsibility: Transfer land management responsibility, in which there are informal or squatter settlements, to municipalities?

3. Enable Governorates to apply sustainable financing mechanisms: Deposit all revenues generated from land sale in squatter and informal settlements in a Special Fund within the Governorates (e.g. the Housing Fund or the Development & Service Fund, which already exist in all Governorates) with a delegated authorization from the center to reuse land sale revenues for upgrading purposes.

4. Increase technical capacity within Governorates to start a long-term program to prepare remodeling plans (new *Khotoot Tanzim*) for squatter/informal settlements and facilitate the processes of land regularization and house improvement/reconstruction permits, including cost reduction to obtain permits.

5. Put in place criteria to strike a balance on land sale prices between households' affordability and upgrading/valorization cost.

6. Benefit from past integrated participatory urban upgrading experiences in Egypt (with DFID in Hai Al Salam- Ismailia, USAID in Helwan- Cairo, and GTZ in Nasriya- Aswan). Such programs included: land titling, infrastructure & municipal services, socio-economic development (e.g. health & education, micro-credit for income generation and employment for men and women), and sites and services.

7. Apply global experience in sites and services in Egypt as a means to guide the formation/growth of new squatter areas, and enhance the roles of the private sector in providing housing and services.

8. Enforce the new unified planning law in delegating the function of setting urban planning and building standards in squatter settlements to Governorates.

SECTION 6: TRACKING URBAN ISSUES WHICH HAVE EVOLVED OVER THE LAST YEAR

263. In this section a summary review is made of very recent issues and actions directed at or touching on Egypt's urban sector. In this way, policy makers can be brought up to date on the evolving trends, emerging initiatives, and economic factors which affect Egypt's urban development. Volume One of the Egypt Urban Sector Note, which gives a comprehensive review of urban development in Egypt up to mid-2007, should be read first to provide the appropriate context.

6.1 Urban Planning and Building Legislation

264. After considerable review and revision of earlier drafts, the Unified Planning Law was approved by Parliament and was signed into law on 11 May 2008 as Law 119 of 2008. This represents a significant step forward, as the new law contains a number of innovations concerning urban planning and urban standards, as was outlined in Volume One, Section 6.8. In particular, the law sets up a National Higher Council for Urban Planning and Development under the Prime Minister with membership from all concerned ministries and authorities in addition to a number of urban experts. It also sets the framework for strategic urban planning under GOPP and its regional centers (including the preparation of guidelines and standards and the monitoring of urban growth), sets the modalities for participatory planning at the local levels and the operational procedures for the upgrading of slums and informal areas, allows the imposition of betterment taxes for urban improvements, and allows the application of land pooling or land readjustment in special development zones on private land.

265. This new legislation, however innovative, still requires the writing of the Executive Regulations, where most of the details governing these innovative aspects are to be worked out.

6.2 GOPP Strategic Planning and Information Initiatives

266. Over the last year the General Organization for Physical Planning (GOPP) has taken up a number of initiatives in the urban sector. These can be summarized as follows:

- The work to expand village boundaries to allow for a certain amount of expansion onto agricultural land (*heiz al amrani*) has been completed for over 3,500 villages out of a national total of 4,671.

- Work is continuing on the definition of areas on the fringes of cities for which limited urban expansion (*tahzim*) is to be allowed. Boundaries have been drawn

for some 50 medium and small sized cities, as well as for Greater Cairo and Alexandria as described in Section 2 above.

- GOPP has developed a methodological approach for strategic town planning (with 10 to 20 year time horizons), and so far 43 medium and small sized towns have had strategic plans prepared by local consulting firms under contract with GOPP and another 10 towns have had their strategic plans prepared with assistance through UN Habitat. Work is continuing on another 40 cities. This initiative is very welcome, as it for the first time addresses planning frameworks and information needs for the myriad of secondary towns in Egypt, almost all of which are found within the Nile Valley and Delta.

- Based partly on the UN Habitat urban indicators methodology, the Egypt National Urban Observatory, located within GOPP, is carrying out urban analyses in eight governorate capitals as a first phase. Included in investigations is a random building survey which should generate useful information about the housing and building stock and, in particular, the incidents and causes of closed, unfinished, and vacant housing units, a widespread phenomenon in urban Egypt.

6.3 Urban Finance and Local Resource Mobilization

267. It is understood that drafts of a new local authority's law are being prepared, although the actual status of this legislation is not known. Even so, there is a certain momentum towards more de-concentration and decentralization of central government authority to the governorate and markaz levels. For instance, at the beginning of 2008 the Ministry of Finance reformed the local budgetary allocation process to earmark specific funds to the markaz level (and within urban governorates, to the hay level) and to allow flexibility in switching allocations among different budget lines.

268. Another initiative concerning local resource mobilization concerns a new law on property taxes. At present the final draft is being discussed in the Shura Council and will soon be debated in the Peoples' Assembly. The main concern of Government is to create a more robust and buoyant mechanism for State revenues, but the implications on urban development are important. As it now stands, there is an exemption from the tax for housing units valued at under LE 400,000, and the tax is based on a rate of 12% of the imputed rental value of properties. Properties in the new towns are no longer to be exempt, which is very welcome, but the tax does not apply to vacant land, and thus it will not have the effect of dampening land speculation and may actually exacerbate such speculation (since the tax on real properties may cause a migration of speculative interest more towards land). As with the recently promulgated Unified Planning Law, there is an urgent need to write executive regulations which will clarify the application and operational modalities of the new property tax law.

