

POVERTY AND URBAN DEVELOPMENT EFFECTS OF CONFLICT IN CITY DOWNTOWN A case Study: Koum El-Deka area, Alexandria, Egypt

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ABSTRACT

Deteriorated housing conditions are found in large-scale unplanned urban areas, which reflect its deterioration upon the residents on many levels. In city downtown, urban change problems are always accompanied with social problems and declining housing conditions. These circumstances produce an adverse impact on the environment, the human wellbeing and cause poverty problems. Urban development and human wellbeing improving strategies must be combined with widespread social security to provide an important cushion against poverty. The health conditions for poor people in the developing countries must cope with droughts, floods, illness, recession and civil strife.

Questions raised in studying these developing processes are as follows: how can we control the housing state and the residential circumstances, in addition to the poverty conditions in these areas? How can we improve the deteriorated human wellbeing situation in the downtown areas? Can we insure against poverty? Why are governments unable to finance recurrent costs of projects when development assistance is withdrawn? Under what circumstances is it justifiable to continue development assistance when the recipient is unable to finance its recurrent budget? Can we investigate the links between the micro and macro levels of aid financed capacity building? Is the issue of low salaries in the public sector sufficient for a long time and does it constitute a major problem in all efforts to improve their institutional capacity? The research aims at studying the impact of the unplanned urban change in the city downtown upon the human wellbeing of its residents.

Keywords: poverty; downtown areas; urban change; Alexandria, Egypt.

المُلخَص

إن تدهور ظروف المسكن بالمدن يظهر بأشكال وأنماط مختلفة وتزداد بشكل مطرد، بل ويظهر جليا علي نطاق واسع في المناطق الحضرية الغير المخطط لها، فهذا التدهور يظهر في عدة مستويات ونتائج تأتي مسببه آثار سلبية علي السكان والحالة العمرانية بهذه المناطق ومسببه في تغيير شديد في الأنماط الاجتماعية بشكل عام. فبالرغم من مظاهر رخاء بالمدن إلا أننا نجد في وسط المدن بشكل خاص تدهور ظروف المسكن، وأيضا تغيرات في التركيبة الاجتماعية، ومشاكل عمرانية وتداخل في الاستعمالات ... الخ. وبعبارة أخرى فإن هذه الظروف ينتج عنها تأثير ضار علي البيئة، كذلك تسبب في مشاكل الفقر بصفة عامة وتدهور الظروف السكنية ومواصفات السكن ونوعية الحياة ومستوى المعيشة بصفة خاصة. وعلى الرغم من اغلب الاستراتيجيات وضعت لتحسين البشرية وارتقاء السكان بالمناطق الحضرية ومقرنة علي نطاق واسع مع الضمان الاجتماعي، وتوفير وسادة هامة لمكافحة الفقر والحاجة إلى البقاء وتحسين الأوضاع الصحية للفقراء والتعامل مع حالات الجفاف والفيضانات، والمرض، والركود ... الخ، نجد أن بعض من هذه الخطط والاستراتيجيات لم تقدم النجاح المطلوب.

وتطرح الدراسة التساؤلات التالية: كيف يمكن التحكم في الإسكان والظروف السكنية، بالإضافة إلى ظروف الفقر في مناطق وسط المدينة؟ كيف يمكننا تحسين الوضع العمراني والاجتماعي في هذه المناطق والحد من الفقر؟ لماذا لم تتمكن الحكومات من تمويل التكاليف مشاريع المساعدة الإنمائية؟ ويهدف البحث إلى دراسة تأثير التغييرات العشوائية في المناطق الحضرية بوسط المدينة على المستوي العمراني للمساكن وكيفية تقديم بدائل الارتقاء بالمستوي الحضري للسكان.

الكلمات الدالة: الفقر- وسط المدن- التغير العمراني- اسكندرية، مصر.

1 INTRODUCTION

Deteriorated conditions of the housing state are found in large scale downtown urban areas, which reflect its deterioration upon the residences on many levels. In city downtown, urban change problems are always accompanying with social problems and declining housing conditions. In other words, these circumstances produce an adverse impact on environment, human well being, and cause poverty problems, which deteriorate residential areas in regard to housing conditions, quality of life, and standard of living. Urbanization process in the world and in developing countries in particular has escalated rapidly during the past few decades, because of population increase, and high rates of urban change that occurred within the city boundary. Urban transition and deterioration of urban quality are of the major factors that lead to poverty. Deteriorated city urban conditions, such as poor housing and unsuitable land uses consequentially deteriorate human wellbeing.

1.1 Research questions

Development of old cities and resulted urban change must consider their history background. Downtown districts of these cities, such as Cairo, Tunis, Marrakesh, Alexandria, etc., which have a unique style of architectural and urban design, are in need of a complete vision for an urban policy that cares for and preserves their heritage. This policy must have the applicable interests and appropriate awareness in the local and international levels towards residents' poverty state, human development, and urban housing standards. The research, therefore, highlights two main questions as follows:

- i- What are the urban, economic dimensions, and housing conditions of poverty and human wellbeing?
- ii- Does urban change and development contribute to urban conflict reduction and consequently to human wellbeing?

1.2 Research importance

Downtowns districts in old cities, which always have the historic identity, suffer from the conflict between policy and strategy. Extensive economic activities usually cause urban and environmental problems. These urban problems and activity encroachment lower standards and consequently deteriorate urban quality. Poverty is one of the major problems that exist in such areas. These areas, therefore, need to have some sort of concern in developing plans that meet requirements of residents and economic activities alike.

The importance of these areas is due to their cultural and historical values, which reflect the heritage, cultural, identity and religion images of nations. Residents, themselves, need to have a certain controlled urban system of developing, building and upgrading to avoid random urban change's harmful impacts.

1.3 Research problem

Hearts of the Egyptian cities suffer from the negative impacts of local urban change, which affect the environment and its urban state. On the other hand, recent economic changes affect urban policies and its process. In the last few years, city downtowns suffered from the following major problems:

- i- High density of population in the original cities
- ii- Lack of services
- iii- Increasing infrastructure problems
- iv- Acute housing problems
- v- Misuse of land and uncontrolled urban growth.⁽¹⁾

These urban problems and their adverse impacts can be improved by providing some form of control on land-use changing and to the urban economic transforming processes.

1.4 Research Hypothesis

Therefore, to control the poverty state and reduce conflict, a comprehensive plan should be followed and applied. This plan has to consider history, background of cities and future image and its interests in improving human wellbeing and overcome poverty as well.

