

Greater Cairo Urban Development Strategy



Part I: Future Vision and Strategic Directions

2012

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القاهرة
Cairo Future Vision

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List of Abbreviations:

CAPMAS	Central Agency for Public Mobilization and Statistics
EEAA	Egyptian Environmental Affairs Agency
EIMP	Environmental Information Monitoring Program
GC	Greater Cairo
GIS	Global Information Systems
GIZ	German Agency for International Cooperation
GNP	Gross National Product
GOPP	General Organization for Physical Planning
GWP	Gross World Product
IDSC	Information and Decision Support Center
ITDA	Internal Trade Development Authority
JICA	Japan International Cooperation Agency
MHUC	Ministry of Housing, Utilities, and Urban Communities
NTRA	National Telecommunications Regulatory Authority
NUCA	New Urban Communities Authority
UN-Habitat	United Nations Human Settlements Programme
UNDP	United Nations Development Programme
USF	Universal Service Fund

Greater Cairo (GC) Urban Development Strategy

Part I: Future Vision and Strategic Directions

Aspirations of GC residents

Recognizing GC's importance and the vital role it plays in Egypt and the whole Arab and African region, the GOPP has formulated the future vision of the GC as a first step to prepare the GC strategic plan. A number of international and local experts specializing in various fields have participated in the development of the GC future vision.

This report presents the proposed vision and specifies the GC development policies and projects required to facilitate the preparation of the GC urban development strategy.

The study area will cover the urban mass of the Cairo Governorate and some areas of the Governorates of Giza and Qalyubia, in addition to some of new urban communities (6th of October, Sheikh Zayed, the 15th of May, New Cairo, Obour, Shorouk and Badr).

The population's demands are the main object that any development vision seeks to achieve; therefore, the needs of the GC residents have been studied in order to determine the main pillars and directions of the proposed vision.

Consequently, a first survey was conducted in 2008 to recognize the needs of GC residents and identify their daily problems they face and their priorities to solve such problems.

To ensure the participation of a broad sector of the society, various surveys were conducted in different areas of GC.

According to the findings of these surveys, the key needs can be summed up in the following points:

- Achieving good living conditions for all segments of residents;

- Achieving traffic fluidity and public transportation suitable for all income segments;

- Achieving traffic fluidity and public transportation suitable for all income segments; and providing services;

- Providing services, housing and job opportunities for all segments of residents;

- Providing safe, clean, unpolluted and uncrowded environment with green areas; and

- Achieving prosperity of cultural and tourist activities.

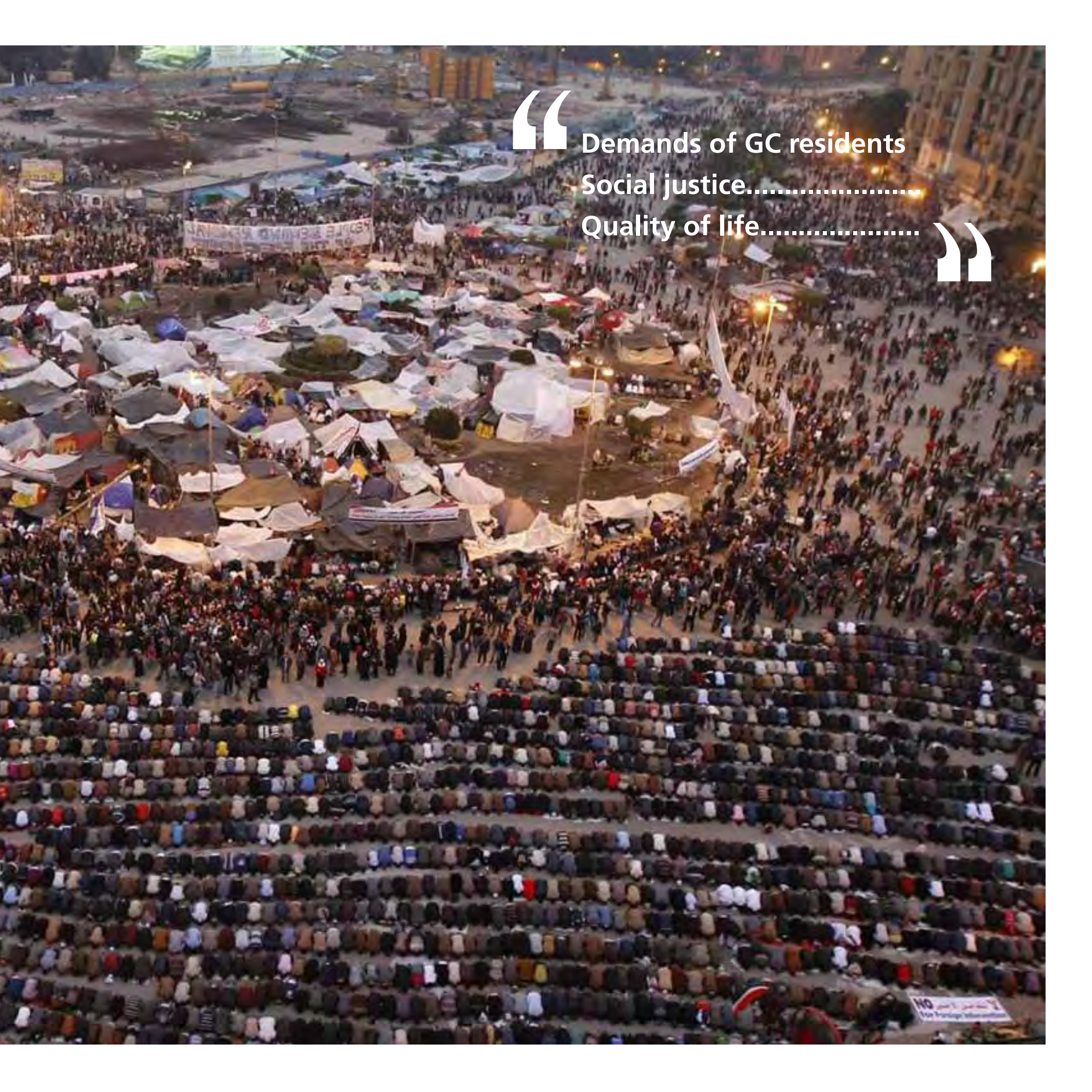
These needs have been categorized in two main components:

1- Social justice: For the purpose of this report, "social justice" refers to fair and balanced distribution of services, housing and job opportunities among different segments of the society.

2- Quality of life: The term "Quality of Life" is used to evaluate a number of factors affecting the standard of living of both individuals and societies. This term is also used in a wide range of contexts, including all areas of development, income, job opportunities, urban environment, physical and mental health, education, entertainment, social affiliation and all other elements affecting an individual's quality of life.

Thus, the quality of life means the quality of urban, economic, social and environmental condition. It also denotes the quality of health, educational and cultural services for all groups of the society as well as the quality of transportation and the availability of public spaces and green areas.





“

Demands of GC residents
Social justice.....
Quality of life.....

”

NO
لا تقبلوا
for Foreign Investment

“

The proposed vision, which provides a picture for a better future, is seen as a goal and a national action charter adopted by the state, with individuals and civil society organizations interacting with it and various segments of the society committing to it.

”





Introduction by the General Organization for Physical Planning (GOPP)

Sustainable urban development is one of the key pillars to formulate the GC future vision. Such vision aims at turning the GC into a sustainable environment capable of achieving economic competitiveness.

To ensure achieving the balance between the cultural, economic and political role, both regionally and internationally, on one hand, and providing a better living environment for the residents on the other hand, the following considerations have been taken into account:

- Creating the appropriate environment to achieve institutional transformations required to ensure the provision of services and infrastructure in all areas of the GC;
- Increasing the economic competitiveness of the GC and relying on knowledge economy by improving the infrastructure efficiency and effectiveness;
- Benefiting from the comparative advantages of the Capital City and achieving integration between the different settlements forming the GC;
- Striving to create an environmentally friendly production systems and consumption patterns; and
- Reducing air pollution and providing successful and integrated solid waste management system.

One of the key foundations upon which the vision was built is the redistribution of the residents in the GC to achieve balance through the following steps:

- Addressing unsafe and unplanned areas;
- Constructing new roads to connect the already-established residential areas with new residential areas in the GC;
- Protecting and preserving planned areas through ensuring adherence to building requirements as well as setting building conditions for new areas;
- Creating new opportunities for development and encouraging the attraction of more investments in new urban communities; and
- Raising the efficiency of municipal employees and following the latest methodologies to manage urban areas.

The GOPP would like to extend thanks to the UN-Habitat and the UNDP for their efforts and the technical support they provided to ensure meeting international standards. Particular thanks are also extended to the Egyptian Cabinet Information and Decision Support Center (IDSC) and all other development partners.

This vision is open for community dialogue by different segments of the society and specialized experts with the objective of reaching the final form that really expresses the demands of the residents and the society, in preparation for the start of the next stage, which is the preparation of the GC strategic plan.

Vision

Social Justice

Economic Competitiveness

Environmental Friendliness

Vision Pillars

- 1- Improving residents' living conditions and quality of life;
- 2- Providing competitive environment for knowledge-based economy;
- 3- Improving environmental conditions and achieving sustainability;
- 4- Developing the infrastructure of the GC transportation network;
- 5- Developing the new urban communities as diverse and attractive centers;
- 6- Creating an environment suitable for tourist prosperity and preserving historical and archaeological areas;
- 7- Reviving GC central area; and
- 8- Providing an effective governance system for the management of development projects.

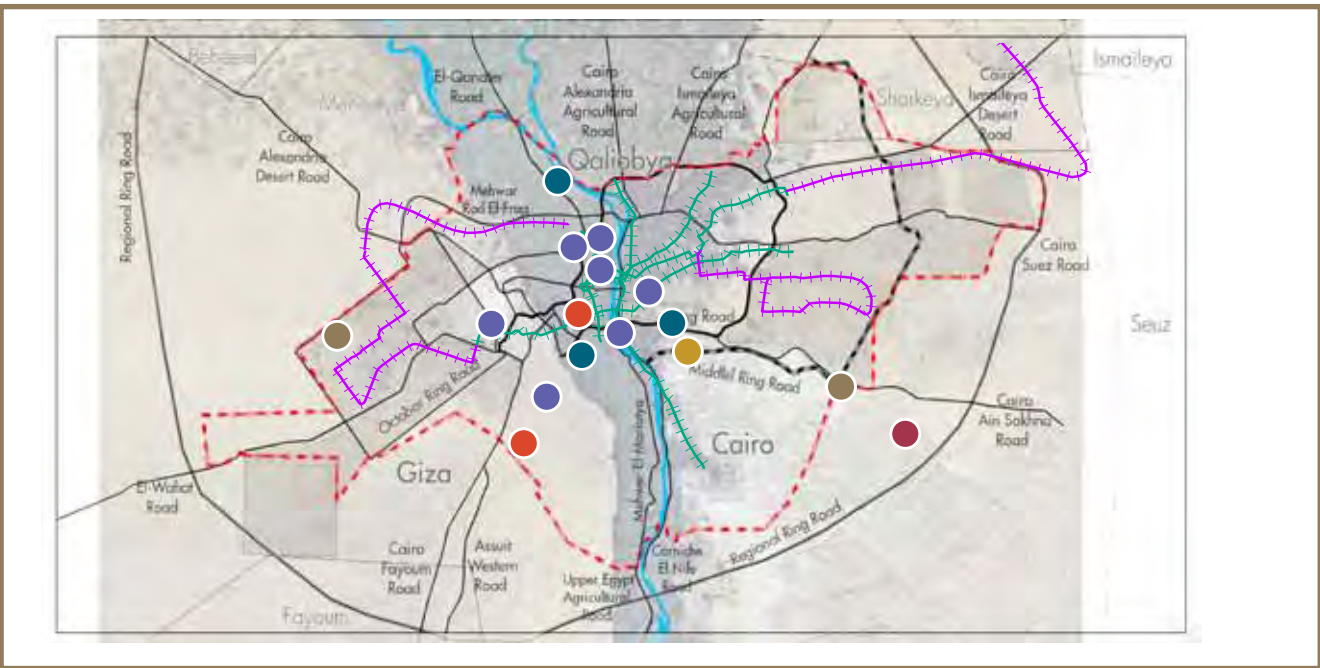
General Strategies

- GC economic development strategy
- GC social and urban development strategy

Three Sectoral Programs

- Development of unplanned areas
- Turning the GC into a cultural beacon for Africa and the Middle East
- Developing the GC as a global tourist destination

Priority projects for achieving the eight pillars of the vision



THE STEADY GROWTH OF THE GC RESIDENTS NECESSITATES INTERVENTIONS TO DEVELOP A LONG-TERM VISION FOR THE CAPITAL CITY OF EGYPT.

THE GC FUTURE VISION RELIES ON THREE MAIN PROGRAMS INVOLVING EIGHT BASIC PILLARS. TO ENSURE THE POSSIBILITY OF IMPLEMENTATION, SECTORAL DEVELOPMENT STRATEGIES AND GUIDELINES FOR MANAGING URBAN DEVELOPMENT PROJECTS HAVE BEEN DETERMINED. THESE EFFORTS RESULTED IN DEVELOPING THESE THREE PROGRAMS THAT EFFECTIVELY CONTRIBUTE TO ACHIEVING THE VISION. THIS DOCUMENT IS OPEN FOR BROAD COMMUNITY DIALOGUE TO DISCUSS PROJECTS THAT COULD BE INCLUDED IN THESE PROGRAMS AND TO DETERMINE HIGH PRIORITY LEADING PROJECTS TO BE IMPLEMENTED.

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The Capital at a Crossroad

The GC⁽¹⁾ is considered to be the biggest and most influential urban area in the Middle East and the African continent. It has a rich history that is based on the cultural and commercial exchange with other countries of the region and the entire world, which makes it a historical bridge connecting the East and the West.

The GC is the beating heart of Egypt, with approximately 19.5% of the country's total population living within its borders. Its economic output represents 31% of the Egyptian GNP. It is home to the headquarters of government ministries, institutions, state-owned companies, the media and international and regional organizations.

The GC suffers from many issues, with high population density, traffic congestions, continuous increase of unplanned and unsafe areas, high air pollution rates and other environmental problems as well as social and economic issues coming on top of the list.

Given the indicators showing the expected increase in the GC residents and the resulting increase in population density and deterioration of living conditions, steps have been taken on the road towards finding solutions for these problems through reusing the GC available development possibilities to restore its international standing.

This part of the report addresses the approach and the steps of preparing the GC strategic vision, in light of its position on the map of global cities and in the framework of the desired goals and the scope of work for achieving this vision.

(1) The GC constitutes of the urban mass of Cairo Governorate and parts of the Governorates of Giza and Qalyubia and includes some new urban communities (namely, the 6th of October, Sheikh Zayed, the 15th of May, New Cairo, Obour, Shorouk and Badr).





■ General Framework

- Today's world is witnessing rapid and decisive shifts, as globalization and economic growth in addition to the growing environmental awareness contribute to creating an environment suitable for the development process in Africa and the Middle East, which will certainly affect the GC during the coming few decades.
- To keep up with these global shifts, the development vision should be commensurate with the size of the many challenges facing the GC due to the increasing competitiveness in the region as well as the international pressure to meet environmental protection standards.
- The opportunities for the GC residents lie in relying on the available possibilities - driven by the force of economic growth. Therefore, they need to take advantage of these opportunities for them to have a better future.

Over the last two decades, the globalization phenomenon has formed the main framework of the global economy. The liberalization of international trade, the flow of direct foreign investments, the scientific and technological progress and the growing role of international companies are the key pillars of the global economic environment. The GC has large constituents that make it qualified to achieve a high rank on the scale of power and influence distribution worldwide, which consequently leads to raising the citizens' standard of living.

Egypt and the Necessity of Globalization

Because of the global capital flows, the developing countries witness a huge surge in investments. This specifically applies to countries like China, India, the Asian Tigers and some economically prosperous countries in Africa. It has been found out that 70% of the current global growth comes

from developing countries, with new trade patterns emerging.

Over the past few years, the traffic in the Suez Canal showed a notable increase in the number of ships heading from north to south through the Canal, while the number of ships heading from south to north decreased due to the economic problems facing consumers in Europe and North America. This trade pattern is increasing due to the increase in educated labor force coming from developing countries. Developing countries are expected to produce 600 million college graduates during the period from 2010 to 2015, which is twice the number expected from the universities of Europe and North America (300 million graduates).

In recent years, Egypt was able to attract a huge amount of direct foreign investments. It was also able to beat the odds and increase its exports, as the

“70% of the global growth comes from developing countries”

Egyptian companies have become more qualified and more willing to compete globally.