6.4 Urban Transport Initiatives

269. The urban transport sector in Egypt has begun to receive long-overdue attention.[59] The World Bank is preparing a project called the Greater Cairo Development Project, and urban transport elements figure prominently as cost-effective and high-payoff investment measures, as well as targets for significant institutional reform. Urban transport related components include:

The creation of a Metropolitan Cairo Transportation Authority.
There is at present no active metropolitan level mechanism for addressing major transportation issues of regional significance. Given the large number of entities concerned with urban transportation in the greater Cairo region with their own priorities and agendas, it is imperative that a mechanism is put in place to ensure that the activities of these various entities are adequately coordinated.

Attracting Public Private Partnership for passenger transport investments
Two proposals have been advanced for seeking private sector assistance in improving passenger transport conditions in metropolitan Cairo, and one proposal for improving on-and-off street parking.

Upgrading the Heliopolis tram system and extension east to New Cairo
Upgrading of the portion of the Heliopolis Tram system (Metro Heliopolis) linking Heliopolis (Girls College) with Nasr City and line extension to New Cairo City is being studied as part of a strategy of better integrating new towns with the metropolitan fabric through affordable mass transit.

Bus Rapid Transport between Sixth of October and Cairo University
This proposal, initiated under a JICA financed study and calling for a dedicated busway for rapid, high volume passenger movement between Sixth of October and Cairo proper, is being considered. Busways are much more cost effective than rapid rail transit, the other main alternative being considered for this link.

Expanding and Improving on-and-off street paid parking.
A particularly important element of traffic management is the handling of both on street and off street parking. Vehicles are parked in locations that disrupt both traffic movement and the safe movement of pedestrians. There needs to be put in place a workable paid parking system that encourages turnover of available on-street parking spaces.

Expanding and improving traffic management and enforcement
The management of traffic in Cairo is among the worst of major cities in the world. There are an insufficient number of signalized intersections, and where they are installed they are manually controlled by traffic police who cannot possibly assess overall traffic conditions on the street network. Pedestrian

[59] Urban transport systems in Greater Cairo had been reviewed by the World Bank in 2000 and again in 2006. The JICA sponsored a traffic and transport study of Greater Cairo in 2002. See Section 3.7 above.

conditions are extremely poor and unsafe, especially for those who must cross several lanes of continually moving traffic. The absence of well designed and managed bus stops to keep buses and pedestrians away from moving traffic streams is absent. In short, a program of progressively improving on-street traffic management is not expensive and would yield very high economic returns at modest cost. In addition, the extensive training of the traffic police in modern traffic enforcement techniques and providing them with modern equipment and vehicles could yield substantial benefits.

270. While this project will only address urban transport in Greater Cairo, this is where the problems are their most acute. Lessons learned from the measures proposed for this project can be applied to urban transport challenges in Alexandria and other secondary towns in Egypt.

6.5 Information on Housing Markets and Movement towards a National Housing Policy

271. Since 2006, after decades of neglect, Egypt has begun to realize that it needs to focus on housing as a key urban component and a sector in its own right, and to formulate rational housing policies. This new view largely resulted from the launching of the new National Housing Program 2005-2011 (NHP) and the introduction of enabling legislation for housing mortgages (2001) and the setting up of housing mortgage institutions, as is described in Volume One. Over the last year there has been considerable further movement:

1. With support from the World Bank and USAID, both public and private mortgage institutions have been building up their capacities, and the mortgage portfolios of banks and mortgage companies have increased significantly. Still, mortgage lending is still very small when compared to the volume of housing transactions, and mortgage finance is still unaffordable (or simply rejected) by the majority of Egyptian urban families.

2. In May 2008 a World Bank team submitted to the Egyptian Government a proposed Housing Policy Reform Framework, representing the culmination of a year of analysis and discussions with a wide range of stakeholders. It lays out short and medium term actions to improve housing market functioning, to develop more affordable housing products, to rationalize and reduce subsidies in the NHP, and to better integrate mortgage financing into the wider housing finance systems.

3. In February 2008, with support from USAID, the Ministry of Investment launched a national housing survey in coordination with MHUUD. In 2007 a similar exercise had been carried out for Greater Cairo, and the new survey, which covers a representative sample of 15,000 households throughout urban Egypt, will generate a wealth of information about the occupied housing stock, household housing needs, affordability and preferences, demand for new housing,

and housing market behavior. Comparisons of housing indicators among geographic regions will be an important output. In particular, one data subset will relate to peri-urban Greater Cairo (using the same definition set out in in Section 4 above). The results of the new survey will be available by the end of 2008.

4. In March 2008 consultants, financed by USAID, responded to a request of the Minister of Housing and developed proposals to set up an independent housing information system to generate much needed housing market indicators, as a guide to both government and investors.

6.6 Urban Jursidictional Changes and Coordination Initiatives

259. In April 2008, by Presidential Decree, four existing new towns (New Cairo, Badr, 15th of May, and El Shorouk) were incorporated in a newly created governorate which also covers the formerly southern and eastern parts of Cairo Governorate. The new governorate is called Helwan Governorate. Also, a second new governorate was created called Sixth of October Governorate which incorporates the new towns of Sixth of October and Sheikh Zayed as well as sections of what were formerly Giza Governorate.

260. This move has increased the number of governorates in the Greater Cairo Region from three to five. This makes all the more important the need for better coordination in the planning and development of Greater Cairo. The World Bank's Greater Cairo Development Project (under preparation, as noted in the previous sub-section) includes as an institutional component the creation of a Greater Cairo Transport Authority. In addition, under a grant from the Cities Alliance, a City Development Strategy is being developed which has, as one of its cornerstones, the creation of a Greater Cairo planning council composed of the relevant governors, with coordination units embedded within each governorate.