1.5 Research aim

The research aims to increase the focus of urban change on conflict issues, and to facilitate the interaction between urban planners, architects and other social scientists to work on developing the human wellbeing conflict and post-conflict reconstruction. Consequently, from these points, the research purpose is directed to study the impact of the unplanned urban change in city downtowns upon the human wellbeing of the residents. Major goals to develop urban areas are as follows:

- i- Controlling urban change
- ii- Finding or representing the balance of the needs of housing and the supply (existing and future) of houses.
- iii- Enhancing participation.
- iv- Providing more jobs opportunities and encouraging development in regions, that have new resources.⁽²⁾

1.6 Research methodology

A theoretical background will be discussed, followed by an analytical methodology for city downtown problems in the selected case study: "Koum El-Deka", Alexandria, Egypt. This case study can be considered as a sample of city downtown problems. Field survey and questionnaires are used in the study. Conclusions and recommendations to enhance urban and housing conditions are presented in the end of the paper.

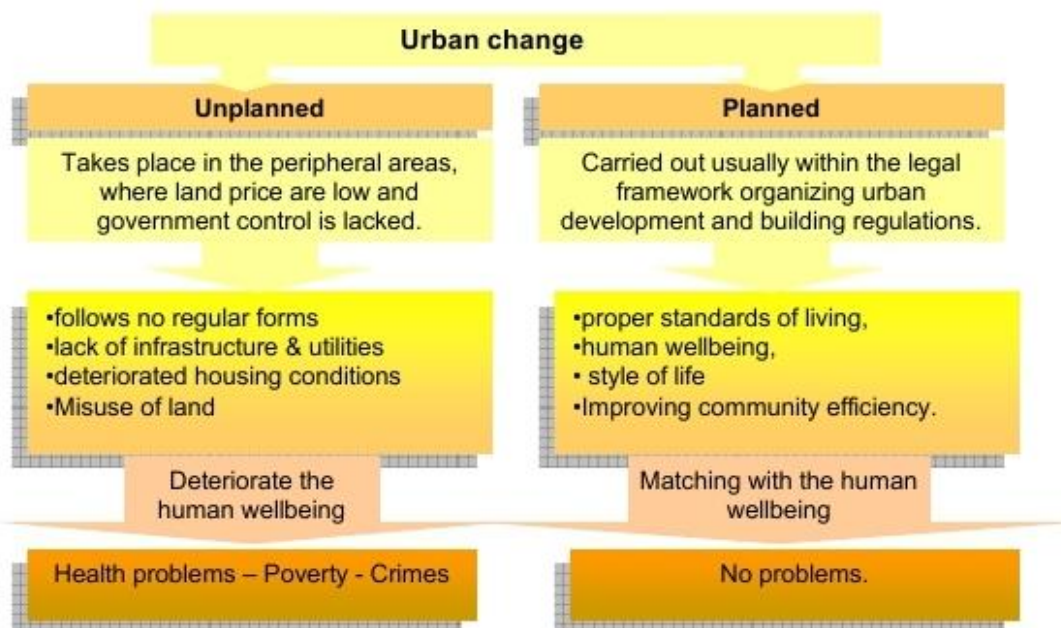
(1) El-Dardiry, Dalia, Management of the new urban settlements development , Architectural Department, Faculty of Engineering, Menoffia University, Egypt, unpublished PhD, 2002

(2) El-Dardiry, Dalia, unpublished PhD, 2002

2. URBAN CHANGE IN CITY DOWNTOWN

Due to the socioeconomic changes in the last years, urban change in city downtown can be classified into two main forms. The first is planned change which follows certain patterns and takes into consideration the various elements that affect standards of living, human wellbeing, life style, and improving community efficiency. This form of change is carried out usually within the legal framework. Organizing urban development and building regulations in this case always respect the existing urban pattern. The second form of urban change is mainly unplanned, and often takes place where land prices are valuable and government control is lacked. Consequently, this form of change increases the percentage of crowding, urban and socioeconomic problems, and negatively affects infrastructure and utilities in these parts (Fig. 1).

Figure (1) Forms of urban planning



Many studies focus on the impacts of socioeconomic changes upon human life, especially after GATT agreement and globalization. Studies emphasize the problems associated with unplanned urban change, which seem to be very severe in developing countries, particularly with the lack of financial resources needed either for establishing and enforcing proper legal and institutional framework to control urban change processes, or for adopting remedial actions and schemes to improve the deteriorating conditions in rapidly changing urban areas. Cities' downtowns in particular suffer from these unplanned urban changes as well.

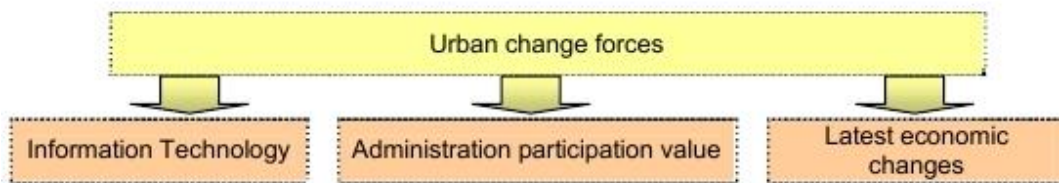
In order to tackle such problems, a wide range of policies and programs have been suggested all over the world. It should be born in mind that the problems are very complex in nature and have a wide range of diversified consequences. This means, therefore, that such problems should be handled, studied and possessed carefully and

wisely depending upon the actual conditions and circumstances of each individual case.⁽³⁾

2.1 Urban change forces in Egypt

Human being activities are affected by socioeconomic changes and urban change. The environment and human being have two major interaction relationships. One is related to the surrounding environment and its related conditions. While the other is related to resources that are used by human beings and should be directed for the best use in its developing. On other hand, three major forces affect internal and external (national and international) urban circumstances. These forces impact international economic competition, and consequently, positively impact urban change opportunities (Fig. 2).