Failing to continue the efforts to create an environment attractive for business and knowledge projects will undoubtedly lead to a gradual erosion of Egypt's assets and economic constituents. Moreover, it will result in the migration of Egypt's highly skilled and talented labor force and will have a negative effect on the availability of job opportunities as well as the economic growth and the community development.

Progress of Africa and the Middle East

Despite the fact that the African continent is experiencing a new wave of growth and although it represents 20% of the earth's surface and 15% of the world population, its participation to the gross world product (GWP) is as low as 4%. However, many promising opportunities are looming on the horizon. Africa as a whole has managed to continue to grow during the global recession period, as Africa's GNP, during that period, grew by 2% where the GNP of Europe and the United States witnessed massive regression.

It was found out that the growth in Africa is supported by a group of countries known as "The African Lions", which includes Egypt, South Africa, Morocco, Algeria, Nigeria, Libya, Botswana, Mauritius and Tunisia. In 2008, the per capita GNP in these countries exceeded the per capita GNP in countries with huge economies like Brazil, Russia, India and China. The African Lions are progressing steadily towards improving their global position in the context of facilitating the establishment of projects and attracting a growing rate of high-level foreign investments.

On the other hand, the Middle Eastern states, especially the Gulf States, are adopting approaches to achieve economic growth, by gradually turning away from depending on oil in their economy. In fact, these states are strong competitors and distinctive partners in the field of business.

This positive environment gives the GC a favorable strategic opportunity because of its special geographic location as a bridge that connects Africa with the Middle East and Europe.

Figure 1: GC Location on the Global Map



Egypt has founded strong relationships with Europe based on Euro-Mediterranean partnership. The EU is considered as Egypt's largest trading partner, since it absorbs 42% of Egypt's exports and provides 37% of Egypt's imports, with the balance of trade in favor of the EU. The volume

of trade between the EU and Egypt has increased by more than 5% in the last 5 years with focus on the fields of energy, textiles and clothes. The EU is the largest direct foreign investor in Egypt with investments ranging between 30 and 40% of the total investments.

Attention to Environmental Issues

The environmental issues are among the most significant issues worldwide, as the global climate change is becoming a remarkable phenomenon. While much of the blame and responsibility could be placed on the developed countries that produce high rates of carbon emissions, the developing countries, including Egypt, should play their role in addressing this problem.

Egypt is particularly vulnerable to climate change, as the increase in temperature causes an increase in drought rates, which will put more pressure on the food supply and the economy of Egypt in general, and the GC in particular.

Moreover, the GC will have to address its special environmental issues, such as air pollution, solid waste management and the increased risk of water scarcity, since these issues negatively affect the GC residents's standard of living as well as the global standing of the GC.

Most countries of the world have put the environmental concerns on the top of their political agendas, as delaying the intervention to address environmental issues until securing the required growth would be an irresponsible decision. In fact, environmental awareness represents a basic requirement for achieving sustainable growth, and will reflect on the GC urban development strategy.

Defining GC Position on the Global Map

- The GC is distinguished for its long ancient history and plays an influential role in the world. It is also home to main headquarters of some international organizations and a stage for the most important global events.
- The GC current urban issues constitute an increasing threat for its standing, especially under the increasing competitiveness in the Middle East to attract the global attention.

Many indicators show that the GC does not have the international standing befitting its potentials. This was reflected in the report of the Global City Index 2010. The GC occupied the 43rd position on the global city list; much lower than its regional competitor, the City of Dubai, which came in the 27th position. That was due to the high congestion and pollution rates in Cairo, in addition to its inability to attract the international attention to host global conferences and events.

Following the footsteps of other cities in the Arab world, the GC is adopting ambitious development plans to protect its position as a leader in the Middle East and North Africa Region and its status among the countries of the world.

International and regional organizations and their headquarters in the GC

- The Arab League and two of its institutes (the Institute of Arab Research and Studies (IARS) and the Institute of Arabic Manuscripts)
- UNESCO Regional Bureau for Sciences in the Arab States
- World Health Organization (WHO) - Regional Office for the Eastern Mediterranean
- World Aerospace Education Organization (WAEEO)
- UNICEF Regional Office for Maternal and Child Health
- Regional Office of the United Nations Human Settlements Programme (UN-Habitat)

GC in the Classification of Global Cities

Academic institutions, world newspapers and advisory bodies publish regular classifications of big cities. These classifications are used by international organizations as inputs to support their selection of locations with investment potential and to

assess the quality of life, for foreign managers. Occupying a distinctive position and ranking high in these classifications—especially when compared to regional competition—are two key factors to achieve growth in any global city.

The GC still ranks low in the standard of living index (as shown in Table 1) due to the deterioration in the levels of education and healthcare. However, as far as the economic and political influence is concerned, the GC ranks higher (as shown in Tables 2 and 3).

Table 1: Standard of Living Index

City	Overall Grade	Stability	Healthcare	Culture	Education	Infrastructure
Vancouver	1	95	100	100	100	96.4
Vienna	2	95	100	96.5	100	100
Melbourne	3	95	100	95.1	100	100
Toronto	4	100	100	97.2	100	89.3
Perth	5	95	100	91.4	100	100
Istanbul	110	55	50	69.7	58.3	67.9
Casablanca	111	65	50	69.4	58.3	60.7
Damascus	113	70	54.2	54.2	38	55.4
Cairo	114	65	50	60.2	58.3	57.1
Jeddah	116	70	66.7	29.9	58.3	71.4

Source: Standard of Living Index in Global Cities 2010

Table 2: Global Cities Classification Index

Rank	City
1	New York
2	London
3	Tokyo
4	Paris
5	Hong Kong
15	Beijing
27	Dubai
41	Istanbul
43	Cairo

Source: Global City Index 2010

Table 3: Global Urban Development Competitiveness Index

The study has evaluated 500 cities in terms of their ability to attract and use resources to achieve profits, through measuring factors like income, economic growth, innovation and creating job opportunities.

Rank	City	Country	Points
1	New York	USA	1.000
2	London	UK	0.944
3	Tokyo	Japan	0.790
4	Paris	France	0.759
5	Washington	USA	0.696
39	Dubai	UAE	0.492
136	Istanbul	Turkey	0.355
214	Delhi	India	0.274
286	Cairo	Egypt	0.212

Source: Global Urban Competitiveness Report “GUCR” 2008

Primary National Strategic Plan for Urban Development of Egypt 2052

- The plan aims at accommodating the population increase within the next 40 years and achieving population balance in line with the capacity of each region, with the objective of achieving social justice, decreasing unequal distribution of resources among different regions, providing job opportunities in the proposed areas of development and achieving quality of life.

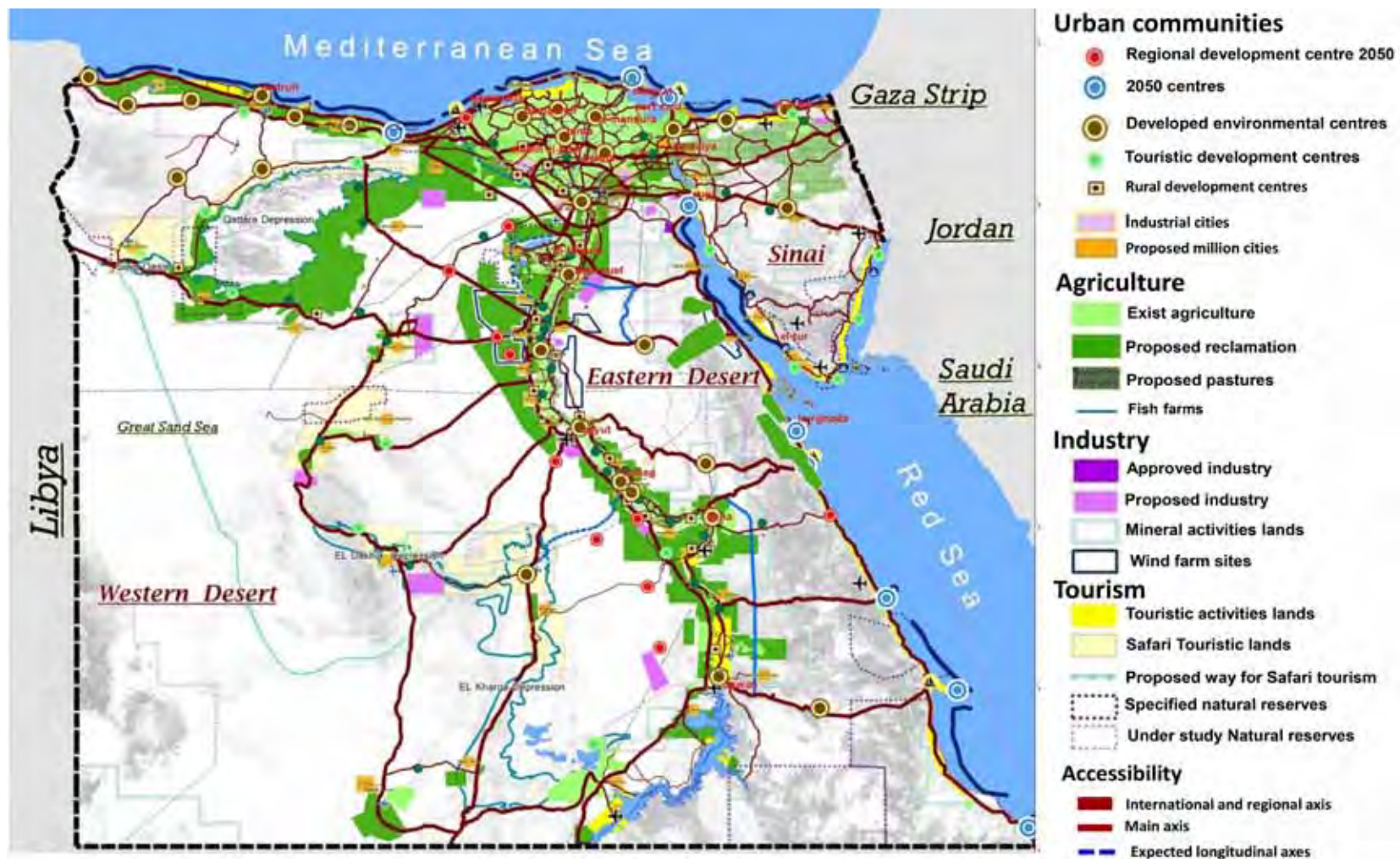
Key aspects of the National Plan of Egypt 2052

- Adding about 12 million feddans to the inhabited area so that it becomes 11% of the total area of the Republic;
- Relying on untraditional resources to meet the future need of population and economic activities;
- Providing 29 million new job opportunities;
- The total estimated investments required to provide job opportunities are 3 trillion Egyptian pounds divided into two stages:

1. First stage until 2027: The average annual investments are 60 billion EGP.
2. Second stage (2027-2052): The average annual investments are 90 billion EGP.

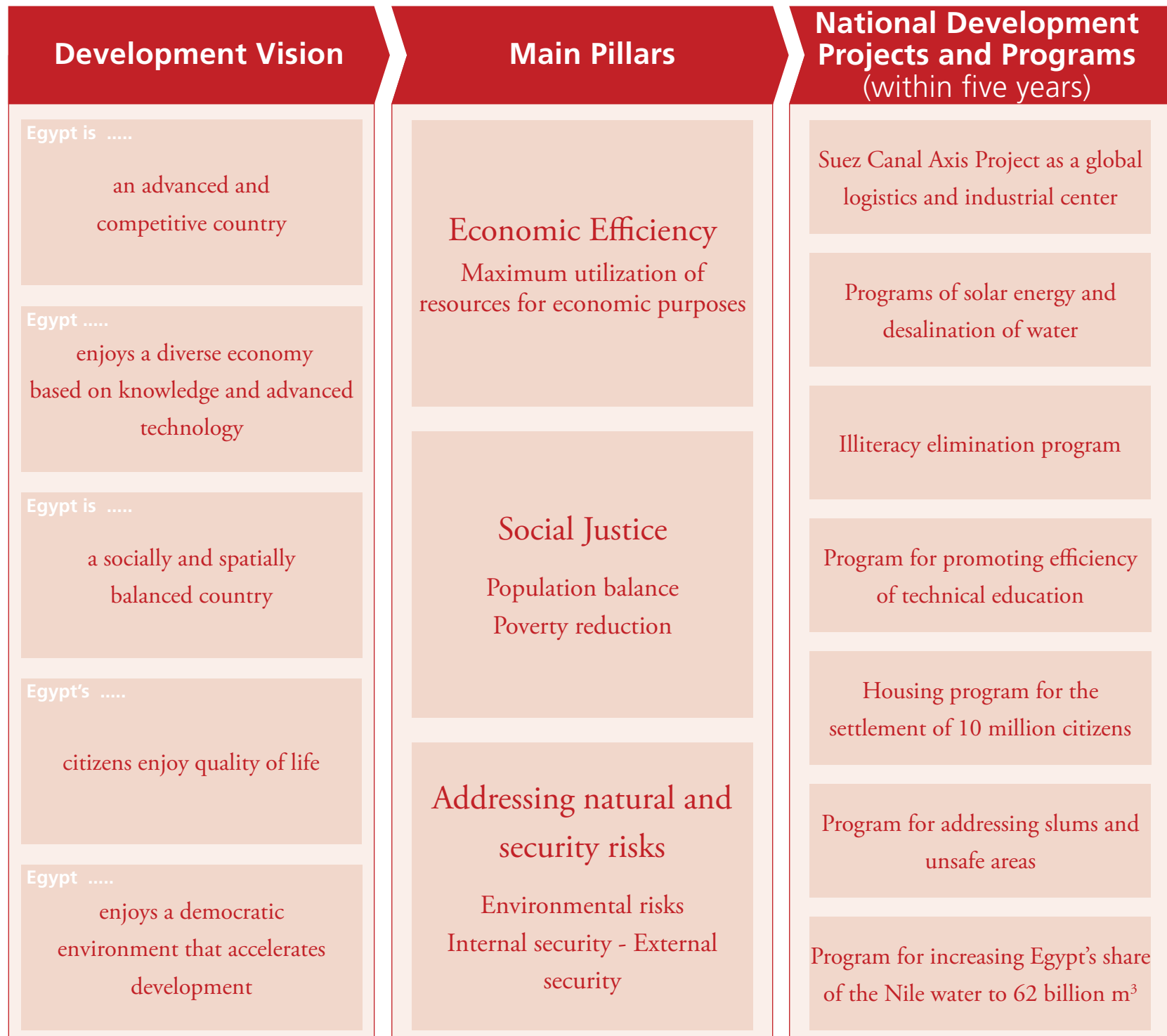
“ By 2052, the inhabited area of Egypt will jump to 11% instead of 6% in 2012 ”

Figure 2: Egypt's National Plan 2052



Source: GOPP

Development Vision of Egypt's National Plan 2052:



Current Situation of Egypt 2012 and Main Development Challenges

Current Situation of Egypt 2012

Population:	83 million people
Job Opportunities:	23 million job opportunities
Area:	1 million km ²
Inhabited Area:	50 thousand km ²

Main Development Challenges

Population Challenges

- Poverty (22% of the population are below the poverty line)
Human Development Report2010
- Illiteracy (29,6% of the total population)
Human Development Report2010
- Unemployment (10% of the total labor force)
Central Agency for Public Mobilization and Statistics(CAPMAS)
- Social disparities among different regions in income, standard of living and services
- Population doubling within the next 40 years.

Economic challenges

- Scarcity of exhaustible natural resources such as groundwater, oil and gas.