6.7 Global Capital, the Real Estate Boom, and New Towns

261. New towns around Greater Cairo, and in particular Sixth of October and Sheikh Zayed to the west and New Cairo to the east, are benefiting from the current real estate boom in Egypt. So are other prime locations in and around Greater Cairo and to a lesser extent in Alexandria. The real estate sector has been vibrant for the last three to four years, but has accelerated over the last year, mainly due to the huge amounts of investment capital being generated in the Middle East due to high oil and gas prices. New integrated prestige schemes are being announced and implemented at a rapid pace. And the availability of capital has also generated a boom in land investment and up-scale housing in general.

262. NUCA has carried out some high profile land auctions over the last year which have generated colossal revenues, and more are planned. This certainly has improved the financial profile of some new towns, and it has underscored the benefits of managing

land resources for cost recovery in urban development. The need for such a "corporatist" approach towards the development of State lands for urban purposes was identified in Volume One as a crucial land management strategy which, until recently, had been sorely lacking.

263. Is the real estate boom sustainable? There is a frenzy of real estate buying and selling, but it is difficult to judge whether the vast amounts of land and property supply will be met by sustainable demand. Until now there are no information systems in Egypt which can begin to track and assess real estate market behavior. (See however Section 6.5 above.) Virtually all of the high profile investments are aiming at least partly at the upper end of the housing market, and some observers wonder if there is anywhere near the depth of demand needed for such projects, even considering that much demand is pure investment-oriented rather than reflecting utility demand.

264. Only time will tell. However, it is interesting to note that in late May 2008 an auction of 23 large parcels in Sixth of October (vacant land from the Dreamland scheme which was being sold to cover debts) only received bids for two of these parcels, and that the prices of LE 1100 and LE 1500 per square meter were much less than had been expected. Could there be, as property experts like to say, a noticeable "softening" in the market?

6.8 Inflation in Prices and Construction Costs

265. Egypt is not immune from the global increase in commodity and other prices. Over the last year the Consumer Price Index has risen to levels not seen in decades, and food and energy prices in particular have exploded, with the greatest impact on poor and moderate income Egyptian households, at least half of whom live in urban areas. These trends can only exacerbate urban poverty in general and housing affordability in particular. The price rises over the last year in building materials, especially cement and steel and fired brick, have been astronomical.

266. Egypt has maintained a policy of heavily subsidizing fuel costs for decades. But with the continued inflation of world oil prices over the last year, the Government has been forced to raise the price of petrol and diesel fuel twice, and further increases are expected. Clearly, the era of cheap fuel for transport in Egypt is coming to an end, and the implications on urban development can be expected to be substantial. These higher transport cost trends will underscore the need for planning and management which gives the economic factors of distance and locational attributes a more central place in urban strategies.

SECTION 7: CONCLUSIONS AND RECOMMENDATIONS

7.1 Meeting the Challenge: A Check of Last Year's Progress

267. In Volume One, written in June 2007, a number of recommendations were proposed to improve the approach towards the urban sector in Egypt. These were grouped as clusters or themes and included an action plan matrix (Volume One, Section 7). Table 7.1 presents a summary of how and to what extent there have been achievements or at least movements in addressing these themes over the last year. As can be seen, there has been a remarkable advance on several fronts.

Table 7. 1: 2007 Recommendations Checklist

Recommendations Made in Volume I		**Achievements over the Last Year/ Additional Work to be Completed**
Cluster 1	Re-evaluate the Desert Development Strategy and Increase Attention on Guiding Growth in Existing Cities	No fundamental rethinking of the desert development strategy, but the beginnings of a more realistic look at the role of the new towns. Reputable consulting firm hired to review the case of 6th of October and suggest a business plan. New Towns within Greater Cairo Region now constitute two new Governorates: 6th of October Governorate (to the west) and Helwan Governorate (to the east). Considerable movement towards directing attention on guiding growth in existing cities, especially through new legislation (the Unified Planning Law, ratified by the Parliament in 2008- Law No. 119/2008), and strategic planning initiatives of GOPP.
Cluster 2	Create Appropriate Planning and Building Standards for Urban Land Subdivision and Affordable Housing	The new Unified Planning Law allows for variations in planning and building standards, but much work needs to be done on the Executive Regulations which elaborate on, and operationalize, this law.
Cluster 3	Expand Control over Asset Management to Local Authorities and Enhance Their Ability to Pursue	Very little concrete movement on local authority asset management and in pursuing sustainable financing mechanisms. However, the kernels of a more 'corporatist' approach to

	Sustainable Financing Mechanisms	land management are apparent in the New Urban Communities Authority.
Cluster 4	Create a Policy Making Council and Improve the Urban Information Base for Decision-Making	Law No 119/2008 calls for the establishment of a National Higher Council for Urban Planning and Development under the Prime Minister. Such a council, when formed, will be in need of a technical secretariat or other technical arm for it to be effective. Initiatives undertaken by GOPP are advancing the information base for urban decision making, but much more analytical work needs to be carried out, fully discussed, and disseminated.
Cluster 5	Pursue Institutional Reform and Capacity Building for Urban Management	As yet little concrete steps have been taken to reform local authorities or to improve their capacities for urban management and for self-financing of urban development. Yet the new planning law (119/2008) gives GOPP the mandate to extend technical assistance to local urban authorities.
Cluster 6	Improve Public Land Management Mechanisms	No movement has been taken to improve public land management mechanisms at the national or ministerial levels. However, the technical assistance in inventorying public lands is being extended by the US Department of Interior to the National Center for Planning State Land Uses in 2008.
Cluster 7	Reduce Land and Property Speculation and Improve Mechanisms to Capture the Appreciation in Value (un earned increment) Due to Public Investments	A draft Property Tax completed and is scheduled for discussion in 2008/2009. Once applied, it may reduce to some extent the speculative intent for built urban properties, but not for vacant land, which is a serious loophole. Little movement is discernable to begin to set up mechanisms to directly capture the appreciation in urban property values due to public investments, although the new Unified Planning Law allows for the imposition of betterment tax. Some decentralized reform of central budgetary allocations to local authorities has been initiated.
Cluster 8	Review the Means and	GOPP's initiatives- 'setting urban boundaries'

	Tools to Guide Urban Development on Private Lands	exercise (*al heiz el amrani)*, and 'guiding informal expansion' (*tahzim)*, are very important steps in addressing the issue of guiding urban development on private lands. The Unified Planning law establishes the enabling framework for relaxed standards and land pooling or land readjustment. The devil, however, is in the details, specifically in the Executive Regulations which still need to be written.