Figure (2): National and international urban change forces



2.1.1 Economic changes

After a decade of slow economic growth, Egypt's rate of growth recovered in the late 1990s, averaging more than five percent a year. But the effect of this growth on poverty patterns has not been systematically examined using consistent, comparable household datasets. El-Laithy et al. (2003) concluded that the average household expenditures rose in the second half of the 1990s, and the poverty rate fell from 20 percent to less than 17 percent. But, in addition to the ongoing divide in the urban-rural standard of living, a new geographical/regional divide emerged in the late 1990s. Poverty was found predominant.⁽⁴⁾ Some determinants of growth in Egypt since the mid-1980s had been examined using insights from both standard econometric techniques and a diagnostic approach proposed by Hausmann, Rodrik and Velasco (2004). It was found that trends in government consumption, credit to the private sector and the average growth rate of OECD countries have been significant determinants of growth in Egypt in the past.⁽⁵⁾

Globalization, as the latest economic concern in the latest few years is considered one of the major economic forces in its power and effects, which consequently affected urban features and characteristics. Nowadays, most of the economic roles in a large

(3) Elghonaimy, Islam, Subject: "Environmental Management and Economic Branch" Thesis title: "The relationship between Housing Conditions and unplanned other Land use in Rapidly Growing Urban Areas" M.Sc.(Environmental Studies and urban planning), Institute of Graduate Studies and Research, Alexandria University 1994

(4) El-Laithy, Heba , Lokshin, Michael & Banerji, Arup (2003), Poverty and economic growth in Egypt, 1995-2000.

(5) Anton Dobronogov & Farrukh Iqbal, 2000, "Economic Growth in Egypt: Constraints and Determinants," Development and Comp Systems 0512024, EconWPA, <http://ideas.repec.org/p/wpa/wuwpdc/0512024.html>, 2005.

amount of the nations are directed to follow globalization roles.⁽⁶⁾ The international and the global economic hierarchy bases were modified and rebuild on the following:

- i. International Monetary Fund (IMF).
- ii. World Bank
- iii. World Trade Organization.

These three elements almost control the dated economic changes, and consequently have the major impact upon cities' development and future. These forces affect the land market and value, in addition to land use changes as well.

In Egypt, macroeconomic trends and roles were changed many times according to international forces. It has a stable economy in the Middle East and North Africa enjoying continuous growth, averaging 4%–5% in the last quarter of the past century. The economy embarked on various stages of development during which the public and private sectors played roles varying in relative importance:⁽⁷⁾

- i. **Import substitution and nationalization**, 1952–1966, during which the first program of industrialization in 1957 was established and led by the public sector in heavy industries such as iron and steel and chemical industries, and the nationalization which receded the relative importance of the private sector.
- ii. **Inter-war**, 1967–1973, adversely affected the performance of the economy and public sector role in import substitution.
- iii. **Openness euphoria**, 1974–1981 during which policies were introduced to encourage Arab and foreign investment through a series of incentives and liberalizing trade and payment; the economy expanded but this proved unsustainable and growth consequently scaled back.
- iv. **External debt crisis**, 1982–1990, the external debt crisis and Paris Club re-scheduling and debt reduction.
- v. **Economic reform**, 1991–2007, reform policies were introduced under the terms of international institutions, lenders and donors, including wider incentives to the role of the private sector in all economic activities.
- vi. **World food crisis**, 2008, soaring food prices, especially for grains, calls for the government to provide more immediate assistance to the population of more than 40% in the "poverty tunnel" and to strike a "new deal" on agriculture policy and reform.
- vii. **World global financial crisis**, 2008–present, Egypt to face the repercussions of the global financial crisis on the national economy.

Each period had its impact upon the city urban change. Change in labor forces and job opportunities had major impact as well. Consequently, major impacts occurred upon land value, urban change and residents requirements.

2.1.2 Management Cooperation Methods:

Management methods in Egypt changed from complete control of the governmental sector upon the economy and projects to cooperation with the private sector and

(6) Angus McIntosh, *Towns and Cities, Competing for Survival*, 1996. P.1

(7) *Economy of Egypt*, Central Bank of Egypt, MPC Press Releases 2009.

increasing its role in urban development and management throughout the following implementation policies:

Privatization of the public sector and the governmental companies

Privatization was implemented throughout the following actions:

- i. Selling part or the all of the public sector and the governmental companies
- ii. Closing losing companies
- iii. Participation in company capital
- iv. Investing in companies by private sector participation
- v. Applying innovative systems such as B.O.T.

Privatization had different defects such as the disturbance in the local economy , in addition the lay-off of labor of sold companies.

Participation between government and the private sector in management

This sort of participation is considered as one of the major successful actions in the developing countries. It allows for the government to have an upper hand in controlling the development process according to its benefit, in addition to protecting labor rights.

2.1.3 The political economy of urban form

Although a firm theoretical foundation for understanding the relationship between political economy and urban form has been created in the western based literature, such approaches are of limited applicability for understanding cities in the developing world. By analyzing the impact of four political economic regimes (Islamic, Imperialist, Arab Socialist and Transitory) on the urbanscape of Cairo for instance, political economic regimes imprint their ideology on the urban morphology. The representation of this ideology is manifested in both city form and function. Evidence from Cairo finds out that political economic shifts, particularly those which alter the nature of the city's relationship with the global economic system, had far-reaching impacts on the city's urbanscape.⁽⁸⁾

2.1.4 Information Technology (IT)

In the few past decades, and especially in the last few years, IT had impacted major urban developing projects. Rapid change that accrued in IT, and the accompanying impacts on the theory of urban change and land use changes methods, reflect major changes in planning and architecture methods.

2.2 Land use characteristics

Land use characteristics and patterns present the major elements affecting environmental conditions, living standards and human wellbeing in urban areas. There are several definitions for the term *land use*. Theoretically, it can be argued that, there is a sound case for emphasizing human activities as center of any study of land use. If

(8) Dona J. Stewart , Changing Cairo: the political economy of urban form. International Journal of Urban and Regional Research, Volume 23 Issue 1, Pages 103 – 127, Published Online: 16 Dec 2002, Journal Compilation © 2009 Joint Editors and Blackwell Publishing Ltd

this proposition is accepted, a general definition appropriate for the purpose of this study was provided by Land Utilization Survey in Britain. In this definition, it was argued that: "land use deals essentially with the spatial aspects of all man's activities on land and the way in which the land surface is adapted, or could be adapted, to serve human needs".⁽⁹⁾

In general, major uses are conventionally defined. These major categories include: residential areas, commercial areas, industrial areas, open spaces and recreational areas, infrastructure (water, sewage and power supply), transportation, and services(education, medical, cultural, and others). Different types of land use have major reciprocal impacts upon each other.

2.3 Housing environment quality and human wellbeing

Quality of housing environment and its conditions can be categorized as shown in Figure (3).