Spatial challenges

- Population concentration in 5.7% of the total area
- Urban sprawl and erosion of agricultural lands (13,000 feddans annually between 1984 and 2007).
- Extent of land suitability for development

Figure 3: Current Situation of Egypt 2011



Source: GOPP

“ Population focus in Delta, Nile Valley and adjacent areas leads to a density of 7.2 persons/ feddan, with 98% of the total population of Egypt living on 4.6% only of the country’s total area. ”

Proposed borders for the division of the Republic into new developmental regions

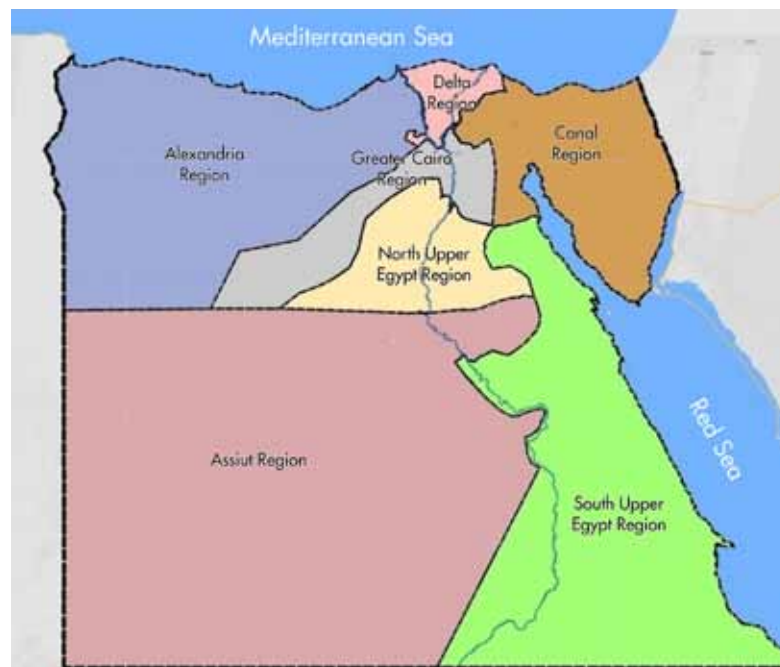
To enforce the principle of decentralization in the management and implementation of large development projects and to achieve development balance all over the Republic, it was proposed to re-divide the country into new development regions, with the objective of turning from sectoral development into comprehensive development. This can be achieved through gradual implementation of the proposed development projects, according to their level of priority, to achieve integration among different regions and governorates of the country. Investments will be directed in the optimal manner towards supporting the development plans on the medium and long term. The vision has relied on a set of criteria in dividing these new development regions, as follows:

The criteria used for the division of the new developmental regions

1. Defining clear development activities for each region that achieve a competitive advantage for that region.
2. Diversity of economic resources in each region.
3. Availability of major and national projects in each region.
4. Availability of communication elements on the national and international levels (airports - seaports).
5. Availability of extensions in the desert areas.
6. Creating direct access for the region to a seafront as possible.

“ A Proposal is made to increase the regions of Egypt from 7 to 10 new developmental regions by 2052 ”

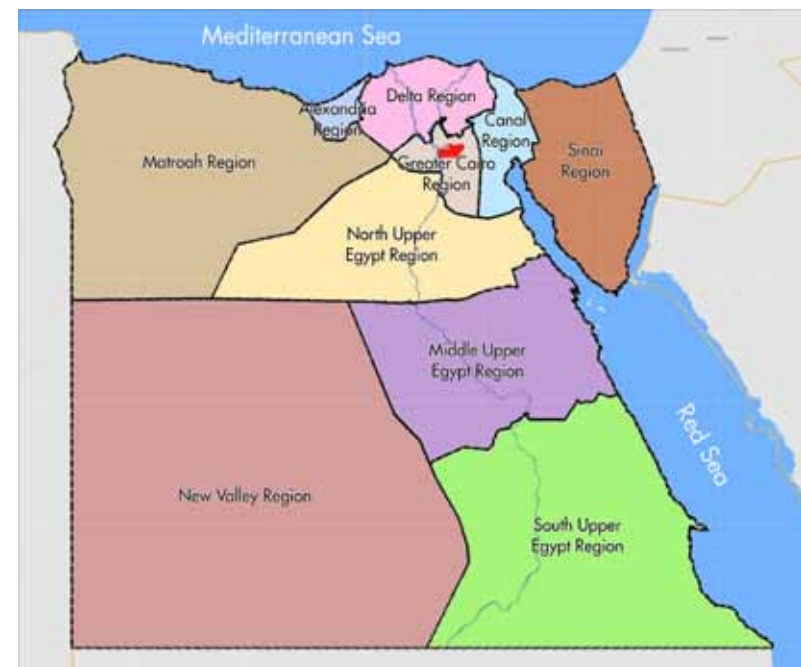
Figure 4: Division of Egypt Regions 2012



Source: GOPP

**Current situation
7 Regions**

Figure 5: Division of Egypt Regions 2052



**Proposed Situation:
10 Regions**

This new division has many justifications, the most significant of which are related to the poor efficiency of the geographic division, which led to unbalanced distribution of natural resources and wealth among the seven regions, which consequently resulted in the following:

- Non-availability of a desert developable hinterland in the north and central governorates of Upper Egypt.
- The Red Sea Governorate having almost all the sea fronts of the Red Sea as well as the biggest part of the Suez Gulf, the matter which led to the slow growth of this promising area.
- Unbalance between the areas of the current regions and the population distribution (New Valley Governorate- Red Sea Governorate- Matrouh Governorate).
- Lack of development centers and poles in a number of regions (Assiut- Matrouh).

Consequently, it was proposed to divide the Republic into ten new development regions, instead of the current seven, by adding three new regions, namely Matrouh Region, Central Upper Egypt Region and the New Valley Region. Such division will take into consideration the current borders of the governorates and the required adjustments to such borders to link with the criteria of the division of Egypt's new development regions.

Based on the above and in enforcement of Egypt's National Plan 2052 a development role was proposed for each region as shown in Table 4. The proposed division and distribution of roles will help redraw the population map throughout the Republic and will lead to rarefaction of the population concentration in the Delta, the Nile Valley and adjacent areas as shown in Figure 6. Such steps will be taken by establishing new development centers and poles capable of attracting the population and decreasing pressure and overload on the regions with high centralization of activities and services (such as the GC Region). The GC proposed development role in enforcement of Egypt's National Plan 2052 is presented in the following sections..

Table 4: Number of population and main activities proposed in the new regions 2052

Region	Number of Population in 2052 (in million people)	Main activities proposed for each region
GC	33.5	- The Capital area that represents the center of governance and the center for all administrative services and institutions - Other governorates of the Region representing the urban expansion and having the competitive investment activities on the national and international level
Delta	55.1	An agricultural industrial region that competes on the local and regional levels
Alexandria	7.4	A logistic, industrial and agricultural region of developed structure
Matrouh	11.5	An integrated development region that accommodates the biggest possible number of future population increase, and relies on new energy and desalination of sea water
Suez Canal	4.4	A region that represents an international center for logistic services
Sinai	4.5	A border region of strategic and security importance with economy based on tourism, industry and agriculture
Northern Upper Egypt	22.3	A region for agricultural industries able to export medicinal plants and to generate new and renewable energy
Central Upper Egypt	19.2	An agricultural, industrial and touristic region and a center for new energy generation and sea water desalination
Southern Upper Egypt	4.6	A touristic and mining-industrial region and a center for new energy generation and sea water desalination
New Valley	0.4	A tourist and environmental region and a center for generating new and renewable energy

Source: GOPP - Egypt's National Plan 2052

“ In enforcement of decentralization principle and to achieve balance in comprehensive development processes in Egypt, the Republic has been re-divided into new regions that integrate with each other through the development roles proposed for each region. ”

GC 2052 “Vision in the Framework of Egypt’s National Plan”

According to Egypt's National Plan 2052 (still under study), the GC 2052 is proposed to include the Capital area and the governance center as well as public institutions and administrative services (Cairo Governorate). As for other governorates of the Region (namely Giza, Qalyubia, the 10th of Ramadan and Helwan), they will represent the urban expansion and include the investment and service activities achieving national and international competitiveness.

Integration among the proposed development regions of Egypt is the drive towards the desired progress. Such integration is to be achieved through the distribution of proposed development roles over the new regions in the Republic.

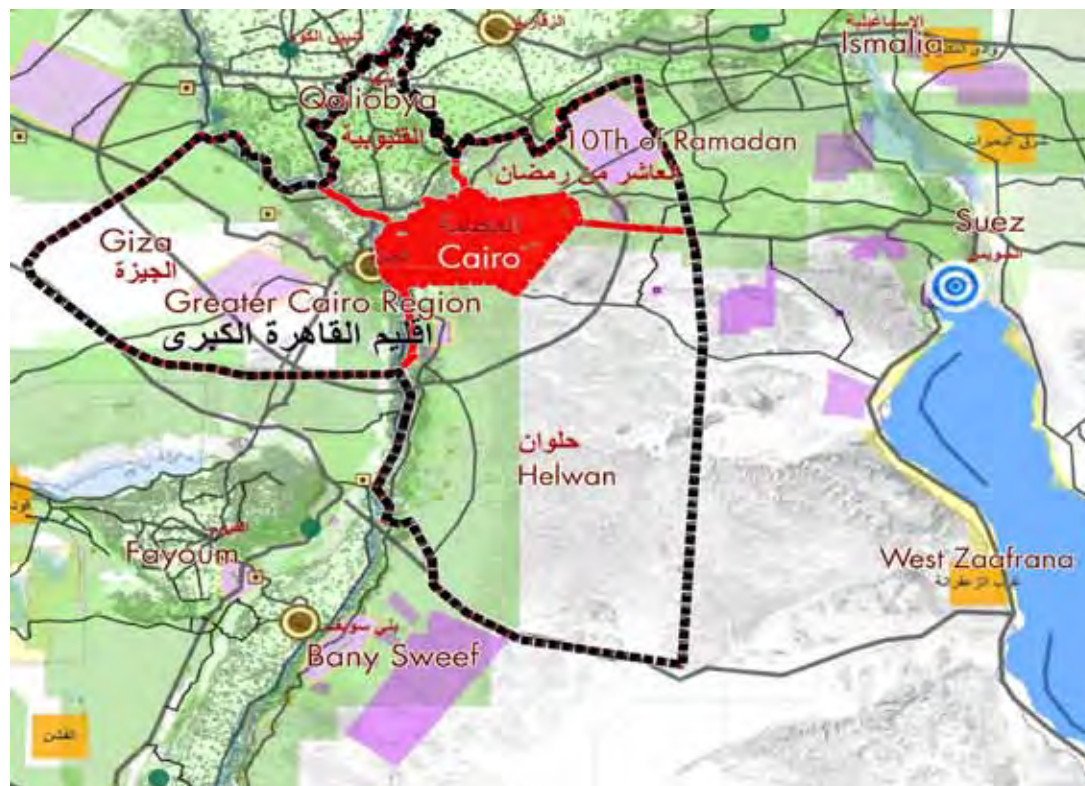
To achieve tangible development in any of Egypt's regions, the principle of integrating among such regions should be adopted. Due to its political and economic weight nationwide, the GC will not be able to lead the development process in Egypt except by integration with other regions through the development roles proposed for each region.

Due to the high centralization and increased

gravity of the GC compared to other regions of the Republic, GC was proposed to be the country's capital and center of governance and a center of all national and international investment activities. Meanwhile, other development processes were directed towards other regions according to their current and expected resources, taking into consideration the necessity of achieving balance in the integrated development processes all over the Republic. These procedures will lead to the establishment of new attractive development centers that would provide more job opportunities in different economic fields and accommodate the greatest possible number of the future increase of population.

Seeking to achieve social justice and economic efficiency in the proposed regions of Egypt,

Figure 6: Proposed Geographic Scope of GC 2052



Source: GOPP

Percentage of the GC's area to the total area of the Republic		1.8
Population 2027		26.8 million people
Job opportunities 2027		7 million job opportunities
Population 2052		33.5 million people
Job opportunities 2052		8.5 million job opportunities
Number of Governorates:		5
Areas of Governorates	Cairo (Capital City)	0.84 thousand km ²
	Giza	3.77 thousand km ²
	Qalyubia	0.98 thousand km ²
	The 10th of Ramadan City	1.20 thousand km ²
	Helwan	11.2 thousand km ²

“ The geographic scope of the GC includes the Capital City of the country as well as national and international investment activities.”

Main Development Projects Proposed on the Level of the GC

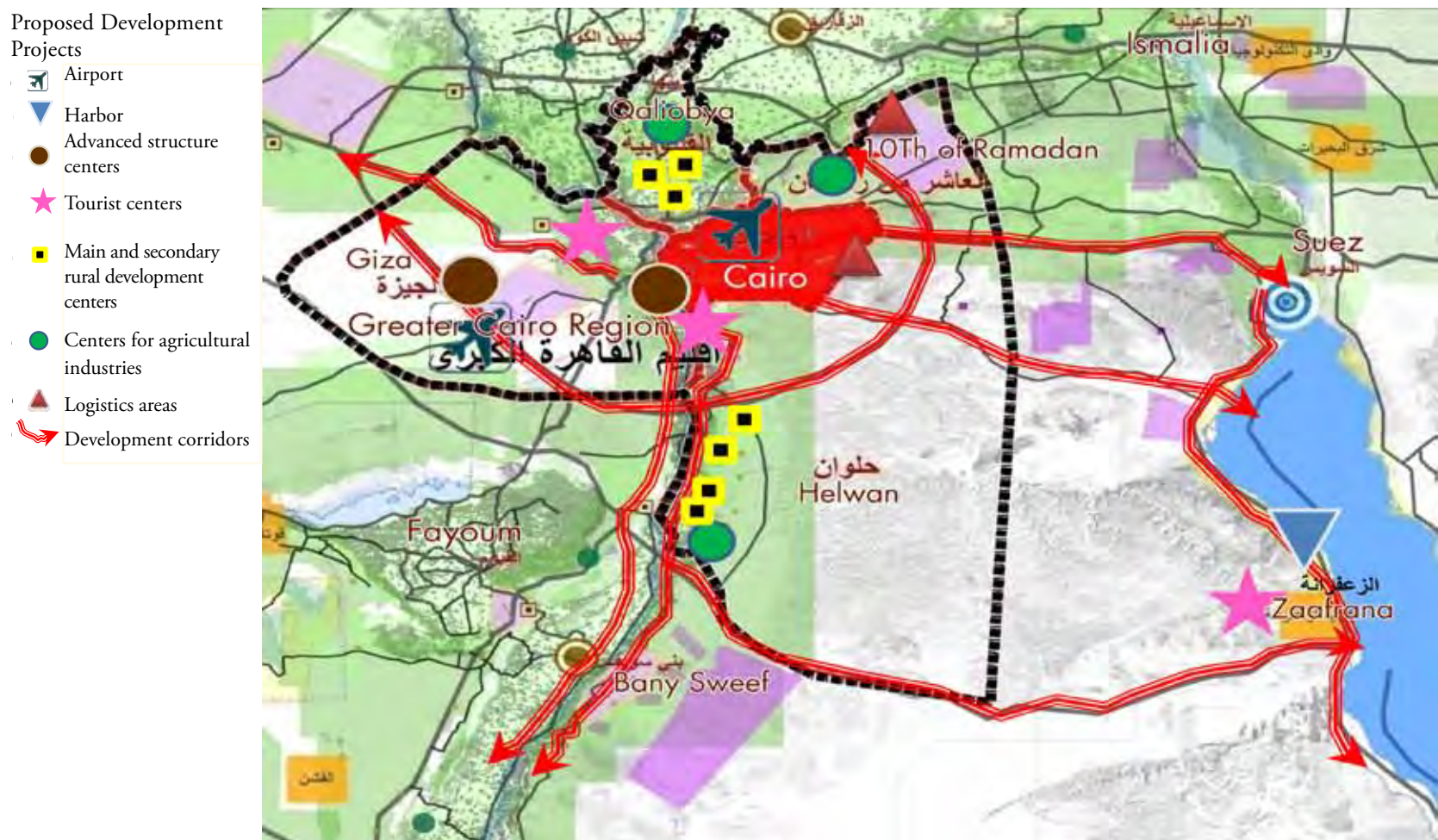
“in the Framework of Egypt’s National Plan 2052”

a number of major development projects were proposed for each region. The plan takes into consideration the necessity of integration and correlation between these regions, along with the balanced and equivalent distribution of available and expected development constituents in order to decrease disparity between, and reduce poverty in, these regions, with the ultimate goal of achieving the vision of Egypt’s National Plan 2052.

In this context, a number of projects were proposed to be established in the GC, as follows:

1. Establishing an international airport in the 6th of October.
2. Establishing a port in Za’farana;
3. Establishing two advanced centers for scientific research and advanced technical education to serve the activities of manufacturing and logistics in Cairo and the 6th October.
4. Establishing two centers for tourism in Cairo and Giza.
5. Establishing seven centers for rural development in Qalyubia and Helwan.
6. Establishing three centers for agricultural industries in Qalyubia, Helwan, and East of Cairo Area.
7. Establishing two logistic areas in the 10th of Ramadan and Helwan.
8. Establishing six development axes passing by the Region

Figure 7: Main Development Projects in the GC 2052



Source: GOPP

Proposed Spatial Development of Priority on the National Level

In order to achieve the concept of comprehensive development in Egypt and out of our belief in the principle of distributing development roles over the planned regions, five new development centers were designated in these regions. The logic behind selecting these regions in specific is their ability to accommodate the population increase in Egypt in general, and in the GC in particular, due to their diverse economic base.

First: Development of Suez Canal Axis as an international logistic and industrial center (first stage)

- Development of East Port Said Region; development of the Technology Valley, New Ismailia Al Amal District; and development of the Northwest of the Suez Gulf.