7.2 Recommendations Concerning Appropriate Planning and Building Standards for Urban Egypt

268. The *tahzim* initiative to guide and control urban expansion on private agricultural lands represents a significant initiative. However, there are a number of difficult issues which remain as well as opportunities to make the *tahzim* initiative more cost-effective and replicable. These imply much more detailed studies and investigations, as follows:

Repeating and Improving Illustrative Examples

269. It should be obvious that the illustration chosen in Annex One is far from perfect, and that the approach for the El Mutamediya – Zenin area may not apply to areas with different characteristics. Thus the exercise should be repeated for other areas both around Greater Cairo and in other cities and towns which together would represent the typical typologies of agricultural areas under urbanization pressures.

Investigating the Real Economics of Land Conversion

270. Much more needs to be known about the economics of agricultural land conversion for urban purposes. What are prevailing prices and trends of land which is exchanged informally, who are the actors, and what are the micro-determinants of price variations? To what extent might land "taking" for public use be acceptable economically as well as socially?

Land Assembly and Exploring the Concept of Land Readjustment

271. The high degree of fragmentation of agricultural lands means that some land adjustment and assembly will be necessary. In the guidelines proposed here this factor has been taken into account by the creation of small "negotiation blocks". However, in Article 24 of the new Unified Building Law, the concept of land readjustment is introduced. This implies that it would be possible to declare a land readjustment area, that each land owner in the area would surrender his holding and, following the deduction

of land for public purposes, would be re-assigned a share of the resulting building land in proportion to his original holding. Any land owner who does not agree to the process would have his land expropriated as allowed by Law 10 of 1990, and compensated according to that law. Were such land readjustment legislation promulgated and codified, a whole new approach to implementing tahzim zones could be foreseen. However, this would mean that Egypt would be entering completely virgin territory, and international experience concerning land readjustment has not, with few exceptions such as in some East Asian countries, been very promising. Obviously, a careful study of the feasibility of this approach (including the legal and constitutional ramifications) would need to be carried out.

Applying Betterment Taxes (*muqabil tahsiin*) in Tahzim Zones

272. The GOPP documentation on tahzim zones calls for the relevant Governor to impose a betterment tax on land owners to cover the costs of introducing infrastructure to the new areas, to be collected at the point of issuing building permits. This is also mentioned in the new Unified Building Law, Article 16, with reference to the *muqabil tahsiin* Law 222 of 1955. Recouping the costs of infrastructure is laudable, but there are many issues which need to be clarified. If the meter squared betterment fee is so high as to make the land price un-economic, it will simply drive landowners into non-compliance and continued informality (especially since presently informal land conversion carries no infrastructure cost burden.) Also, there are many details which would need to be worked out concerning how the fees would be accounted for and managed to ensure that infrastructure is rapidly and efficiently provided to tahzim areas, and how these works would be integrated with infrastructure improvements in adjacent aashwa'i areas. .

The Land Registration Problem

273. Perhaps the most difficult issue concerns the legal stipulation that the subdivided agricultural land must be registered at the Shahr el Aqari and surveyed by the El Misaha el Misriya before subdivision and subsequent building permits can be issued. This will in most cases be simply impossible. It is imperative that the feasibility of a compromise system be investigated, such as an intermediate "no objection" certificate for agricultural lands where *orfi* and other ownership documents serve as sufficient proof of ownership. The important goal is to end up with organized areas where the resulting individual building plots have sufficient legal status to be "ready for building".

Relaxed building regulations

274. As implied by the planning standards advanced for the new proposed A and B zones, the small plots will make it very difficult for building designs to conform to all stipulations of the building code, particularly those concerning light wells, off street parking, etc. A simple architectural exercise could develop very simple and practical, and easy-to-understand standards for these small footprint and medium-rise buildings which guarantee sufficient space, light, and ventilation standards. This exercise would

greatly help in the drafting of realistic Executive Regulations for the new Unified Building Law Law.

7.3 Addressing the Needs of Peri-urban Areas

275. There is currently a complete policy vacuum as concerns peri-urban areas in Egypt, the largest of which is by far the peri-urban areas around Greater Cairo. The very phenomenon of huge population growth in these areas is hardly recognized.

276. A first step in formulating policies is very simple and obvious: the GOE must recognize and track the rapid population growth and the increasing concentration of poor and modest income families in peri-urban areas.[60] The fact that there are currently nearly four million inhabitants in peri-urban Greater Cairo alone, and that at least another 1.4 million inhabitants can be expected there in the next ten years) must be recognized and incorporated at three levels:

- At the governorate and local authority level, especially in terms of improved service delivery
- At the Greater Cairo planning level, especially in incorporating peri-urban areas into metropolitan transport and environmental strategies
- At the national level, especially in terms of greater allocations of investment budgets to support improved service delivery and infrastructure needs in peri-urban areas

277. What might be some of the interventions that could markedly raise living standards of the existing populations in these areas, are cost effective, and meet the needs of future population growth? These would relate to such interventions as:

- Extension of water and wastewater networks and strengthening existing systems, including affordable house connections
- Build needed schools and improve vocational training
- Street and lane paving both in towns and villages
- Major arterial road and intersection and traffic management improvements (and incorporation of peri-urban areas in Greater Cairo transport corridor plans)
- Better organization of private bus operations and improvement of modal-split nodes and stations, and licensing of tuk-tuks

[60] Hopefully, wide dissemination of this Concept Note will contribute to this recognition.