Figure (3) Housing environment quality



Housing environment quality, internal and external, plays an important role in human wellbeing. It depends upon the quality of the surrounding environment. Proper building design should invariably take into consideration various elements of the surrounding environment. This means that surrounding elements, in terms of both environmental elements as well as types of nearby land uses, should be carefully examined in order to enhance the beneficial impacts of such elements, and reduce their negative impacts on housing quality.

2.3.1 Environmental housing conditions:⁽¹⁰⁾

Noise

Noise intrusion in domestic environment can significantly reduce quality of life; conclusive evidence of its role in the impairment of health is scant. Noise can be shown to disturb sleep and reduce its quality as well as lead to loss of hearing.⁽¹¹⁾ Yet one of the main effects of noise in the domestic environment is probably the stress which can

(9) John S Willson & Philip Tabas & Marian Henneman, "Comprehensive planning and the environment, A manual for planners", Abt Books, Cambridge, Massachusetts, (1979).

(10) Dalia El-Dardiry, "Master degree", of science in environmental studies, (Environmental Physical Branch). Thesis title: " Environmental Housing Conditions in New Urban Settlements in Egypt (Case study: New Borg El-Arab), Department of Environmental Studies, Institute of Graduate Studies and Research, Alexandria University.

(11) Randall McMullan, Environmental Science in Building, third edition, M.Macmillan, Hong Kong, 1989.1992.

affect the individuals' psychological wellbeing, and consequently their performances. Environmentally, noise can be defined as "the unwanted and disturbing sounds."⁽¹²⁾ The acceptance of noise is also affected by the external factors such as type of environment, frequency structure, and duration. Assessment of noise must take these factors into account, and the scale used to assess them should be appropriate to the type of situation.

- i. **Sources of noise:** Noise can result from a wide range of sources, such as Traffic, Railways, Domestic noise, Industrial, Commercial uses, and Other sources⁽¹³⁾
- ii. **Impacts of noise:** Noise affects human beings in a number of ways disturbing work, rest, sleep and communication. Generally the impacts of noise include Hearing loss, Quality of life, Stress, Annoyance, Disturbance of sleep and Effects on performance
- iii. **Noise control:** Noise could be controlled through the controlling of the followings: Source, Path, and Receiver.⁽¹⁴⁾

Climatic Conditions

A fundamental reason for the existence of a building is to provide shelter from climatic factors, such as cold, heat, wind and rain. In order to design a building which is appropriate for its site, climatic conditions of that site needs to be studied and predicted. The main climatic elements may include, heat, humidity and condensation, wind and direction.

Natural Lighting

Lighting and effects of light are major elements in the human sense of the environment. Both artificial and natural sources of lighting are used in buildings. Inadequate lighting has also been associated with eye strain and impairment of mental health.

2.3.2 Provision of services

Houses should be served in proper condition by the following service systems: electricity, water, sewage, and solid waste domestic collection.

2.3.3 Housing design and building materials

Privacy and overcrowding

Privacy in the home satisfies the needs of the individual for self reflection, intimate conversations, study, etc. Poor privacy leads to deteriorated human wellbeing. The existence of a link between overcrowding in domestic environment and illness of occupants has been generally accepted for over a century. There is also a significant association between both low and high internal density and psychological distress, proposing the inclusion of density considerations in state guidelines for architects.¹⁵

(12) R. Chudley Mciob, "Constructed Technology", Volume I, English language Book Society, Longman, Singapore, 1985.

(13) Noise can also result from nearby construction work and schools and incorporated within neighboring residential areas

(14) Randall & Mcnullan, Environmental science in building, third edition—M.Macmillan Hong Kong, 1989, 1992

(15) Gabe and Williams, 1986.

Aspects of design and construction building materials

Building materials, with the possible exception of asbestos and radioactive stones, are rarely linked to health problems and play a major role. Unfinished dirt floors from compacted earth are common and these can give rise to hookworm infections as the parasites enter the body through the skin. The prevalence of asthma is also greater. Poor internal layout, inadequate lighting and lack of space all contribute to the occurrence of accidents.

2.4 Interaction between housing conditions and land use

There is a strong relationship between different types of land uses and housing conditions. Each type of land use has particular impacts on housing conditions, whether major or minor. Some criteria should be mentioned in the land use design, which are as follows:

Setting of houses

Mixed forms of development, due partly to this factor, are often desirable from both the architectural and social point of view. Spaces between buildings can be considered from several, interrelated, perspectives and can be grouped under the following headings access (vehicles and pedestrians), garaging and parking, and communal spaces vs. private ones.

Industrial land-use

Depending upon activities' nature carried out in the industry, locating industry within close range of residential areas may lead to many problems such as: noise, water, and air pollution; socioeconomic problems; and overload on transportation and traffic systems, streets, services and infrastructure. To avoid the negative effects of industry, usually industries are located at some distance away from other land-uses. Such distance depends upon the type of industry considered.⁽¹⁶⁾

Commercial land-use

It should be taken into consideration that large-scale, multi-shops commercial centers need to be kept some distance away from residential areas so as to reduce noise impact as well as crowded streets and footpaths by shoppers.⁽¹⁷⁾

Services (as land-use)

There is a conflict between locating of the services (e.g., schools) near houses for easy access.

Traffic

Town planning and traffic conditions should be considered in order to avoid damaging amenities, and causing traffic congestion with the consequent avoidance of a station by motorists.⁽¹⁸⁾

(16) Mills, 1985

(17) A. K. Allam, City Planning, Cairo-1983, PP379-380

(18) Mills, 1985

Infrastructure

Infrastructure networks must be taken into account in the land use planning process to eliminate the problems and dangers which may result from improper connection of these networks. Available sufficient land must be available for safe disposal by other means.

Open space (recreational uses)

Open spaces enhance the quality of the environment by purifying the air, reducing noise, affecting the local weather, in addition to other psychological benefits.⁽¹⁹⁾

Transportation:

Have many adverse effects on the residents and the buildings, such as pollution (e.g. noise and air), vibrations and accidents.

3. EGYPT AND URBAN DEVELOPMENT PROBLEMS

Egypt encompasses a million square kilometers. More than 90% of population lives on the Nile Delta and its banks. Administratively, Egypt is divided into 26 governorates. Land use is divided as follows (1993 estimate):

- | | |
|--------------------------|------------------------------|
| i. Arable land: 2% | ii. Permanent pastures: 0% |
| iii. Permanent crops: 0% | iv. Forests and woodland: 0% |
| v. Other 98% | |

3.1 Egypt Economy

At the end of the 1980s, Egypt faced problems of low productivity and poor economic management, compounded by the adverse social effects of excessive population growth, high inflation, and massive urban overcrowding. In the face of these pressures, Egypt undertook wide-ranging macroeconomic stabilization and structural reform measures in 1991. Egypt has been moving toward a more decentralized, market-oriented economy. These economic reforms and growing investment opportunities have prompted increasing foreign investment, but incoming capital has concentrated in stock market portfolio flows.