Second: Development of Northern and Central Upper Egypt

- The Golden Triangle (The Mining Industrial Complex Safaga, Al-Qusayr and Qena) as an international mining area
- Upper Egypt-Red Sea Corridor
- Corridor of Minya, Al-Bowaity, Siwa and the Western Borders (cultivating 100,000 feddans in the Western Plain of Minya)

Third: Development of the North-west Coast and its desert hinterland

- Establishing an urban settlement and an international tourist center in El Alamein
- Developing the North-west Coast and its desert hinterland as a destination for international tourism
- Developing Qattara Depression Area

Fourth: Development of Sinai

- Industrial development in Central Sinai
- Tourist development in South Sinai
- Reclamation of 400 thousand feddans and establishment of development-supporting projects in North Sinai

Fifth: Development of the South of Egypt

- Developing the region of the High Dam Lake and Toshka, Halayeb and Shalateen, RasHadarba and Al-Owainat Area

Three of these five development centers have direct and strong influence on decreasing the burdens resulting from the centralization of the GC. These three centers would also help re-draw the Egyptian urban structure to achieve economic prosperity as well as population growth and attraction throughout different areas of Egypt. These three regions are the Suez Canal Corridor Region, the North-west Coast Region together with its desert hinterland and the Northern and Central Upper Egypt Region.

“Three new development centers would have direct influence on decreasing the GC burdens and help re-draw the Egyptian urban structure.”

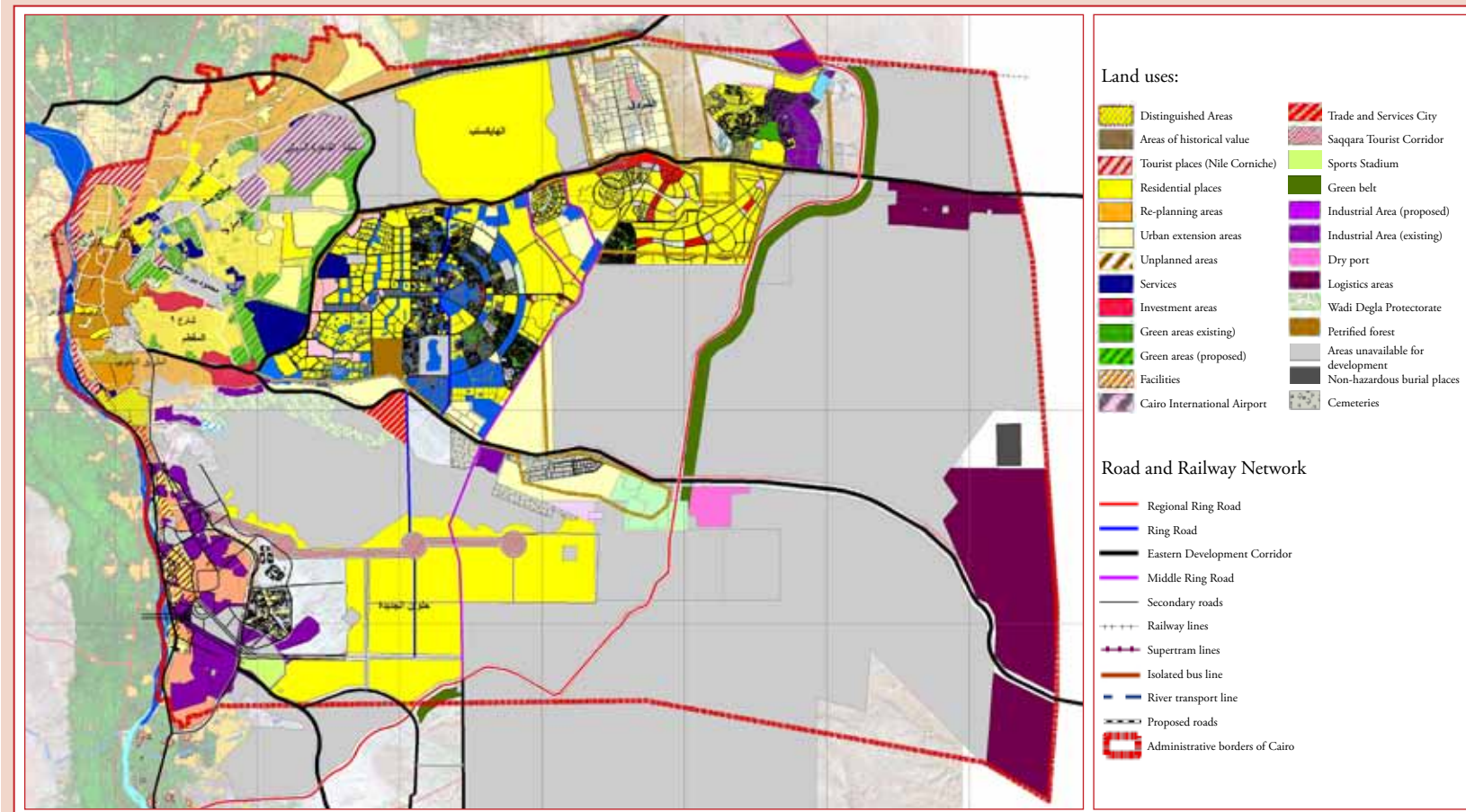
Figure 8: Priority National Development Projects until 2017



Source: GOPP

Strategic Plan of Cairo Governorate

Figure 9: Strategic Plan of Cairo Governorate



Source: GOPP

The strategic plan of Cairo Governorate relies on the following points:

- Highlighting the cultural and heritage landmarks of the Governorate and paying particular attention to the Nile River being a natural and pivotal component of the GC, in addition to setting specific conditions to deal with different areas in the Governorate.
- Gradual reduction of centralization of government offices and services in the Capital City to avoid high attraction to the Capital on the account of other urban communities, by moving some of these offices and services outside the urban mass of Cairo Governorate;

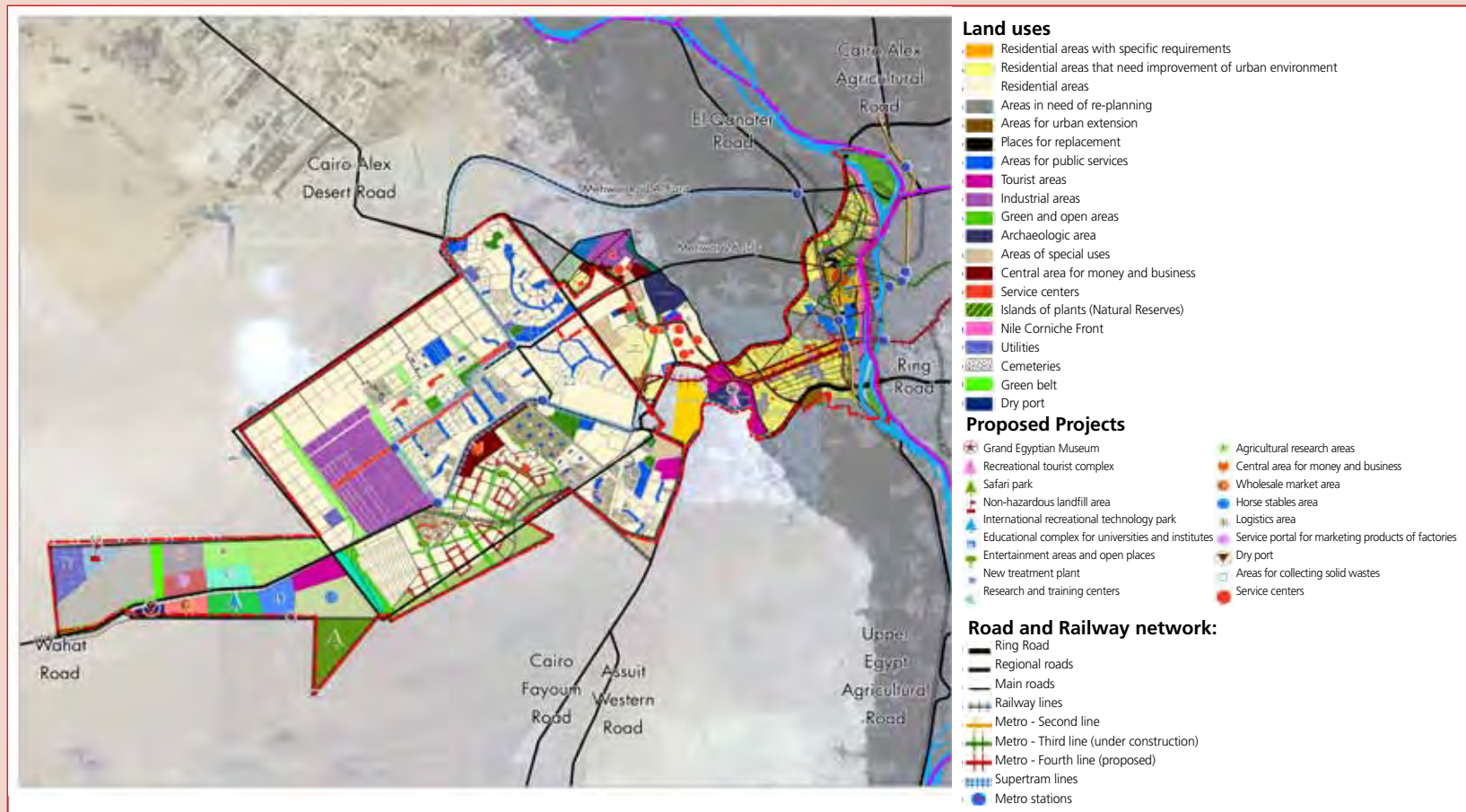
- Re-using the stock of land designated for public activities and land uses that can be relocated outside the urban mass of Cairo to meet the needs of Cairo Governorate for open and green spaces and services.
- Dealing with unplanned areas with the objective of achieving development in these areas in mind, and providing all means for encouraging reverse migration of its residents.
- Addressing traffic congestion by using the available possibilities to develop the management of the Governorate traffic flow.
- Maintaining and increasing the quantity and quality of green spaces to reach international rates,

in addition to paying more attention to pedestrian paths and spaces.

- Controlling and decreasing different sources of environmental pollution in Cairo to reach the international standards.
- Enactment of new legislations for the management of the Capital, with the objective of having a unified accountable leadership controlling all administrative and executive resources and powers of overlapping sectors and services, within the framework of a balanced relationship with the central government.

Strategic Plan of Giza Governorate

Figure 10: Strategic plan of Giza Governorate



Source: GOPP

The strategic plan of Giza Governorate relies on the following points:

- Integrated development of Giza Governorate within the wider framework of GC development, in the fields of business and investment with attention to the development of green areas, in addition to creating tourist paths and new regional traffic arteries;
- Taking into account the data obtained from previous studies and projects on the national, regional and local levels and integrating such data in the comprehensive vision for the development of the Governorate.
- Development of the west bank of the Nile River together with the eastern bank located

in Cairo Governorate, since the Nile River is the backbone of the GC in the fields of entertainment, river transportation as well as investment projects that need to have access to service centers in the heart of the Governorate;

- Employing the national and regional services located within the geographic scope of the Governorate as development centers and using them to formulate the urban image of the Governorate.
- Planning alternative major traffic arteries for roads and transportation to reduce the pressure on the existing traffic arteries;
- Developing the Governorate to form homogeneous development areas in terms of

their characteristics, issues, and constituents that are able to complement each other in terms of their respective functions.

- Planning land uses to cope with the future economic development dynamics and considering the effect of the proposed arteries for roads and transportation.
- Developing unplanned areas to reduce the disparity in the level of urban environment and ensure the availability of services in the residential districts and areas of the Governorate to open new horizons for investment in different fields.

Study of the Urban Structure of the East Cairo Sector

Over the last three decades, many of the urban plans of the new urban settlements in East Cairo were updated, but not within a framework of a broader plan. The lack of such broader plan led to many conflicts and contradictions, in addition to the overall influence of these studies on both regional and national levels. Consequently, it was necessary to coordinate between all these studies to combine them within a regional vision comprising these cities. Therefore, the ultimate goal would be the urban structuring of the East Cairo Sector as a whole.

- Connecting the sector with its agricultural hinterland and its adjacent urban area.
- Proposing the implementation of a railway network and developing the Supertram scheme.
- Distributing new uses, while maintaining the agricultural uses of associations with no more housing lands added.
- Not to localize any new industrial, administrative or university activities in the sector other than those proposed.
- Establishing a unified administrative organization.
- Making Obour extension a semi-urban compound of services and crafts with more economic housing.

The Vision of East Cairo Sector

- A semi-self-sufficient sector with integrated activities;
- A sector with diverse economic structures in a balanced manner; and
- A source for productive values, internationally and globally.

Proposed Structuring: Network-based System

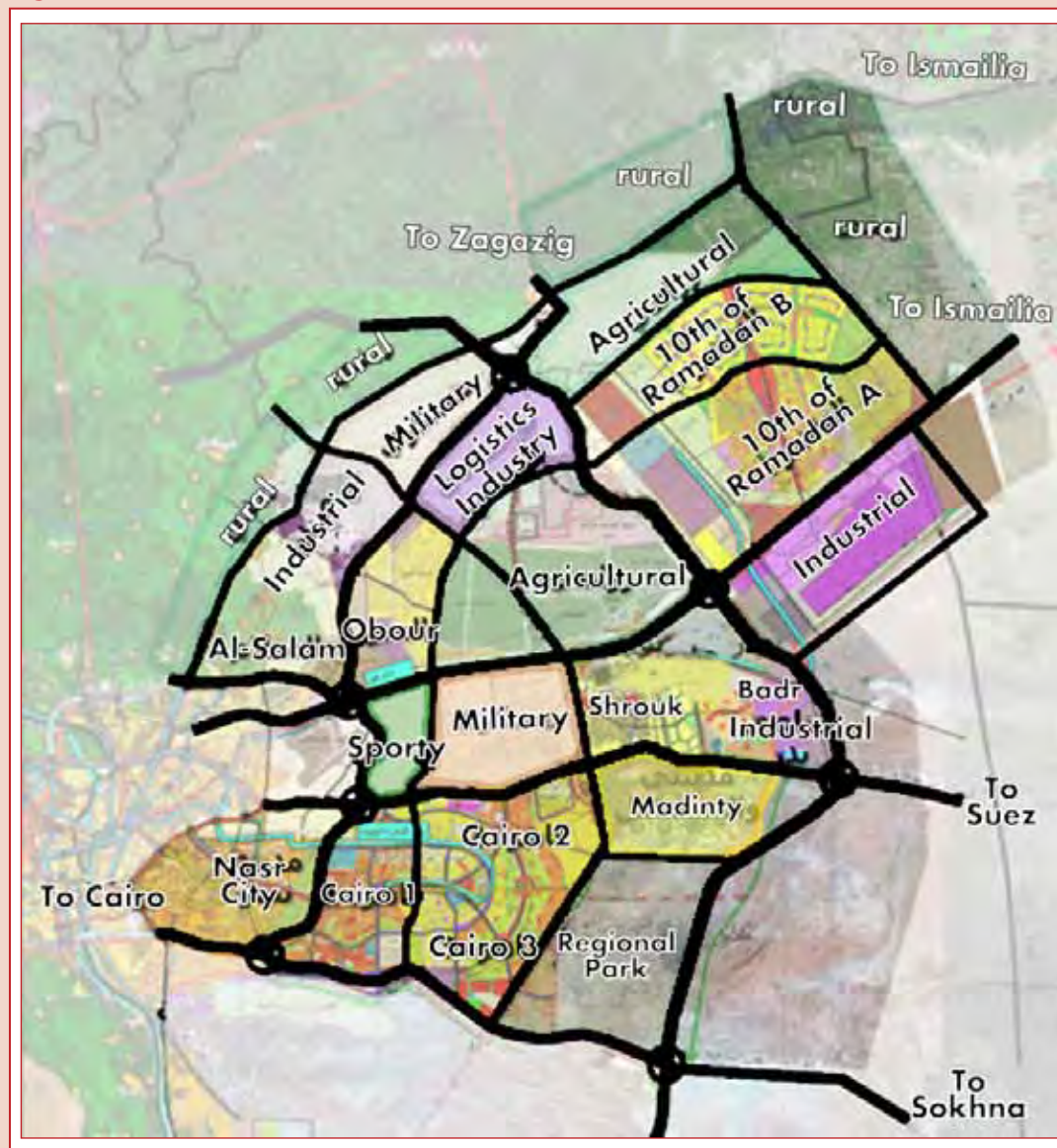
The ideal solution to address imbalances in the sector and its different areas lies in using network-based planning. This solution will enforce the role of transportation and traffic networks to produce the maximum possible level of permeability and communication between different parts of the sector; thus achieving the following :

- Functional integration on the level of the GC as a whole.
- Addressing the imbalance between job opportunities and housing, as well as imbalance between segments of residents.
- Freedom of choice and movement for the population
- Addressing the current failure in the distribution of uses..