- Strengthen local authorities especially at the district and town levels

- Irrigation canal protection and covering

- Improved solid waste management (including public awareness campaigns) and extension of services to all settlements

- Creation of SME workshop clusters

- Allow limited planned growth of settlements on private agricultural land through the *tahzim* initiative

278. Three points should be stressed in considering these interventions aimed at peri-urban areas of Egypt:

- First, service delivery and infrastructure interventions will be extremely cost-effective, with the costs per beneficiary being extremely low, mainly due to the very high population densities and efficient settlement patterns.

- Secondly, practically all needed interventions already exist in Egypt, mainly as sectoral and rural development programs (as shown in column three in the above table). It is simply a matter of applying and/or concentrating these programs in peri-urban areas.

- Thirdly, in many sectors institutional and financial reform have gathered pace over the last five years in Egypt. The aim is to take advantage of these reforms and to apply them specifically to Greater Cairo's peri-urban areas. Of particular interest are means for better financial cost recovery, and the most promising areas are in the water and wastewater sectors as well as better local revenue generation, including the application of the betterment tax on land and properties (as allowed in the new, draft unified building and planning law) and revenues to be generated under the draft property tax law.

7.4 Changing New Town Policies towards Economic Success

279. In general terms, there is a wholesale need for reform of the development philosophy for new towns, particularly in terms of land management. This means that systemic reform is needed in the following areas:

- Rethink what is the economic rationale for each new town, especially in the light of the increasing liberalization of Egypt's economy

- Take a hard look at the location advantages and disadvantages of each new town, including proximity to forward and backward linkages and supply chains

- Formulate strategies for better linkages and integration with existing nearby urban agglomerations. New towns cannot be treated as isolated geographic entities.

- Combat the speculative intent in land disposal

- Reclaim and recycle previous land allocations, densifying the city cores and re-establishing logical land development sequences

- Address public transport problems

- Avoid or at least rationalize subsidies (which implies first identifying them, especially those that are indirect or hidden)

- Avoid wishful thinking and non-transparent planning

280. Implied in these recommendations is the need for an economic feasibility review of all existing new towns, and a hard look at whether or not any further new towns should be established. In fact, until Egypt's new towns policy is redirected towards economic realities and justified in terms of locational rationales, a moratorium should be put on the creation of any more new towns.

7.5 Towards Effective Participatory Urban Upgrading Polices

281. Informal settlements in Egypt and the many extra-legal processes underlying it has, especially in the period 1970-1990, greatly benefited poor and modest families, both in producing a massive amount of housing which offered a range of choices affordable to most if not all, and in allowing those of the poor with at least some equity to participate in the process and enjoy its rewards. It is sobering to think what would Egypt's housing crisis be today without this.

272. It is no exaggeration to say that informal settlements currently house the large majority of Egypt's lower-income urban families and still provide them with the main option for new housing. And it could be said that informal settlements are one of the defining characteristics of Egypt's urban landscape.

273. The explanations for such a vast phenomenon of informal areas in urban Egypt are largely economic and social. In particular, informal areas respond to economic fundamentals. The formal housing sectors (both public and private) have been unable to provide affordable housing solutions for the majority of urban dwellers in the locations they desire. On the other hand, informal areas generate huge quantities of small apartments which are either occupied by the owner-builder or are sold and rented through vibrant informal market mechanisms. And the urban quarters which are created (some of which exceed one half a million inhabitants) generate a whole range of enterprise and employment opportunities. And these areas are very well located within the urban space

with relatively good access to city centers. Thus it is no wonder the informality phenomenon has proven so popular, regardless of its extra-legality.

Recommendations

274. It is no exaggeration to say that informal settlements currently house the large majority of Egypt's lower-income urban families and still provide them with the main option for new housing. And it could be said that informal settlements are one of the defining characteristics of Egypt's urban landscape. Unfortunately, until now urban policies have largely ignored the phenomenon as an intrinsic dynamic of urban life. Urban upgrading is on the policy agenda, and there has been a welcome increase of interest in some informal areas and better tools are being developed for participatory upgrading under a GTZ program. Yet the upgrading approach treats these areas as specialized phenomena, either focusing on particular pockets which exhibit "slum" characteristics, or in simply redressing the shortfall in urban services in larger informal agglomerations. Donor-supported upgrading projects remain isolated pilots and "islands of excellence".

275. Is this all that can be done? Can any national policies which aim at improving urban livelihoods, at generating local economic growth, and at raising urban efficiencies hope to succeed while ignoring half of the urban landscape? Can urban poverty be addressed without including informal areas where most poor and moderate income families live now and where many more will locate in the future? And is it not possible to build upon the economic fundamentals exhibited by informality? The following are some suggested paths:

- *Changing perceptions.* The current misunderstandings about informal and squatter areas and the widely held negative perceptions need to be tackled through general information campaigns and also by targeting decision makers and professionals.

- *Political and fiscal empowerment to local authorities and technical capacity building.* Transfer land management and planning standards responsibilities to municipalities and districts in which there are informal or squatter settlements. Enable governorates and municipalities to apply sustainable financing mechanisms such as the reuse land sale revenues for upgrading purposes. Increase technical capacity within local authorities to prepare remodeling plans (new *khotoot tanzim*) for informal settlements and facilitate the processes of land regularization and house improvements/reconstruction permits.