3.2 Housing activities in Egypt

Egypt, as one of the Third World countries, has been experiencing an enormous population increase, particularly in urban areas, and continuous flow of rural-urban migration creating unplanned urban change. The resulted pattern had a wide range of negative consequences such as demolishing and deteriorating the historical and monumental building with its high cultural value, which present the history of the city and on other hand are considered a cultural treasure. Generated large number of problems, associated with misuse of land and deteriorating housing conditions, resulted in addition to poverty. At the same time, there is a growing gap between the rich and those living in extreme poverty.

(19) E. Grandjean, 1976

The housing activities in Egypt can be divided generally into two main types: the governmental public sector and the private sector. The governmental sector aims primarily to the provision of housing for low-income groups. Recent governmental strategy changes by turning to market economy, shifted the attention of public-sector housing companies to high standard housing to make profits.

3.3 Housing situation in Egypt

To date, as a result of weak investment in governmental residential projects, housing problems continue to be very serious. Factors affecting the housing situation can be summarized as follows:

- i. Rapid population growth and slow economic development
- ii. Unplanned urbanization.
- iii. Absence of national spatial planning
- iv. Acute shortage of houses supply

However, the overall housing shortage is expected to increase in the near future, with the continuously persisting trends of population growth and urban drift.

3.4 Governmental action to solve housing problems

National settlements and socioeconomic development policies call for a clear and explicit spatial framework, if mounting economic, demographic and social problems were to be addressed. Much of the Nile Valley and Delta is overcrowded. Meanwhile, Cairo, Alexandria and other cities are over congested, and could not generate jobs fast enough to employ their active labor force. At present, regional plans are being drawn up for these major development areas. These include master plans for new satellite cities around Cairo, and providing infrastructure facilities in greater Cairo and Alexandria.

4. ALEXANDRIA CITY

Alexandria City is considered the 2nd important city in Egypt and its main harbor, which is located on the Mediterranean coast of Egypt, west of the Nile Delta. The bulk of Egypt's foreign trade passes through the port of Alexandria (about 80% of Egypt's shipping). It extends from east to west, as a linear city, as a result of its location between the sea coast in the north and Lake of Maryout and agricultural land in the south. It covers an area of more than 640 thousand feddans.

4.1 Alexandria Housing situation:

Housing deficit

Alexandria suffers from the shortage of housing supply in the last 30 years, as a result to immigration from rural areas to Alexandria. It is estimated that Alexandria needs 100 thousand units to cover the current shortage, and 139,500 units to face the new population growth at 2005.⁽²⁰⁾

(20) CAPMAS 1996

Present housing situation

It was estimated that about 26.75% of the total houses in Alexandria are substandard housing. This percentage increased in old districts such as “West” and “Gomrok” districts, where the percentage of substandard housing reaches about 60% in average. However, this can be attributed to the old houses prevailing there. About 29.5% of the houses in the city have acceptable housing conditions. Similarly, this percentage is higher in the old districts than in new developed ones. This means that about more than half of the houses in Alexandria are substandard with relatively deteriorating housing conditions.

4.2 Alexandria city downtown

This area consists of the old city with its Greek neighborhood, originally planned by “Dinikratis” at the time of Alexander the Greater, more than two thousand years ago. A central business district is situated at the center of this area containing most of the public buildings, the main administration centers for communal services and the biggest hospitals in the city.

Figure (4) Alexandria down town



This area also contains the public library, art museum, the university buildings, the main stadium, most of the recreation facilities, theaters and cinema, in addition to several hotels. Being a part of the old city, the downtown contains several historic elements such as Pompey's Pillar and the Katacombs the eastern harbor. The fish market and square of mosques add to the touristic value of the area. The city downtown is characterized by the presence of old housing areas surrounding the central business district and the Islamic monuments. Decrepit structures, high population densities, noise and congestion characterize these areas.

The provision of housing that comply with the proper housing standards, whatever categorization they take, is considered at present to be a must. This is mainly due to the ill-effects of the lack of such standards on human health and standard of living. These housing conditions meanwhile are greatly affected, positively or negatively, by the neighboring types and patterns of land-uses.

4.3 Importance of the city downtown

The city center is the famous area of Alexandria. It includes many historical temples in addition one of the most popular museum "Greeks Romanic Museum" in all over the world. It included the political, commercial, social and economic forces. Its urban fabric was a result of the ancient pattern, and follows the chess board grid. The rapid uncontrolled urban change present many forms of pollution, causing health hazard and deterioration for residents and visitors alike.

4.4 Urban problems in the city downtown

Major existing problems can be classified as follows:

- i. **Urban problems:** which are presented in the form of the high population density and the crowded areas. The improper urban pattern and housing types are found due to the unorganized building activities.
- ii. **The deteriorated infrastructure and roads conditions:** these problems are evident by traffic congestions, and shortage and inefficiency of infrastructure networks efficiency due to the rapid and unplanned building activities.
- iii. **Economic problems:** city downtown economic activities are affected by the deteriorated infrastructure conditions and decrease in economic actions and company activities
- iv. **Environmental problems:** these are found in overcrowded areas and due to problems resulting from the misuse of land and mixing of urban activities in improper ways. In addition, there are hazards resulting from the light industrial activities which are still functioning inside the city downtown.
- v. **Administration problems:** upgrading programs usually are ineffective due to shortage and inaccurate of information. In addition, the local authority is inefficient in controlling and supplying the city downtown services.

5. STUDY AREA: KOUM EL-DEKA AREA⁽²¹⁾

Koum El-Deka is located on El-Atareen district, and its area is about 0.2 km². This district is considered one of the oldest districts in Alexandria. Some of the historical and unique buildings are scattered in the area. Koum El-Deka has a historical and social value in Alexandria.

Recently, attention was directed to preserve this area. Consequently, developing and upgrading the area aim at controlling urban change rates and its negative impacts upon housing circumstances, and consequently human wellbeing.