Recommendations on the Level of the Sector

- Endorsing the sector borders to include the rural sector.
- Dividing the sector into relatively homogeneous sub-sectors.
- Road network based on the grid road system (GRID).

Figure 11: Urban Structure for East Cairo Sector



Source: GOPP

■ Objectives and Scope of GC Urban Development Strategic Vision

The GC is the scope of the study area for which the urban development strategy will be developed. It includes the urban mass of Cairo Governorate in addition to some parts of the Governorates of Giza and Qalyubia including some new urban communities (namely the 6th of October, Sheikh Zayed, the 15th May, New Cairo, Obour, Shorouk and Badr).

The vision defines the development opportunities of the GC and the requirements for effective urban management. It aims at decreasing the necessarily growing burden resulting from the expected increase in the size and density of population and ensuring the achievement of the community's hopes and aspirations.

“ Measures should be taken to reduce GC's strong attraction on the national level through proposing new development centers and poles. ”

The vision of GC comes in the framework of Egypt's National Strategic Plan 2052 and abides by its guidelines. According to the Plan, Egypt's population will reach 152 million people within the next four decades; consequently, the Plan aims at increasing the inhabited area from 6% to 11% of the total area of Egypt.

Therefore, more new development projects and corridors will be implemented. Moreover, measures will be taken to get out of the Nile Valley heading towards the Red Sea in the East and the Wahat Area in the West, while retaining the GC as the beating heart of Egypt. However, efforts will also be made to decrease the GC's attraction of population and reduce its population to 17% instead of the current 19% of the total population of Egypt. This objective can be achieved by proposing new development centers and poles outside the Nile Valley and the Delta Area to meet the needs of the increasing population on the national level, which will, in turn, mitigate the pressures of internal migration to the GC.

In this context, the GC Development Strategy, in light of the intensive studies conducted, proposes a number of leading projects to be open for community dialogue in order to define priorities, implementation stages as well as the roles of each entity in both the public and the private sectors throughout the implementation period..

Defining the borders of the study area (GC) is based on three factors: i) the planning relationships between different areas and districts forming the GC, ii) the unified labor market and iii) the homogenous conditions of living for the majority of the population. Thus, all the aforementioned factors shape a dynamic urban unity that contributes to strengthening the feeling of common affiliation among the population of the GC.

It is known that the bigger the city size and density, the more the opportunities for creativity and innovation and the better the economic performance. Consequently, the manufacturing field will have better opportunities to make use of the diversity and exchange of new ideas in high-density cities. Moreover, trade will have better opportunities to increase the number of consumers; consequently, the number of available job opportunities will increase which will, in turn, lead to tangible economic benefits. It is also known that big cities enjoying good management contribute to raising the economic performance of countries. However, with the increase in the size and density of cities, certain urban problems emerge such as overcrowding, scarcity of land and pollution. For this reason, it is necessary to have urban planning that considers the urban situation, the surrounding urban environment, the infrastructure and the mechanisms of labor force within any urban development area.

Figure 12 and Table 5 show the borders of the GC, as follows:

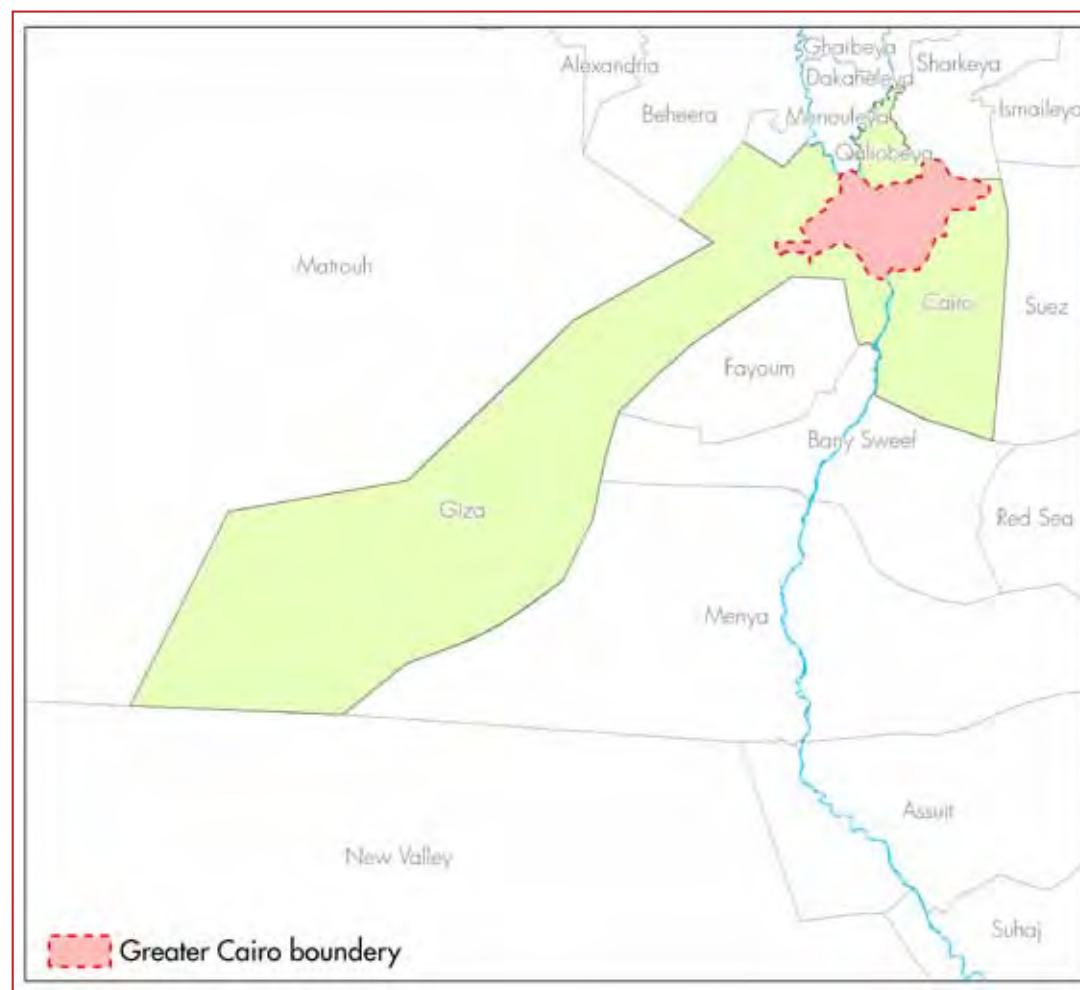
1. The urban mass of Cairo Governorate.
2. Part of Giza Governorate.
3. Part of Qalyubia Governorate.
4. Some new urban communities (namely the 6th of October, Sheikh Zayed, the 15th of May, New Cairo, Obour, Shorouk and Badr).

It is clear that the size of the GC and the interlocking urban challenges it faces require adopting a comprehensive approach to achieve the strategic vision, especially that solutions most often lead to undesirable outcomes in other fields. Moreover, relying on planning solutions only is insufficient. Therefore, a comprehensive and interconnected plan that considers the economic, social, environmental and urban dimensions should be developed in the framework of the planning of the GC.

The GC urban development strategic vision addresses the following points::

- Reviewing the comprehensive approach followed in developing the plan.
- Defining the main challenges facing the GC;
- Defining the GC comprehensive vision and the main practical steps that need to be taken on the ground;
- Presenting the GC economic development strategy ;
- Presenting GC social and urban development strategy;
- Defining the sectoral programs; and
- Presenting the proposed development projects.

Figure 12: GC Borders (Governorates)



Source: Database of the GC Geographic Information Systems - GOPP

Table 5: Population of GC 2012

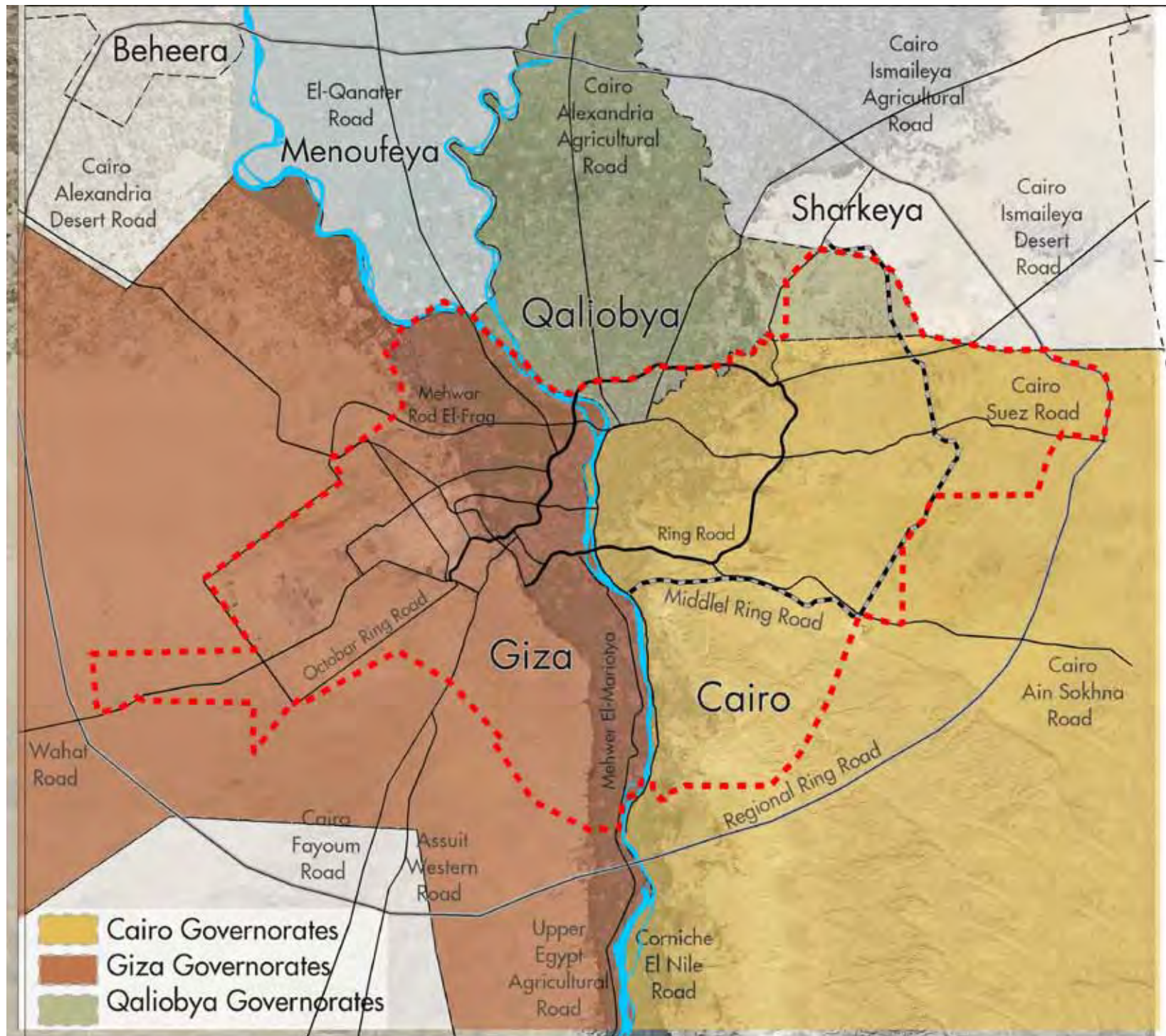
	Population within the GC borders (in million people)	Area inside the GC (in km ²)	(%) of GC total area
Cairo Governorate	8.9	1514	48%
Giza Governorate	5.4	1471	47%
Qalyubia Governorate	1.9	148	5%
Total	16.2	3133	100%

Source: GOPP estimates based on its database and CAPMAS database

Future Vision

Introduction: The Capital at a Crossroad

Figure 13: GC (Study Area)



Source: Database of the GC Geographic Information Systems - GOPP

Community Participation Methodology

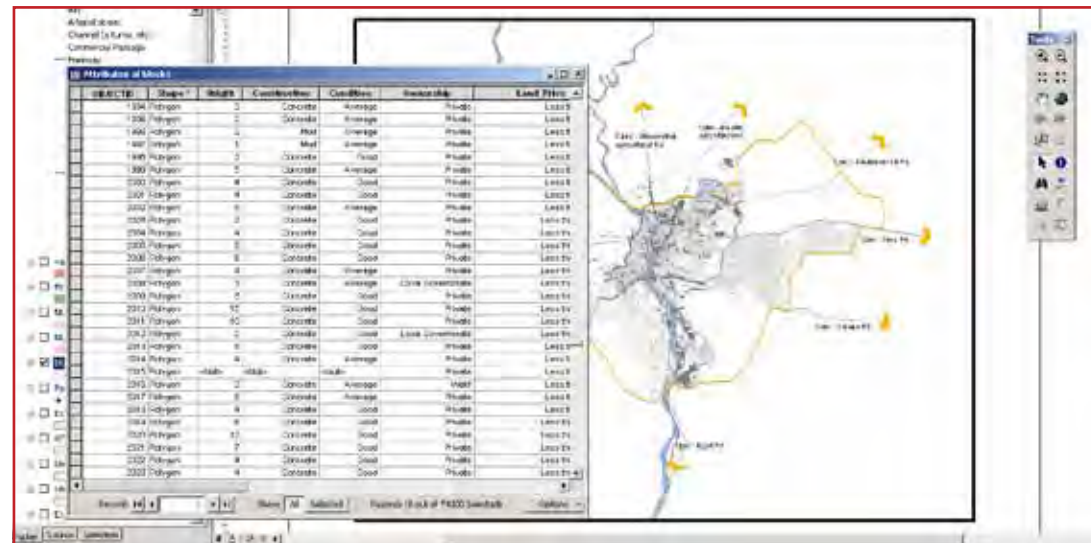
The preparation of the GC urban development strategy started in 2008 and is still going on. The methodology of work was drafted in a manner to include all the required factors to successfully shape a future vision for the GC in addition to formulating a practical and effective strategic plan at a later stage. One of the main objectives of the work methodology is to create an urban development vision that is based on the participation of the concerned parties and development partners, taking into consideration all opinions, inputs and views during the stages of preparing this strategy.

The GOPP, in cooperation with the GC Governorates, undertook the task of developing and formulating the GC urban development strategy. The process started by concluding a technical cooperation agreement signed in December 2007 between the Government of the Arab Republic of Egypt represented by the Minister of Housing, Utilities and Urban Development and the Foreign Ministry on one hand and the United Nations on the other.

Under the agreement, both the United Nations Development Programme (UNDP) and the United Nations Human Settlements Programme (UN-Habitat) shall provide technical support to the project. Along with the technical support, many international and local experts and consultants as well as local bodies such as concerned government ministries, the Cabinet's IDSC, universities and governorates will participate in all stages of work.

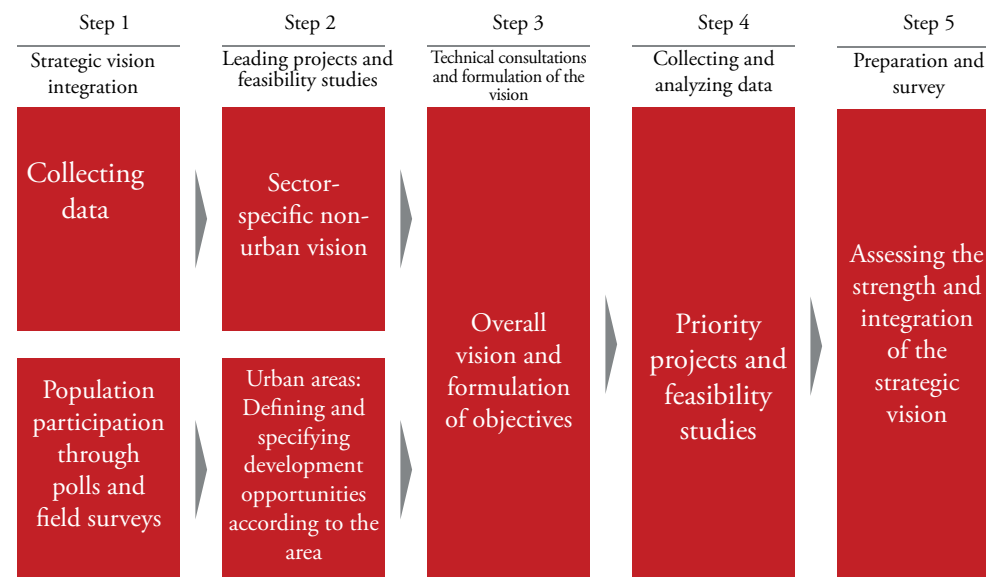
The formulation of the GC strategic vision has also taken into account the long-term strategic plan of the GC which was prepared in 2006 in coordination with the Japan International Cooperation Agency (JICA). Moreover, it

Figure 14: General Image of GIS Database



Source: GIS Database

The planning process includes the following five steps:



highlights the challenges and problems facing the GC as a whole. In order to ensure integration and to provide effective work plans, the work methodology combined between analyzing the situation in different development sectors of the

GC and the spatial analysis of the current situation using the database of the Global Information Systems (GIS). The work methodology includes the following steps:

Step 1: Preparation and Survey

In order to ensure that the project as a whole is based on firm analytical foundations, as a first step, intensive efforts would be directed towards collecting data about all matters and issues related to the support of GC development.