- *Combine infrastructure upgrading in fringe informal areas with servicing adjacent new tahzim areas.* As the Government moves towards creating tahzim areas, neighboring fringe informal areas need to be included in infrastructure system design and implementation. This makes economic sense, and it is usually the case that newer, fringe informal areas are the worst off in terms of levels of infrastructure services, especially wastewater and roads.

- *Improving public transport and traffic in informal areas.* Accessibility and traffic into and within informal areas is frequently deplorable. At a minimum, main arteries need to be organized to maximize the efficiency of very limited space and to make the privately-run minibus system less chaotic.

- *Improve affordable housing markets in informal areas.* As pointed out in other World Bank reports on housing in Egypt, most affordable housing is generated in informal areas, and there is a need to make the housing rental system more transparent and efficient. There is also an opportunity to apply small targeted subsidies both on the demand and supply sides of these housing markets to improve housing offers for the poorest families.

- *Develop human resources in informal areas and support small and micro enterprise development.* It should be clear that great opportunities exist to target informal urban areas with programs which raise the skills and job-marketability of youth and which extend business support credit to existing and newly forming small and micro enterprises. These programs already exist in Egypt, and they would be more cost-effective if they were concentrated in the large, dense informal areas of cities which are so common in Egypt.

- *Benefit from past integrated participatory urban upgrading experiences in Egypt.* Examples include DFID in Hai Al Salam- Ismailia, USAID in Helwan- Cairo, and GTZ in Nasriya- Aswan. Such programs included: land titling, infrastructure & municipal services, socio-economic development (e.g. health & education, micro-credit for income generation and employment) and sites and services

Crucial Immediate Steps

283. The new Unified Planning Law sets out very significant enabling legislation for reform and innovation in urban planning and management. However, the task confronting GOPP and other government bodies is in the preparation of the executive regulations. These need considerable intensive attention in the next two to three months, as there are many operational details which need to be worked out. And these details of the executive regulations need to be very carefully crafted, as the intent of the Law opens up completely new territory as concerns guiding urban development on private lands surrounding existing cities.

ANNEX ONE: TECHNICAL BRIEF ON APPROPRIATE STANDARDS FOR CONTROLLED EXPANSION (TAHZIM) OF INFORMAL AREAS

1. In order to provide a concrete illustration of how the proposed concepts and guidelines for the detailed planning of tahzim zones would work, one tahzim area has been chosen. This is the Giza Middle Area (Area B) which is located in Mutemidiya-Zenin, just west of the ring road. In many ways this area is typical of urban fringe areas on agricultural land, where over time village agglomerations have greatly expanded into the surrounding agricultural land and merged with the urban fringe, estimated now to cover 537 feddans.

2. The GOPP documentation calls for the creation of an infill tahzim area of 664 feddans. The agricultural field patterns of this tahzim area are shown in Figures A-1 and A-2. GOPP has also presented a general layout for the tahzim area (See Figure A-3), with the following land use breakdown:

Open areas	5%
Housing	48%
Central services	17%
Local services	12%
Roads	18%

	100%

3. The same exact area has been taken to illustrate the proposed detailed planning guidelines . Figure A-4 shows how the tahzim area could be divided into A, B and C zones, and also shows how small "negotiation blocks" of agricultural strips and land holdings would be created to facilitate agreement on boundary adjustments. Figure A-5 shows the main street patterns and the location of open space and services.

4. The resulting land use budget for the proposed detailed planning of El Mutamediya – Zenin shown in Table A-1. Note that all together net residential areas (including minor lanes and streets) represent 66% of the total tahzim land area.

5. The detailed parameters of each planning zone have been developed to show how these standards could be constructed. These are presented in Table A-2, the land use guidelines for these zones are presented in Table A-3, and the calculated ultimate residential densities for these zones are presented in Table A-4.

Table A- 1: Land Use Budget for Revised Detailed Planning of El Mutamediya-Zenin Tahzim Area

Land Use	Feddans	Percentage
A Residential Zones	159.5	24.0
B Residential Zones	139.3	21.0
C Residential Zones	139.3	21.0
Local and Central Services	54.8	8.3
Green Areas and Public Spaces	20.2	3.0
Main Roads and Tahzim Zone Buffers	150.9	22.7
Total	**664.0**	**100.0**

Table A- 2: Proposed Planning Standards for Tahzim Zones on Agricultural Land

Standards	Zone "A"	Zone "B"	Zone "C"
Street widths	6 meters	8 to 12 meters	15 to 25 meters
Plot frontage	Minimum 6 meters	Minimum 8 meters	Minimum 20 meters
Plot depth	Minimum 7.5 meters	Minimum 12 meters	Minimum 20 meters
Average plot sizes	60 to 140 m^2	80 to 200 m^2	400 to 800 m^2
Maximum plot coverage	85% on average considering light well (manwar)	75%	60%
Required setbacks	None	Back; 2 meters	Back and sides; 3 meters
Allowed height maximum	G + 4 = 13 meters	G + 5 = 19 meters	G + 11 = 36 meters
Allowed height ratio	n.a.	1.75 x street width	1.5 x street width
Implied average plot FAR	4	4	2 to 6 depending on street width
Balconies on street	75 cm	100 cm	125 cm
Cross streets at least every	150 meters	200 meters	300 meters

Table A- 3: Land Use Guidelines for Tahzim Residential Zones on Agricultural Land

Land Use	Zone "A"	Zone "B"	Zone "C"
Open space	5% (pocket parks)	5% (pocket parks)	5%
Residential	75% (including local lanes)	65% (including local streets)	48%
Central Services	0%	10%	17%
Local Public Services	12%	12%	12%
Main Streets	8% (from existing canal/road r.o.w)	8% (from existing canal/road r.o.w.)	18%
Total	**100%**	**100%**	**100%**
Mixed residential commercial activities allowed?	Always	Always	On main streets only
Off-street parking	No	No	Yes

required?			