(21) Dr. Dalia El-Dardiry did the field study when she was working as assistant professor of urban design in Arab Academy for Science and Technology, Faculty of Environmental Engineering, environmental architecture department

Figure (5) Koum El-Deka area, El-Atareen district, Alexandria City

Population size characterized by high population density, which is more than 23655 person/km² in 1996. The total population is about 3731 with about 4 persons/family. The final population studies indicate that the population increase is in reduction. From the main four borders, four main streets are surrounding the area. It is about 2.8 m over the sea level. The case study is located in the downtown, which has a lot of work vacancy for labor and handmade crafts. It attracts labor to come and work as well as probably live within it.

5.1 Urban land use characteristics

Rapid urban change of Alexandria created troubled living conditions for their inhabitants. There is a need therefore for a decisive and speedy intervention to control such urban change and improve the deteriorating conditions prevailing in old districts areas. The common characteristics of the study area can be concluded in the unplanned and misuse of land, the interference of various land uses disregarding these impacts on each other and the deteriorating housing conditions.

5.2 Land use pattern

The area's urban fabric was created hundred years ago in different socioeconomic, technology, political, structural, architecture and urban circumstances. High degrees of differences happened for these elements in contrast to slightly urban and architecture differences. Rapid technology such as T.V, Internet, satellite communication, economy and social changes exist.

The area suffers from the deteriorated urban pattern state of affairs. High land value in this area is due to demand for commercial and residential areas. In spite of its unique location in the city downtown, there is a lack of governmental control or consideration for its land use pattern. This could be clear for the roads and traffic. There are two types of streets, in the study area. The first type includes the main streets, which is bordering the area. This type of streets is paved and wide and they represent the main traffic accesses to area. Because they are the main accesses, they receive all forms of traffic

and vehicles coming to the area, such as trucks, private cars as well as carts. Therefore, they are characterized by being very crowded, especially during rush hours, and consequently excessively noisy. The second type of streets is the secondary streets. They are narrow unpaved streets with no pavements, leading to the main streets mentioned before. They are much shorter and without any regular patterns. Their shapes are determined by haphazard subdivision of the residential blocks. This leads to changing width of the same street, ranging between 3 and 6 meters, and sometimes sudden close ends. Car movements in such streets are very restricted, with no pass at all for large vans, such as fire brigade vans and garbage cars. Additionally, the street pattern causes a lot of traffic problems, accidents and noise in the area, particularly with its narrow and unpaved streets and the lack of any proper traffic. All this means difficult access as well as dusty and unclean environment.

Figure (6) Koum El-Deka street network



Source: filed work done by the researcher

5.3 Residential areas

The main land-use components in the study area are residential in interaction of light industrial and handmade crafts. Most housing blocks have been built since long time ago. Because of the irregular shapes of land lots, housing blocks were found to be occupying different areas and taking different forms and shapes. They just leased the rest of their blocks for 3 or 4 families, depending upon their dates of construction.

Figure (7) Koum El-Deka existing houses circumstances



During early development stages of the study area, most land owners constructed their housing units using the cheapest construction materials and methods. They were just trying to meet their needs for housing. Therefore, they constructed housing blocks of no more than three to a maximum of four floors. Yet, in recent years, and as a result of growing pressure for housing units and increasing land prices, land owners, whether constructing housing blocks for themselves or just looking for profits, began to construct high housing blocks. However, as a result of the inappropriate laying down the foundations, it was found that most newly constructed housing blocks (frame construction system) affected deficiently old ones (bearing walls method). This consequently has led to housing blocks sliding and supporting each other. The unfinished fronts of most housing blocks have led, to a great extent, to damaging the exterior of most building. This, in return, has had serious effects on the interior finishing of the interior walls. Building materials utilized in housing construction ranged between sun-dried clay-bricks, chalk stones and cement-manufactured bricks. Despite such variety, these types have no significant differences in terms of strength and resistance to environmental elements in the area.

5.4 Industries

There are a few small-scale factories located within the study area. In addition to these factories, a large number of workshops are dispersed within the residential areas. They are mainly found in the shops established in the ground floors of a large number of housing blocks. They are used in a variety of activities, which include car repairs and painting, metal works and wood-work activities. These workshops cause some nuisances such as noise, hazardous smoke and wastes, and disturbing traffic flows as a result of the occupation of street space.

5.5 Open spaces

There is no actual open space or recreational areas distributed within the case study. The absence of sports and pleasure means that children, with the availability of no spaces within their houses, having no choice but to play in the streets. There are some vacant derelict land dispersed within the study area. Such land is mainly left for speculation purposes. These areas, meanwhile, can have serious adverse impacts on nearby residents as they are used as dumping areas with no regular, if any, collection of wastes.

Figure (8) Koum El-Deka: vacant land



5.6 Commercial areas

The only form of commercial outlets are convenient shops, which are scattered within the area. These small-scale shops provide the residents with their necessary needs of

food. They also provide general services such as pharmacies, electrician and plumber shops as well selling certain particles such as building materials. In order to get their needs, residents have to go to the near by commercial areas.

5.7 Services and utilities

Health and educational services are lacking within the area. Cultural services provided in the area are only religious services, provided by mosques and churches. There is a fire and a police sub-station located on the southern boundary of the area. However, there are major constraints on the provision of their services, which include the limitation spaced by the narrow unpaved streets of the area.

There are potable water and sewage networks in the area. However, the level of the covers of sewage inspection rooms are over the street level by about 5 to 15 cm, and therefore could not allow the rain water on the streets to discharge, causing muddy streets during the winter season. Although the area is covered by the electric network, uncovered parts of the electricity wires cause dangerous conditions, especially during winter time.

6. ANALYSIS OF URBAN CIRCUMSTANCES OF THE STUDY AREA

6.1 Urban change

Urban wise, the area has changed rapidly through the past 50 years. Similar to other unplanned rapidly changing urban areas, the study area is characterized by unplanned and haphazardly distribution of land uses and problematic provision of certain services, in terms of quantity and quality. Also, the skyline of the buildings in the area varies tremendously. The private sector plays an important role in the uncontrolled urban change. In the absence of governmental control, looking for maximizing the benefit from investing in urban activities leads to adverse impact upon the urban conditions within the study area.

6.2 Land use and infrastructure problems

The study area suffers from the misuse of land and resulting severe social problems such as the increase in poverty rate and of deteriorated human development processes. The urban change occurs haphazardly by the unplanned process, causing the deterioration of the urban pattern of the study area.

Most streets are narrow, suddenly changing in width and sometimes close ended and all streets. Moreover, the area is suffering from transportation problems. Water supply, sewage, and electricity networks need to be upgraded. The haphazard use of vacant areas as waste disposal areas leads to serious health hazards.