As a main prerequisite, it was necessary to engage all concerned parties and stakeholders through performing a number of tasks and activities as follows:

- Conducting surveys of public opinion on random samples of the GC residents to highlight the problems they face and to define their future ambitions.
- Establishing an information unit to be used as a media observatory to record all reactions and proposed ideas through the media, and test the preferred trends of concerned parties and stakeholders regarding the GC strategic development.
- Creating a website for the project to highlight all relevant topics in order to guarantee early participation by concerned parties and development partners, to ensure transparency and to have a permanent communication channel.

- www.cairofuturevision.gov.eg -

According to the outcomes of the JICA report, and based on the results of the surveys of the concerned parties and stakeholders as well as the media reactions, it was agreed that it was necessary to conduct a number of studies on the development sectors. Consequently, 13 main development sectors were defined and studied due to their significant influence on the GC development. These sectors include:

- 1- Industry
- 2- Trade
- 3- Money and business

Figure 15: GC Future Vision Website



- 4- Communication and information technology
- 5- Health
- 6- Education
- 7- Tourism
- 8- Culture and media
- 9- Land and shelters
- 10- Transportation
- 11- Environment
- 12- Potable water and waste water
- 13- Governance

In parallel with the above step, and in order to reach a deep understanding of the current urban situation and the available urban development

opportunities, the GOPP used recent satellite images of the main urban mass in the GC as the basis for the urban survey and for collecting the spatial data required for the upcoming stages of the project.

Step 2: Data Collection and Analysis

Non-urban Studies

In this step, meetings and workshops were held with the development partners in each of the development sectors, as the approach of shared planning is one of the main pillars the project is based on. These meetings and workshops aimed at the following:

- Analyzing the strengths, weakness, opportunities and threats (SWOT) of each sector.
- Assessing the competitive capability of the sector on the local, national and international levels.
- Agreeing on the GC future vision and the priority projects.
- Defining the future vision for each sector.



In light of the results and directions of the workshops attended by the representatives of all concerned entities and sectors, including governmental, civil, public and private bodies and civil organizations, a SWOT analysis was conducted. Moreover, a report defining the current situation and the proposed priority projects to achieve sustainable development was prepared for each sector. These studies contributed to identifying the procedures for initiating social and economic development. Thus, all these reports were used for the preparation of the broader GC “proposed vision”.

Urban Studies

A detailed analysis of the GC main urban mass was conducted and its results were connected to the population data provided by the CAPMAS through the unified database according to the Global Information Systems (GIS) prepared by the GOPP.

The GC was divided into 23 urban areas in addition to three new urban communities. The division was based upon some elements such as the prevailing land use patterns, population density, building density, urban fabric pattern and the availability of natural or urban parameters. These areas were analyzed using a group of cadastral data sets such as land use on the block level, non-built areas, unplanned and unsafe areas, proposed and under-construction projects as well as some basic statistics (e.g. population, population density, and the per capita share of green spaces). The cadastral data related to unsafe areas - approved by the Slum Development Fund - were included in the database created using the GIS. Moreover, the data were reviewed and verified for more accuracy in determining the unplanned areas using the field

survey methods, the municipal studies and the study of the German Agency for International Cooperation (GIZ) on the unplanned areas in the main urban mass.

Based on the results of these studies, the main aspects of each area were defined and the work schedule for each was agreed upon by classifying the land uses in a unified table for each area so that it represents the structure of land uses in 2009. The database of the Global Information Systems was also expanded to include all the new urban communities adjacent to the main urban mass.



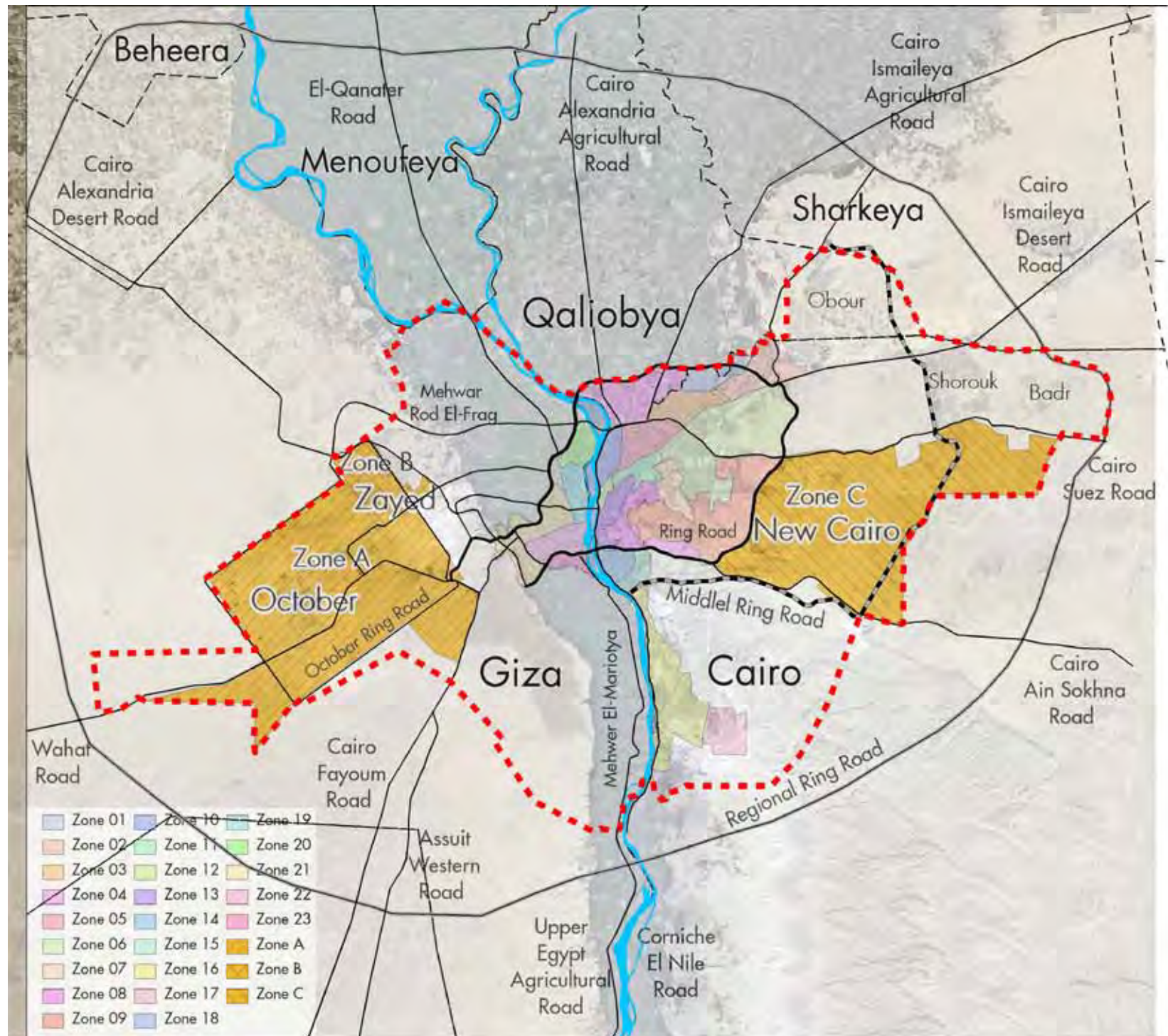
(1) Unplanned areas are such areas in which residential units were built on lands that are illegally owned by their occupiers, or such areas that include residential units built in violation of the planning and building laws..

(2) Unsafe areas are divided into four levels, namely areas exposed to life threatening conditions, areas lacking proper housing conditions, areas threatening public health and areas with legal violations related to the possession conditions.

Future Vision

Introduction: The Capital at a Crossroad

Figure 16: Urban Areas in the GC



Source: GIS Database for the GC - GOPP

Step 3: Technical Consultation and Formulation of Vision

One of the key pillars of the work methodology is to have all concerned parties participate in the planning stage. After defining the vision of each sector and identifying the development opportunities in each area, the next step was to hold a series of meetings and seminars that brought together experts and local leaders as well as representatives of the GC residents, the matter that provided an opportunity to support the vision and verify its credibility..

This step included conducting a survey of citizens' vision for the GC that included about 300 households, taking into account the media reactions..

Seminars Held on the Ministerial Level

Workshops were organized for leaderships, concerned parties and governors for the purpose of exchanging knowledge, agreeing on the key sectors to be focused on, and formulating the GC development vision. Two seminars were organized: the first was on the 25th of January 2009 with the participation of some prominent professors of urban development and planning. The second seminar was held on the 22nd of March 2009 with the participation of intellectuals, media professionals, investors and members of the People's Assembly and Shura Council. The number of attendees was 700 persons..

Participation of Local Leaderships

In line with the project activities, and in light of the GOPP interest in community participation, two workshops were held during May and June 2009 to discuss the future development vision in the framework of the sharing approach. The workshops also discussed mechanisms of implementation and control of urban development, with the

participation of the leaderships and members of local and executive councils in the GC Governorates..

Other workshops were also organized in the public office of the Ministry of Housing, Utilities and Urban Communities which brought together officials from the GC Governorates and the affiliated municipal councils.

Between March and April 2009, workshops were held aiming at the participation of the concerned bodies and institutions..

Public Participation

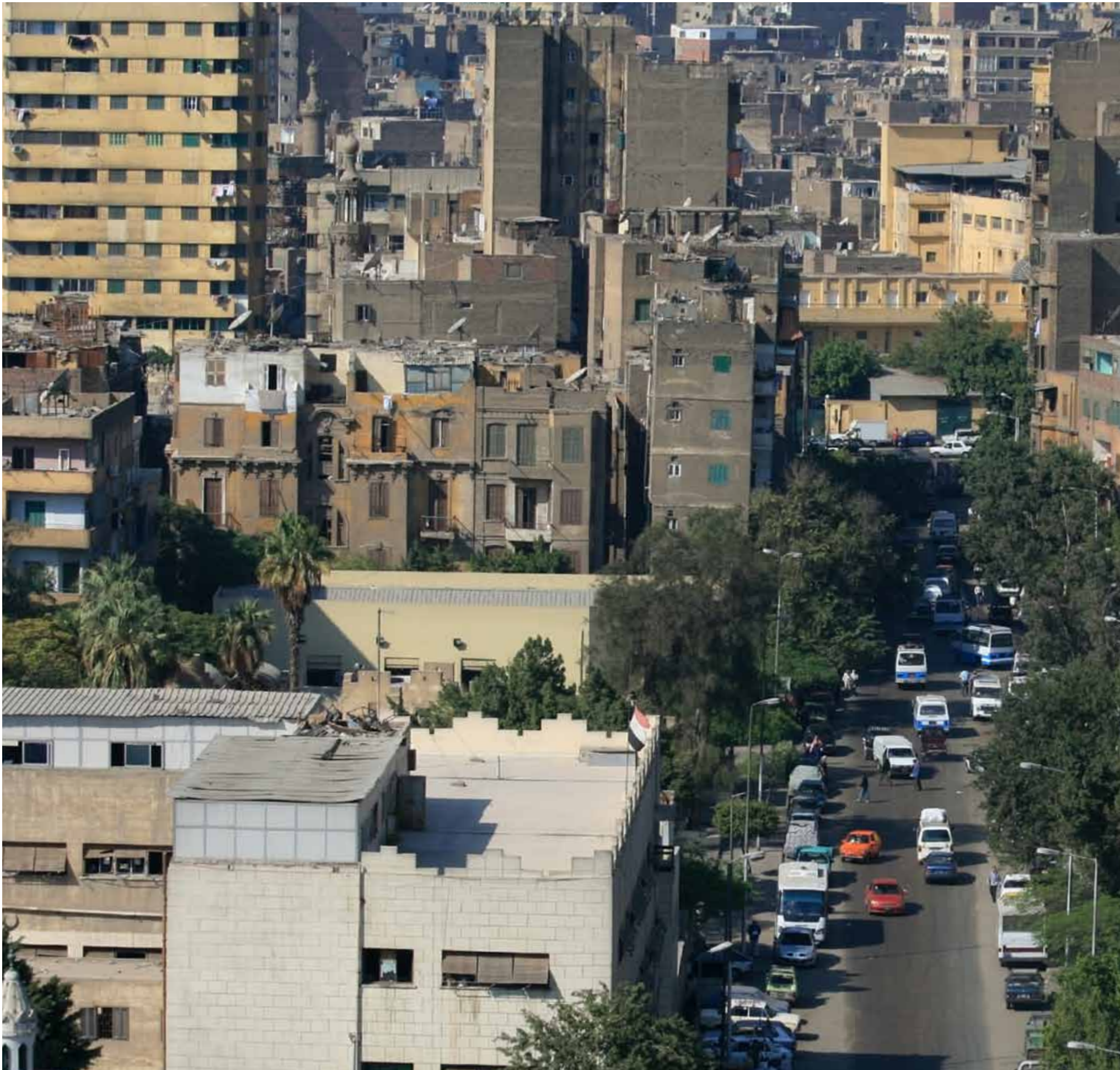
To ensure the participation of the GC residents in formulating the vision of the development plan, especially those living in areas with special conditions (i.e. areas with the worst conditions) such as those living in cemeteries, unplanned areas, unsafe areas etc., many extensive surveys were conducted to ensure that the formulation of the vision properly addresses the priorities and needs of the GC residents. These surveys were conducted in different places throughout the GC.

Step 4: Leading Projects and Feasibility Studies (being prepared)

This stage starts after the second survey which will take place after issuing this version of the report and after agreeing on the development vision in a framework consistent with this report, taking into account all visions and impressions of all concerned parties and development partners. An extensive study will be conducted to determine the priorities of leading projects and to study the implementation mechanisms, the funding sources and the timetables for such projects. It is also planned to study the institutional framework that guarantees the development of a feasible detailed plan.

Step 5: Integration of the strategic vision and proceeding with the preparation of the strategic plan (being prepared)

This is the final step in the vision development process through which all factors reached in previous studies will be collected. The strength of the strategic vision will be particularly evaluated in case of any unexpected scenarios that might have a dramatic impact on the GC future. This stage will also witness the preparation for the development of the GC strategic plan.





Chapter One: Towards Facing Future Challenges

The issues of improving the quality of life, consolidating social values and achieving economic competitiveness are considered to be among the most important problems in the GC.

Recognizing the challenges facing the GC is the first step towards formulating a vision and developing a strategic plan that meet population's needs; since ignoring such challenges make it difficult to deal with them over time.

Three Main Challenges facing the GC:

- The first challenge is the population and economic growth. The GC needs to contain the massive population growth and create the conditions for sustainable economic growth, while ensuring social justice.
- The second challenge is the unplanned growth of housing and services. The GC needs to change the legacies that Egypt suffered from as a result of unplanned growth in the last period, in addition to being ready for future development.
- The third challenge is the environmental degradation of the urban areas. The GC needs radical solutions to stop such degradation.

Challenge 1: Growth Problems: (Population, Housing Units and Job Opportunities)

The GC residents reached 16 million in 2012, which is 19.5% of the total population of the Arab Republic of Egypt. The GC witnessed a period of tremendous population growth throughout the second half of the twentieth century. In 1927, the population reached 1 million; afterwards, the period between 1937 and 1970 witnessed a leap in population growth to reach 6 million in 1970. Then, the population growth slowed down a little bit hitting 2% until 2006 as shown in Figure 18.