Table A- 4: Implied Ultimate Densities for Tahzim Residential Zones on Agricultural Land

Densities	**Zone "A"**	**Zone "B"**	**Zone "C"**	**Whole Area (at 1/3 each zone)**
Households	114 hhs per feddan	88 hhs per feddan	32.5 hhs per feddan	78 hhs per feddan
Population	429 persons per feddan	328 hhs per feddan	121 persons per feddan	293 persons per feddan

Figure 25 : Agricultural Field and Road Patterns in El Mutamidiya North

Figure 26: Agricultural Field and Road Patterns in El Mutamidiya South

Figure 27 Original GOPP Layout for El Mutamediya – Zenin Tahzim Area

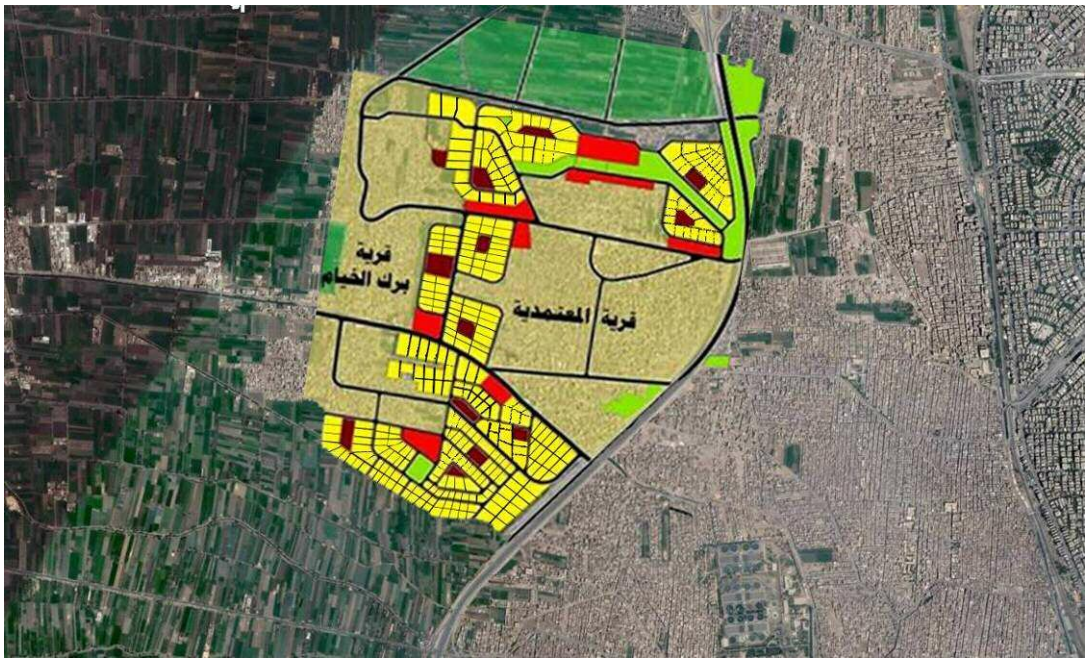


Figure 28 El Mutamediya – Zenin Detailed Plan- Tahzim Zones and Negotiation Blocks