6.3 Study area potentials

Study area potentials can be concluded as follows:

- i. Romanic architecture and building style for the building located on the border of

- the area give the area unique and attractive characteristics style to in the city.
- ii. In the inner of the study area, there are many deteriorated buildings that could be demolished and the land it self could be reuse within the master developing plan.
 - iii. Vacant areas
 - iv. Availability of basic of services and infrastructure grids
 - v. Using the historical and the monumental buildings as touristic places.

6.4 Quality of the housing environment and human wellbeing

6.4.1 Environmental housing conditions

Specific problems related to housing conditions are as follows:

Noise

Houses are found to be suffering from high levels of noise generated from a variety of sources including: traffic, children playing in the streets, passing sellers domestic noise.

Climatic Conditions

Generally most of houses constructed in the study area suffer from ventilation problems, due to the narrow and unpaved streets, the high diversity of building heights and sizes, narrow openings and ill-designed houses and orientation.

Natural Lighting

Narrow streets and different buildings heights reduced amount of natural lighting entering houses, particularly houses located in lower floors

Provision of utility services

Houses are served, but not in a proper condition and connections.

6.4.2 Housing design and building materials

Building design

Small area and improper interior design of houses led to significant decline in privacy and terrible ventilation. Additionally, large areas of land were lost because of inefficient design of houses.

Building materials

Using different construction systems, without any sound engineering grounds, caused considerable damage to the foundations of various adjacent buildings.

Privacy

Interior design of houses also showed that no consideration was given to the functions of different spaces and areas within the house.

Setting of houses

Large proportion of housing stock in the area is sub-standard, with small plot area, high population density and bad designs.

Aesthetics

Absence of finishing materials from the facades of almost all buildings, especially on the outskirts, lead to undesirable aesthetic forms, in addition to improper insulation properties.

6.5 Impact of urban change on human wellbeing

Light industries are scattered in many places. Poor location and setting of open spaces and commercial areas lead to ill conditions of the land use within the study area. Services' provision in the study area represented reactionary and remedial actions to the problems of the area. The disorganized nature of streets and building blocks means higher cost for the provision of services and infrastructure. At the same time, services and infrastructure capacities were designed for present time needs. Undergoing rapid change, the area will suffer from serious future provision problems. Health, education, cultural, police and fire brigade services are missing in the area.

6.5.1 Urban change impacts on environmental problems

Environmental problems, such as soil, water, air and aesthetic pollution are present and cause adverse impacts for housing conditions within the residential areas. Reciprocal adverse impacts are the result of the uncontrolled urban change upon the agricultural lands and the mixed uses of land services in the city activities. The improper mixed land use is a consequence of the lack of authority control on the land use.

6.5.2 Urban changing impacts upon housing

Generally, due to the above problems and poor urban and houses design, housing conditions are deteriorated. A large proportion of the housing is sub-standard, with small plot areas, high population density and unhealthy designs. In addition, one of the major problems is the lack of maintenance.

6.5.3 Urban changing impacts upon urban pattern

The unplanned urban pattern presents narrow, unpaved and closed-end streets, which generate a wide range of problems such as

- i. Dusty environment, leading in long term to increase the respiratory diseases among the residents.
- ii. Low security level due to the uneasy access for security forces, fire-brigade and ambulance.
- iii. Disturbed flow of traffic causing noise and high rates of accidents.

6.5.4 Social and poverty problems

Residents inside these deteriorated areas feel disappointed for their problems due to their poverty status and deprived housing conditions, in addition to the poor circumstances in their human wellbeing, in the times of telecommunication and internet technology age.

6.6 The environmental problems and human development effects of conflict

It should be noted that the adverse impacts of the elements of the area appears to be exceeding beneficial effects, which consequently, reflects the failure of the urban form of the area to achieve developing activities and upgrading residential areas in the area. Based on the above analysis, the degree of the environmental problems types are summarized as follows.

- i- *Air, noise and aesthetic pollution*: characterized by an over limit, and has hazardous effects on surrounding areas.
- ii- *Water and ground pollution*: characterized by no severe dangerous effects or health hazards, and could be controlled

In this way, an appropriate decision to be taken is to make the maximum use out of the positive opportunities available, and to avoid the negative aspects which constitutes a threat to the study area.

7. MECHANISMS FOR USING URBAN CHANGE ACTIVITIES IN DEVELOPING THE STUDY AREA

Planning and design concepts within study area have to take new trends. These highlight the cooperation between local residences, private sector and governmental sector in the developing projects. This cooperation will not only be directed to building developing, but also for developing infrastructure and services facilities. Businessmen, investors, private companies, governmental companies, residents and the governmental authority must cooperate through a local council that would be responsible for developing phases. A local committee needs to be created within a flexible strategy in cooperation with local urban planning authority.

This committee will study how to put attraction point for investment strategy. Its aim will be how to control developing projects in all the area levels, for example constructing new buildings, investment projects, tourism activities, .etc. Its interest will not only go to economic benefits for investors, but also for develop and upgrade human wellbeing and making a balance between costs and benefits. This committee will take part in organizing the best use and maximizing benefit from developing projects.

Its direct connects should deal with the followings levels:

- i. The local community of the study area
- ii. The investors level
- iii. The urban designers and planners
- iv. The governmental authority level.

7.1 The main concept for improving the urban design of Koum El-Deka:

Four main elements can be highlighted to improve Koum El-Deka as follows:

- i. Encouraging public participation in improving the area.
- ii. Upgrade the historical and monumental features for the area, especially for the house of "Saied Darwish" one of the famous artists in Egypt. His house could be an open museum and also, develop the vacant area surrounding the building, creating a nice outdoor landscape environment

- iii. Redesign the urban fabric according to vacant areas and buildings that will be demolished, respecting the old and current architectural styles of the outer buildings Fig. 18.
- iv. Putting a strategy for maintaining buildings

Figure (9) Concept of improving the vacant area



7.2 Planning methods in developing Koum El-Deka

Theoretically, there are different methods for improving the cities urban planning in general and the residential areas in particular. Some of these methods are illustrated as follows:

- | | |
|--|--|
| i. Reaction and reform ⁽²²⁾ | ii. Preservation methods |
| iii. Restoration method: | iv. Conservation method: |
| v. Construction and reconstruction: | vi. Rehabilitation and renewal method: |
| vii. Upgrading method: ⁽²³⁾ | viii. Clearance and replacement: |
| ix. Decentralization method: | |

Among these planning methods, previously mentioned, the upgrading method is most appropriate, which could be applied to a certain part of Koum El-Deka area. Achieving

(22) Clara Greed, Introduction to town planning, second edition, Longman, 1996, P. 80.