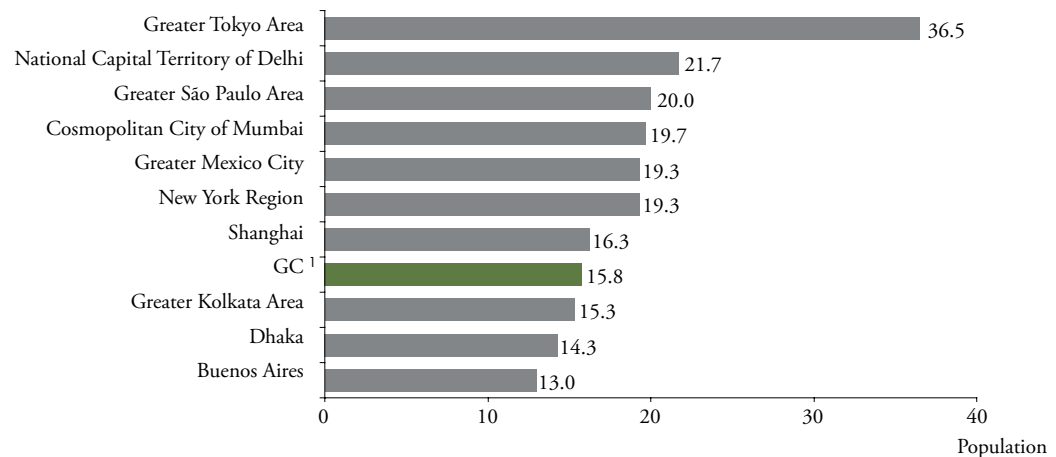
Such rise in population can be attributed to the high natural increase resulting from high birth rates (average of children per woman is almost 2.5) and the high rates of internal migration to the GC. During the middle decades of the twentieth century, especially after the start of the industrial activity stage in major cities, Egypt has witnessed high internal migration rates from rural areas to cities in general and to the GC in particular. It is widely believed that the rates of internal migration to the GC have slightly decreased over the last period; however, between 1996 and 2006, internal migration to the GC continued at the rate of 76,000 people per year, with almost 60% percent (almost 46,000 people) coming from the Nile Delta and 40% (almost 30,000 people) coming from Upper Egypt. Those migrants came to the GC searching for job opportunities, because of family reasons or to better benefit from infrastructure and services.

- The GC residents reached 15.8 million in 2009, to be ranked eighth among the world's most densely populated urban areas as shown in Figure 17.
- It is expected to control future population growth rates to reach 22 million by 2032.
- Present demographic, social and economic trends also show a reduction in family size, increased participation in the workforce and an increase in the elderly group.

Upon reviewing the GC residents's age structure, it becomes clear that it goes with that of Egypt; nevertheless, the GC residents is older in age.

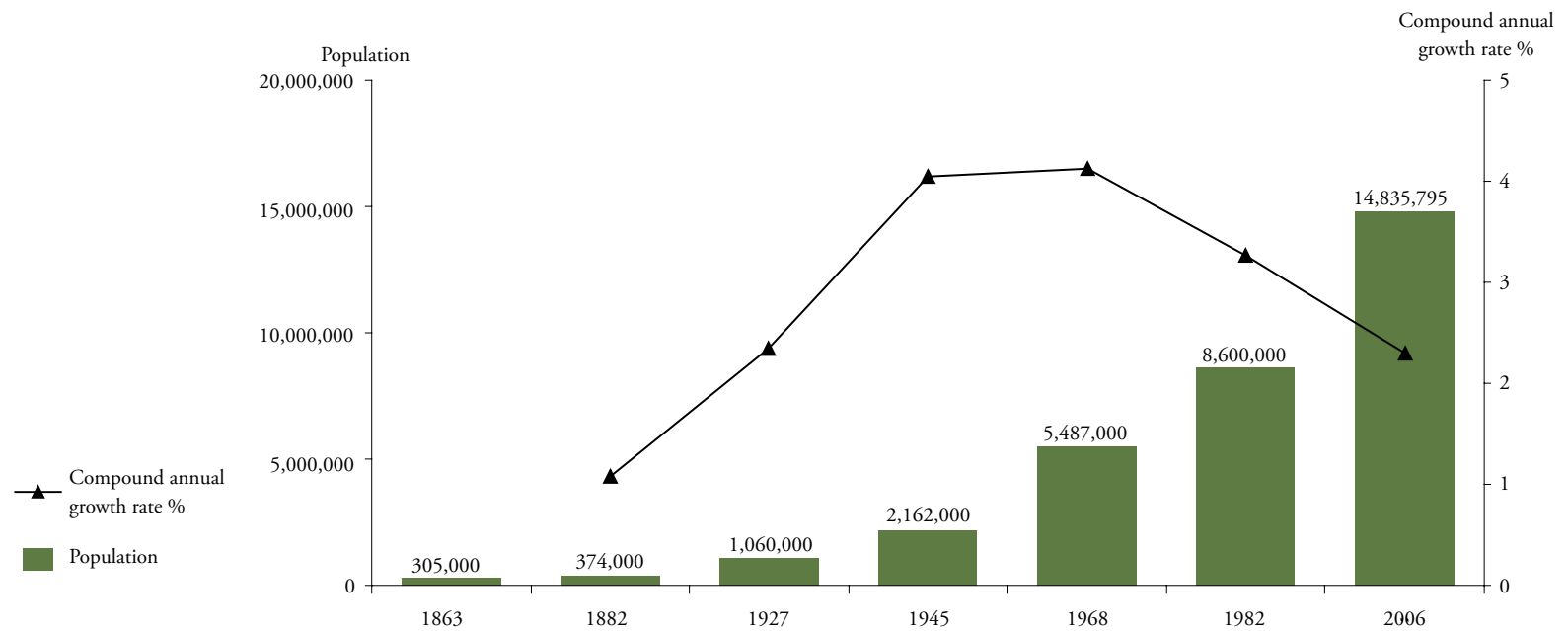
People aging 45 or more represent 23% of the GC residents and about 18% of Egypt's population as shown in Figure 19.

Figure 17: Population of major cities in the world in 2009 (in million people)



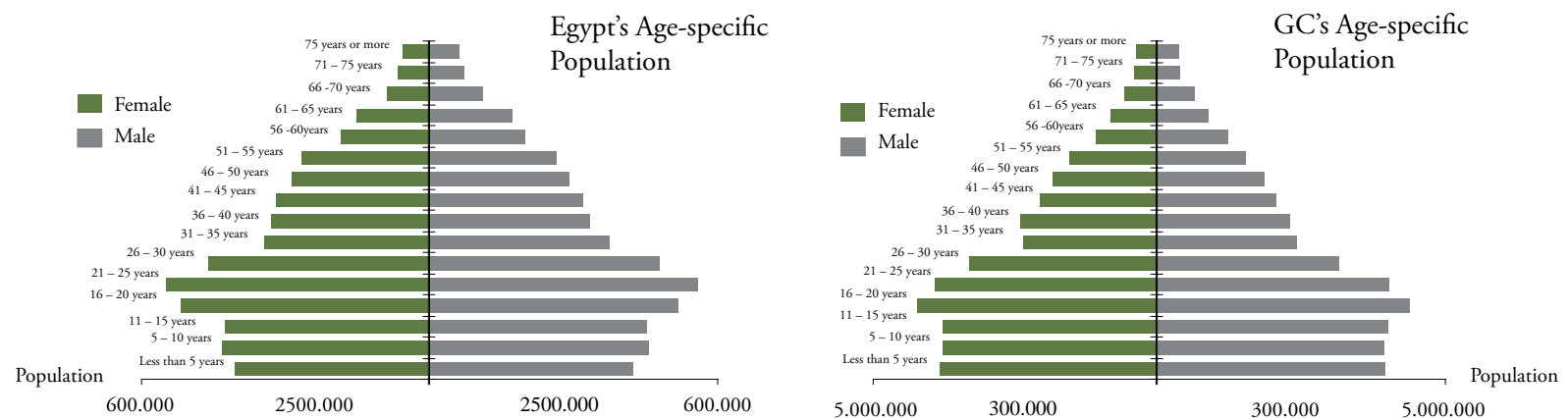
Source: World Urbanization Prospects Report – The 2009 Revision, United Nations – Population census: CAPMAS, Egypt.

Figure 18: History of Population Growth in the GC



Source: Cairo: "City of History," Andre Raymond, 2004 –CAPMAS - GOPP

Figure 19: Age-specific Population Estimates in the GC in 2006



Source: CAPMAS –Population census of 2006

Sustainability of Population Growth

Egypt's National Plan 2052 works on developing alternative centers for population attraction in Egypt, with continuous control of the GC residents growth. In the context of this scenario, the GOPP estimates show that the GC residents will increase from 16 million in 2012 to 20 million in 2027, and will reach 22 million in 2032, exceeding 2012 total population by 35.4% as shown in Figure 20.

In case of the continuous increase of the GC residents and applying the present scenario for population growth (with no actual intervention to reduce population growth and internal migration), the population growth is expected to increase by 475,000 people every year, hitting 24 million in 2032. Uncontrolled population growth undoubtedly threatens the GC development, and prevents the development of other centers of population attraction in Egypt.

There are two main factors affecting such growth:

- High Fertility rates, despite being reduced to 2.5 child/woman; and.
- The population increases in spite of controlling fertility rates to reach the replacement level (the increase of birth rates in last decades will continue throughout the population pyramid, resulting in a large number of childbearing-age women).

There are many demographic patterns affecting the future such as elderly population, flow of labor market, shrinking of family size and changing consumption patterns.

Apart from population growth, there are many important demographic patterns interacting in the framework of demographics in the GC. As a result of reducing birth rates, the GC residents will be older in age and this will continue until 2032. It

is expected that a great change will take place in the population age pyramid as shown in Figure 21, resulting in short-term flow of large numbers to the labor market. Then, the labor market will retreat later with the increase of population's age and the reduction of birth rates, as shown in Figure 22. Demographic studies also show that the numbers of the GC small families have increased.

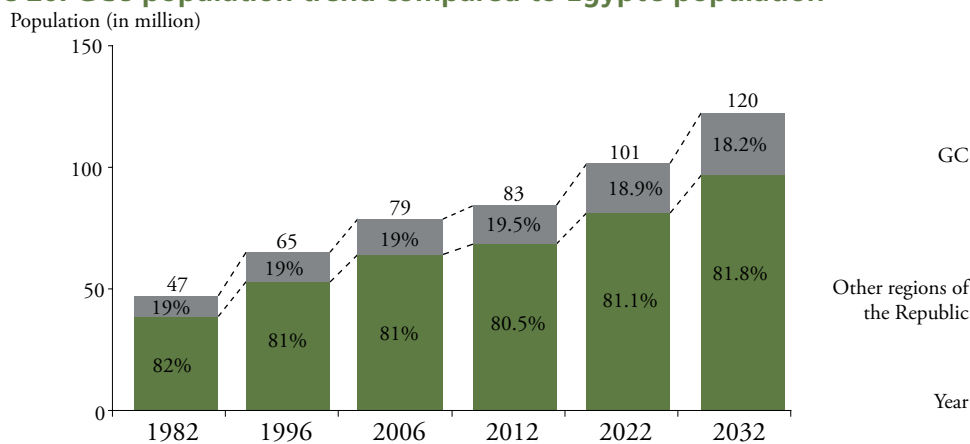
Finally, the expected economic growth will likely affect the consumer behaviour of the population and create new needs. Such fact was continuously noticed in all countries that witnessed similar development stages.

Achieving economic growth is a main condition to support population growth

The population growth and demographic change result in wide-ranging consequences. The population increase adds to the growing demand for all kinds of public services and infrastructure. Pressure has increased for guaranteeing housing adequacy on several levels due to the reduction of family size. Furthermore, the increase of the elderly population results in a high demand for healthcare infrastructure which barely covers the current needs. Moreover, economic development often contributes to the increase of cars' ownership, the high demand for having bigger housing units, providing units for target groups and the growing demand for recreational activities.

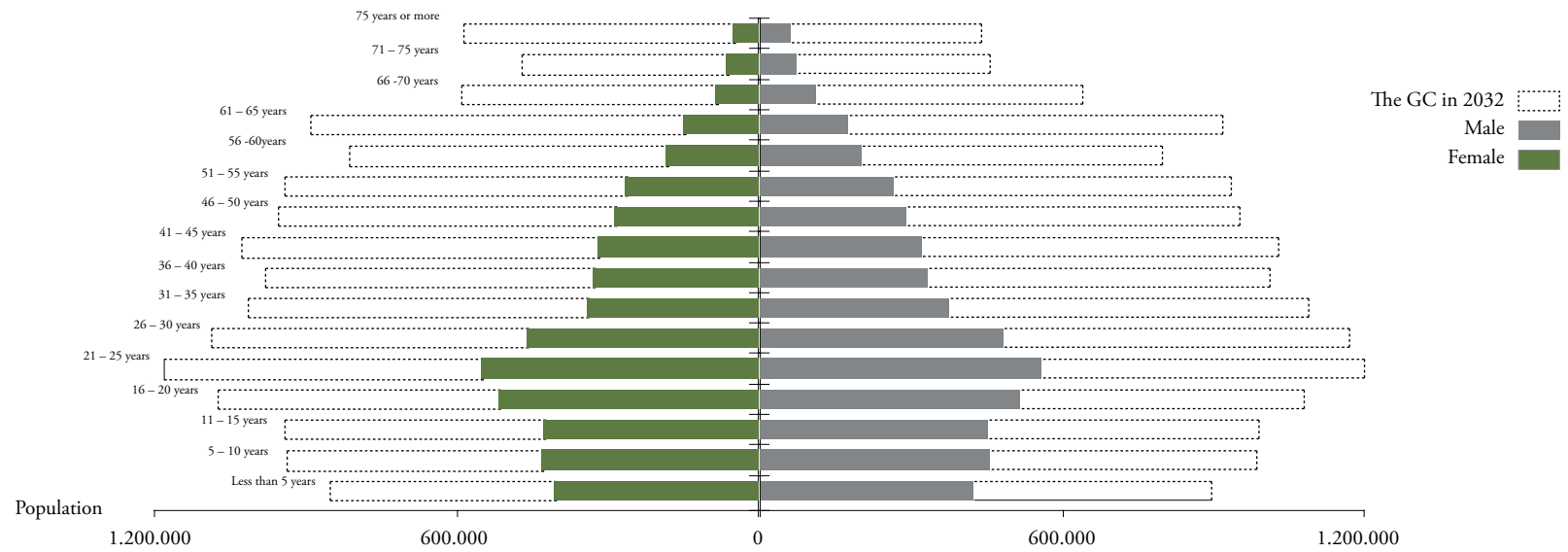
Lastly, pressure on basic natural resources, especially water, will increase.

Figure 20: GC's population trend compared to Egypt's population



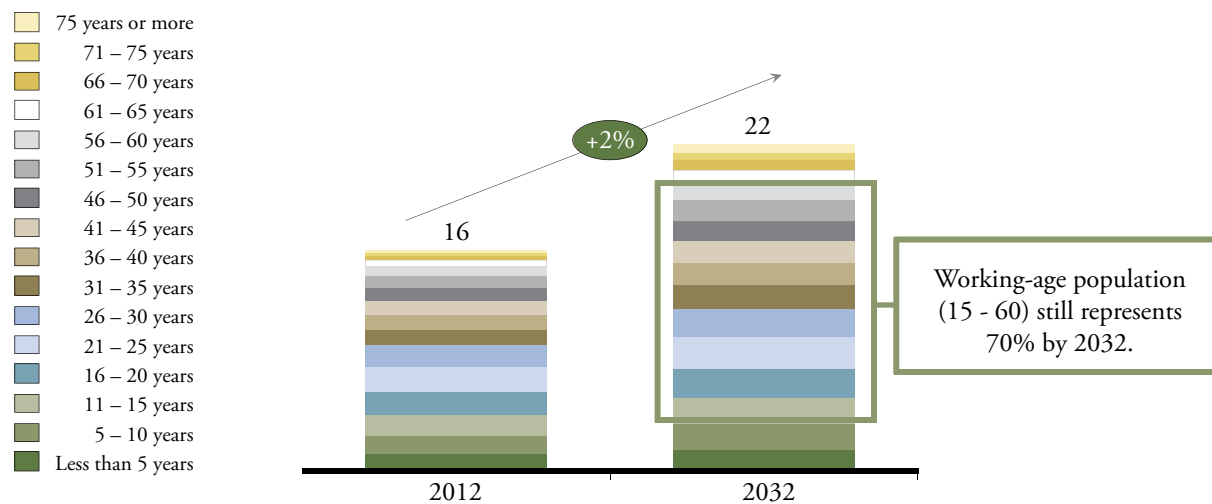
Source: CAPMAS - Population census for 2006 and GOPP Analyses

Figure 21: GC Age-specific Population Estimates in 2032



Source: CAPMAS, GOPP, Report of the International Organization of the United Nations, World Population Prospects: The 2008 Revision