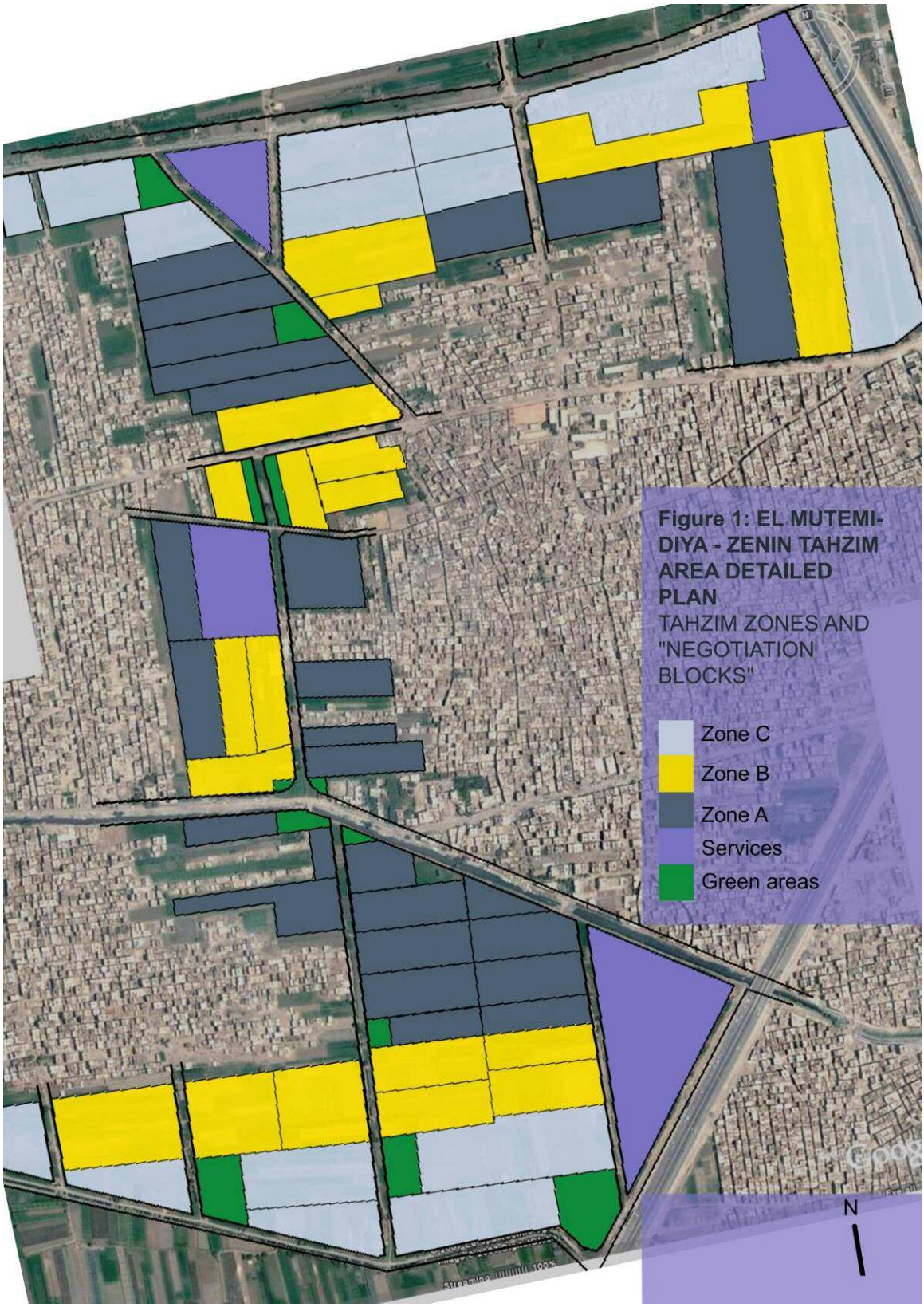
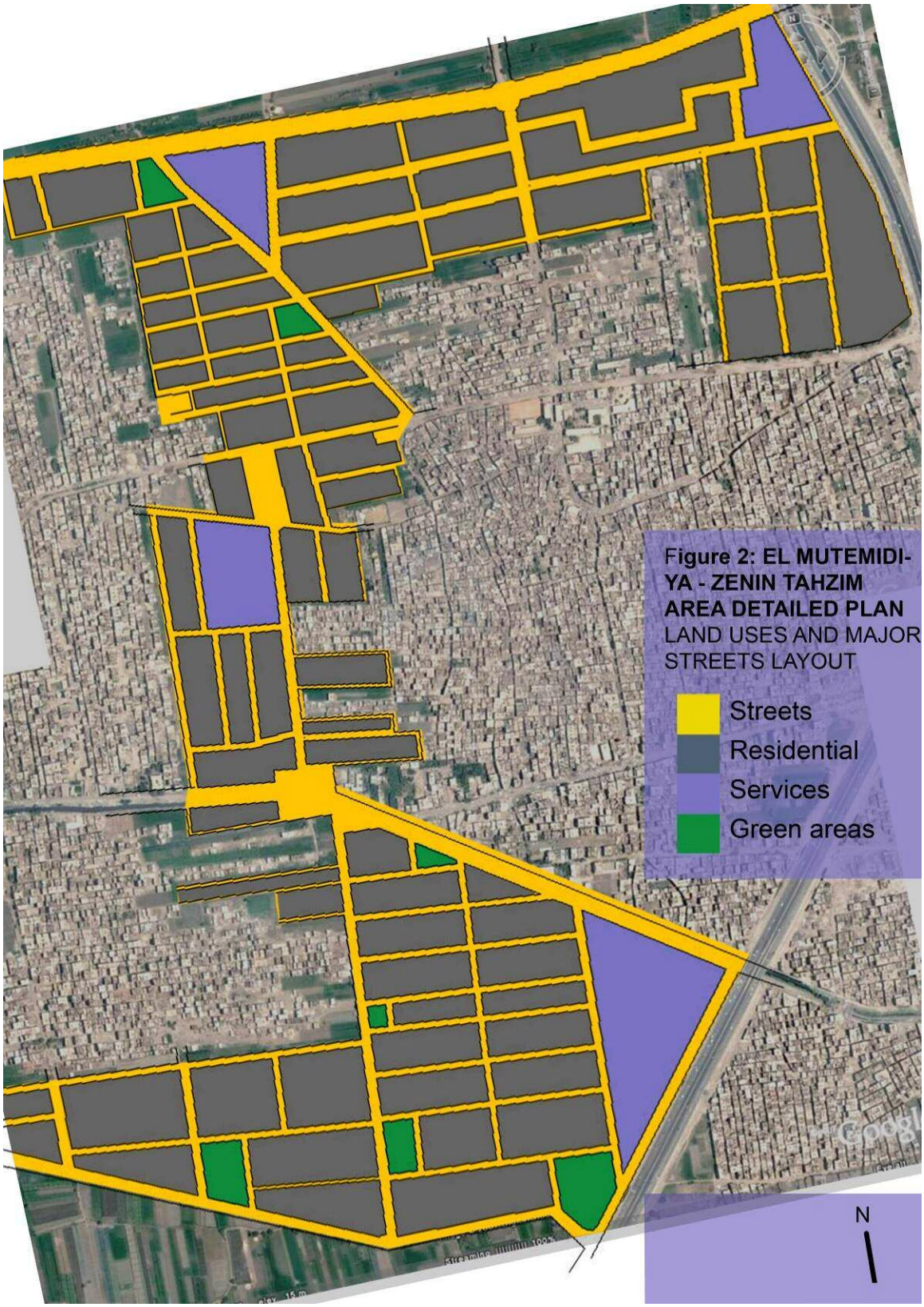



Figure 29: El Mutamediya – Zenin Detailed Plan- Land Uses and Streets Layout