(23) Ibid, p.106-134.

the perfect performance and the complete convincing of this choice, implementation must be through the cooperation between the local authority departments, in addition to ensure of the participation between the governmental and the non-governmental organizations.

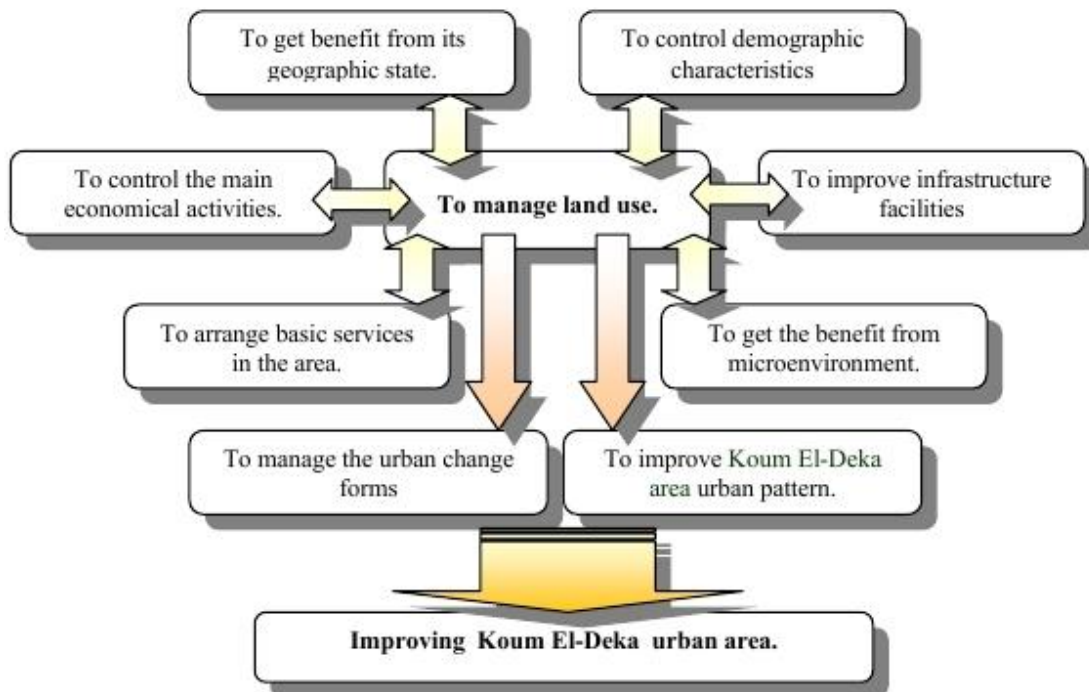
7.3 Criteria of developing Koum El-Deka area

Achieving human wellbeing and improving quality of life and standard of living will be achieved through the following:

- i. Controlling demographic characteristics
- ii. Controlling the main economic activities and to encourage the use of modern economic methods such as Build, Operate and Transfer "B.O.T."
- iii. Developing current infrastructure networks
- iv. Redistributing basic services adequately and according to the area's carrying capacity.
- v. Protecting the environment and making use of the environmental characteristics and using the renewable energy.
- vi. Improving urban characteristics and urban pattern by controlling urban change

Fig. 10

Figure (10) Procedures for improving Koum El-Deka areas



- vii. Managing land uses to mitigate negative impacts from mix land uses.
- viii. Providing the residents with comfortable, safe, clean, calm residential areas, improving deteriorated areas and developing housing conditions by presenting proper construction methods and building materials.
- ix. Supplying the study area with a healthy environment and controlling light industrial activities and pollution sources. Offering "Gift and finance" for the

developing projects, which do not deteriorate the environment. Controlling the environmental impacts of urban change would be improved through controlling form and location of the air, water, noise and ground pollution sources.

- x. Presenting a framework of the fundamental sustainable development strategy, whether long or short-term strategy.

8. RESULTS AND RECOMMENDATIONS

Dealing with the city downtown has to take into consideration a historical approach. Urban planners and developers must consider the international changes in the economic systems to get the idea of presenting new trends of developing projects. The cooperation between the residents themselves (public participation) and motivating economic capital in developing project are essential to the success of projects. Development projects must not only take into consideration pure, short-term direct benefits, but it should care about long-term projects. Projects, that are concerned with developing the human wellbeing, reflect their benefit upon the investors in indirect ways. General recommendations can be pointed as guidelines as follows:

- i. Developing socioeconomic state is important factor in developing human wellbeing
- ii. More attention should be given to visual impacts using street furniture.
- iii. Using modern technology and information technology in infrastructure networks and connection, which is very important in raising technical efficiency of the systems.
- iv. Building a data base and the use of the geographic information system (G.I.S.) is important in designing suitable urban design for the area.
- v. Using of private sector and investors in joint venture projects with the government should be encouraged in developing the study area.

The following ideas discuss an urban development vision to improve deteriorating areas. These aim to determine the best developing way suitable to the existing circumstances in Egypt.

- i. *Privatization* is one of major factor affecting the urban development in Egypt. In addition to the increasing trend of depending on free international markets.
- ii. *Public participation* is valuable to enhance the current situation in short time.
- iii. *Private sector* and investors have the power to affect development in general, and urban development in particular.
- iv. *Limits* must be put to separate public benefit and personal benefit.
- v. *Monitoring* the benefit must be done to evaluate its achievement of goals.
- vi. *Administration systems* must have control on all powers that affect the city local benefit in general and the example of the study area in particular.
- vii. *Changing the development concept* and the administration system are essential. No change in the administration system, leads to no change in facing local economic changes, causing failure of urban development of slum areas in general.²⁴
- viii. *An effective zoning policy* needs to be formulated and adopted to minimize the problems caused by mixed land uses.

(24) El-Dardiry, Dalia, unpublished PhD, 2002

- ix. *A master plan* for Koum El-Deka needs to be developed to deal with scattered vacant areas and the land uses, to select suitable sites for services provision, especially services lacked in the area, such as schools and hospitals
- x. *Raising the awareness* of residents and owners of housing blocks about benefits is needed.
- xi. *Encouraging the private sector* in overcoming the large deficiency in the communication network on different levels.

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