Figure 22: GC Working-age population by 2032



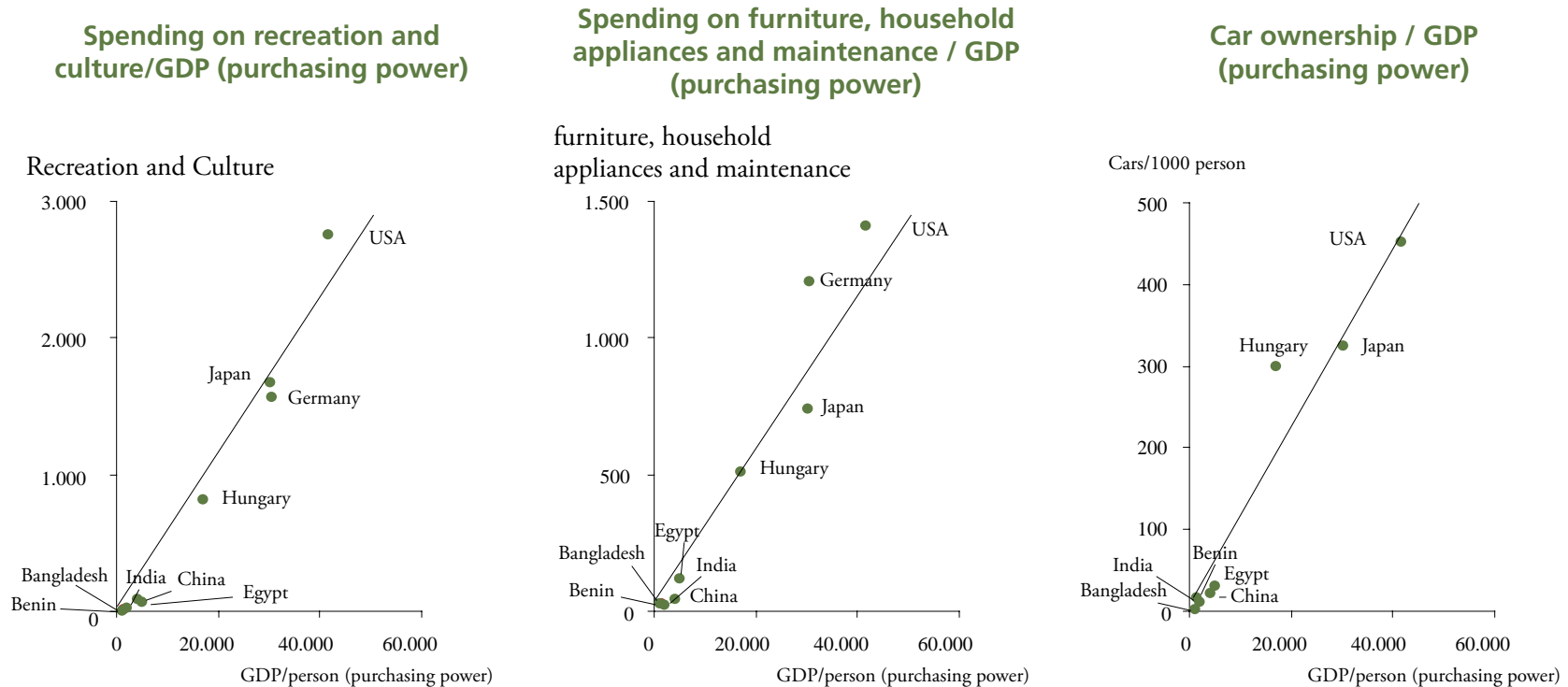
Source: GOPP

In the same time, the GC must adopt development and growth concepts. Population growth leads to an increase in the domestic market size and economic prosperity. On the other hand, economic development increases the needs of the consumer goods market, creating more opportunities for a great number of service providers and manufacturers, as shown in Figure 23.

The development of the Chinese consumption pattern (Figure 24) shows that the richer the family is, the more it spends on non-basic consumer products (luxury products), while average spending on food and beverages (basic consumer products) would not relatively increase with the increase in the family income.

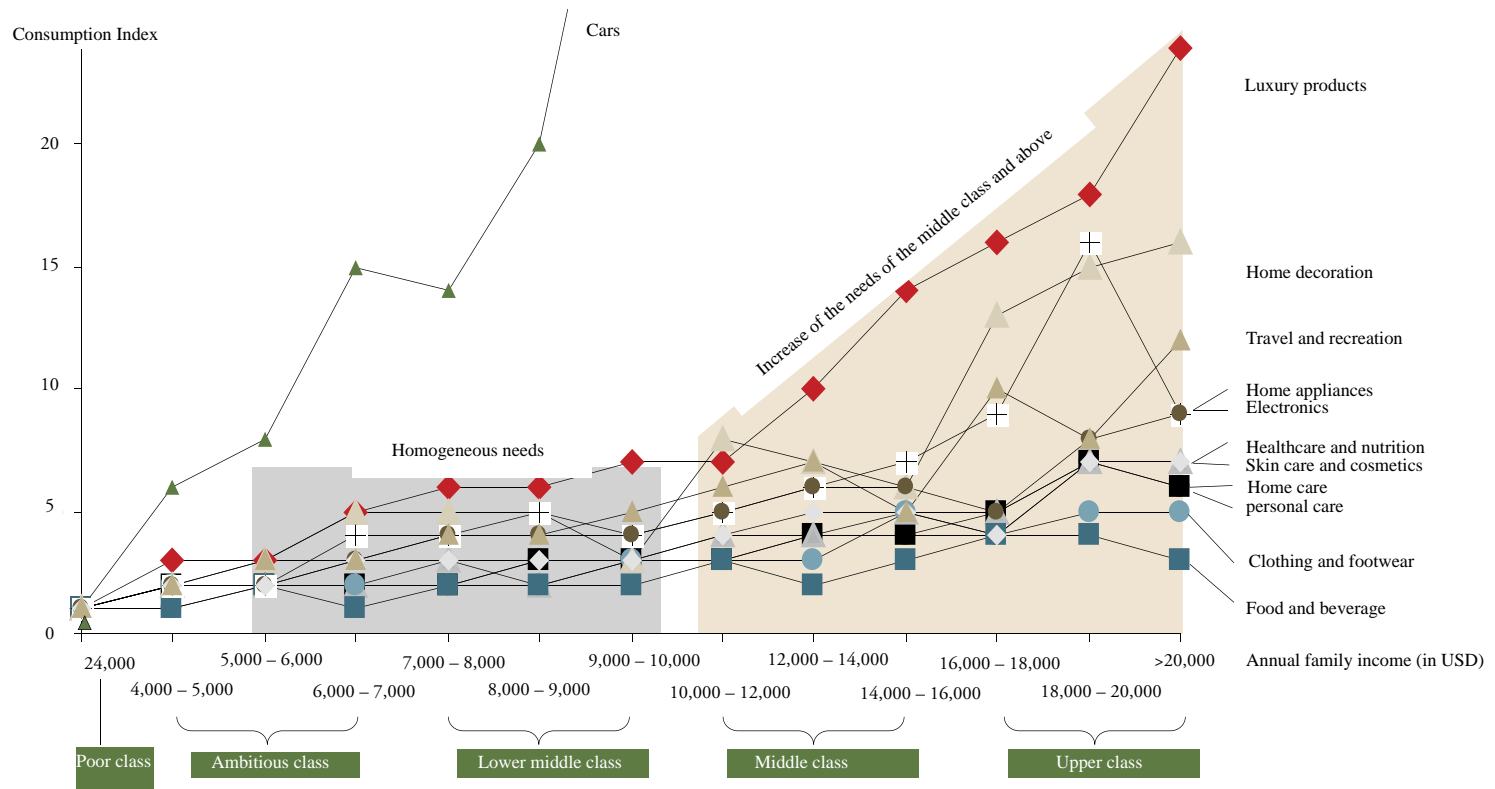
Due to the diverse economic base of the GC and under the population indicators data as well as the expected high labor force participation rates, which is currently low as shown in Figure 26, about 2 million job opportunities must be provided by 2032 for the total job opportunities to reach 7 million as shown in Figure 25.

Figure 23: Consumption patterns against household wealth (1)



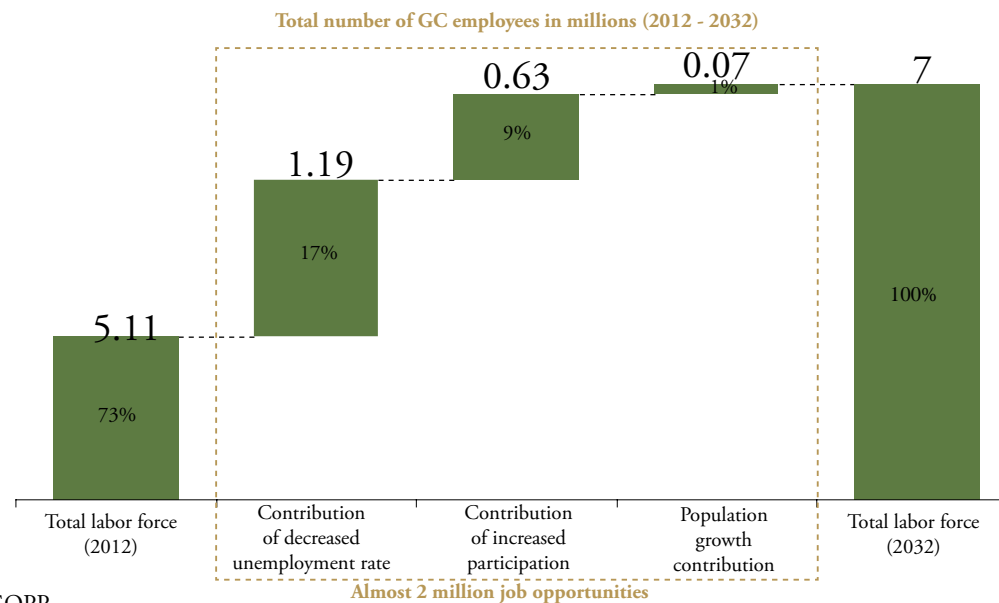
Source: Global Purchasing Power Parities and Real Expenditures 2005 International Comparison Program

Figure 24: Consumption rates in parallel with household wealth: Chinese Model (2)



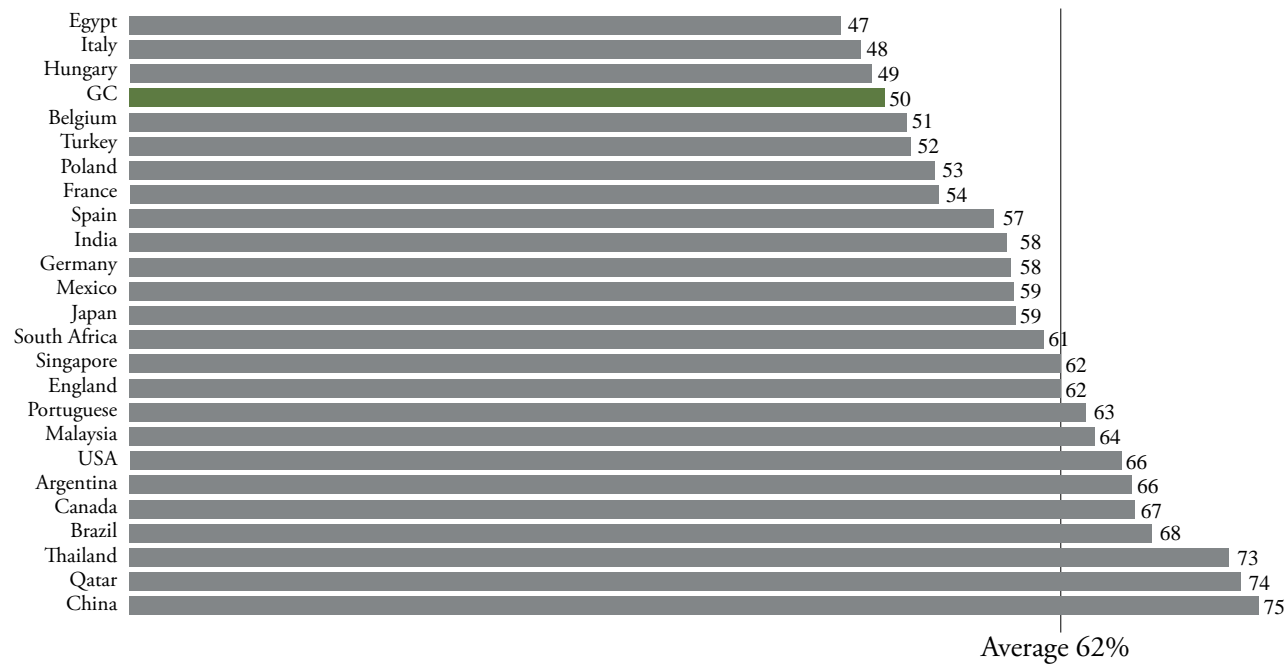
Source: Quantitative research study of consumer behaviour in China - Prepared by GOPP (n= 2594 in 12 cities, 2007), and an analytical study - GOPP

Figure 25: Job opportunities forecast in 2032



Source: Analytical study by the GOPP

Figure 26: GC labor force participation rate compared to other countries



Source: Analytical study by the GOPP

“ The GC needs to encourage new development centers outside its borders to attract population, re-distribute population within its borders, direct GC future population growth to its new urban communities, provide a better standard of living for all segments of residents and meet the requirements of expected change in population’s consumer patterns. ”

■ Challenge 2: Unplanned Growth of Housing and Services

- The steady population growth has led to challenging urban conditions, including increase of unplanned and unsafe areas, deficiency in public services and increase of traffic congestions.

The management of urban development process in the GC faces two key challenges:

- Unplanned urban growth; and
- Scarcity of land available for development due to the population concentration within the main urban mass of the GC.

The inherited problem of unplanned urban growth

The increase of urban growth over the last few decades has resulted in a deteriorated and defective urban fabric throughout the GC.

The growing number of unplanned housing areas is the most obvious phenomenon to urban development in the GC. According to studies, unplanned areas constitute approximately 40% of the GC residential areas, covering a total area of 22,500 feddans. The rise of population density rates in these areas is likely to reach 800 persons per feddan. These unplanned areas have expanded over a huge portion of agricultural land.

One of the main reasons behind the growth of unplanned areas is the imbalance between supply and demand of housing in the real estate market. There is a severe shortage in housing units for low- and middle-income groups, which drives families to build more informal housing units.

Data shows that these areas relatively represent various social categories and economic groups. In reality, the levels of total income of unplanned communities are generally not much lower than those of urban areas.

Furthermore, unplanned areas are a main rung in the economic ladder as they offer a suitable environment for small and medium enterprises, which play a key role in the GC economic activity. Generally, these areas suffer from the lack of regular

waste management as well as deficiency in water and electricity supply and lack of access to other public services like schools and hospitals.

Consequently, lack of connectivity with other narrow streets in the main urban mass that may be lacking the required planning standards could cause problems in cases of emergency and natural disasters. The most dangerous unplanned areas are the ones categorized as unsafe.



An unplanned area in the GC

The GC contains a number of 100 identified unsafe areas covering a total area of 1058 feddans and containing more than 61,000 residential units.

The GC has failed to maintain with population growth in the previous periods. The deficiency in the infrastructure and the deterioration of road network and sidewalks are recurrent problems throughout the GC. The population congestion also imposes a huge burden on the infrastructure of the transportation networks and the main

traffic arteries in the GC such as the 6th of October Bridge, the 26th of July Axis and the 15th of May Bridge. The pressure on these and other bridges exceeds their normal capacities. Moreover, the road network connecting the GC with the surrounding neighborhoods suffers from traffic jams and congestions.

The increasing number of vehicles and the resulting congestion directly affect the economic growth, as they decelerate the delivery of goods from vendors

to consumers, which, in turn, would result in economic problems. Public transportation also suffers from the huge traffic congestion. In fact, the current two subway lines serve more than 2 million passengers daily, which is twice the number of Paris daily subway passengers.

The limited vacant land and scarce natural resources impede the development process in the GC. This includes Egypt's limited share of Nile water which should be used for the purpose of irrigation and



An unplanned area in Nazlet El-Semman – Giza Governorate

not be restricted to household consumption, in addition to the scarcity of other resources like electricity which suffers from increasing pressures due to the massive increase in the GC residents. The detailed urban analysis highlights many urban challenges facing the main urban mass of the GC, including the high concentration of economic activities, the population congestion within residential areas and the limited vacant land available for new development projects.

The gravity of the problem is emphasized by statistics which show that failing to take any measures to improve the GC transportation infrastructure will lead to a 50% decrease in the average speed of transportation.

Towards Achieving Future Growth

In order to solve the land scarcity problem in the main urban mass, successive governments made the development of new urban areas for the GC residents a priority ever since the fifties of the last century. These areas mostly were desert lands, and over time, they turned to be urban areas. Today, there are seven new already-established urban communities in the GC, namely the 6th of October, Sheikh Zayed, New Cairo, Obour, Shorouk, Badr and the 15th of May.

These communities suffered from a slowdown in growth until five years ago; however, lately they started to take faster steps towards growth.

“ The GC needs to improve the deteriorated urban conditions, plan carefully for the future and direct the development processes towards new urban communities to provide diverse housing options for all. It also needs to localize low-labor high-tech industries in the GC main urban center and to take the necessary measures to improve the infrastructure of the transportation network. ”

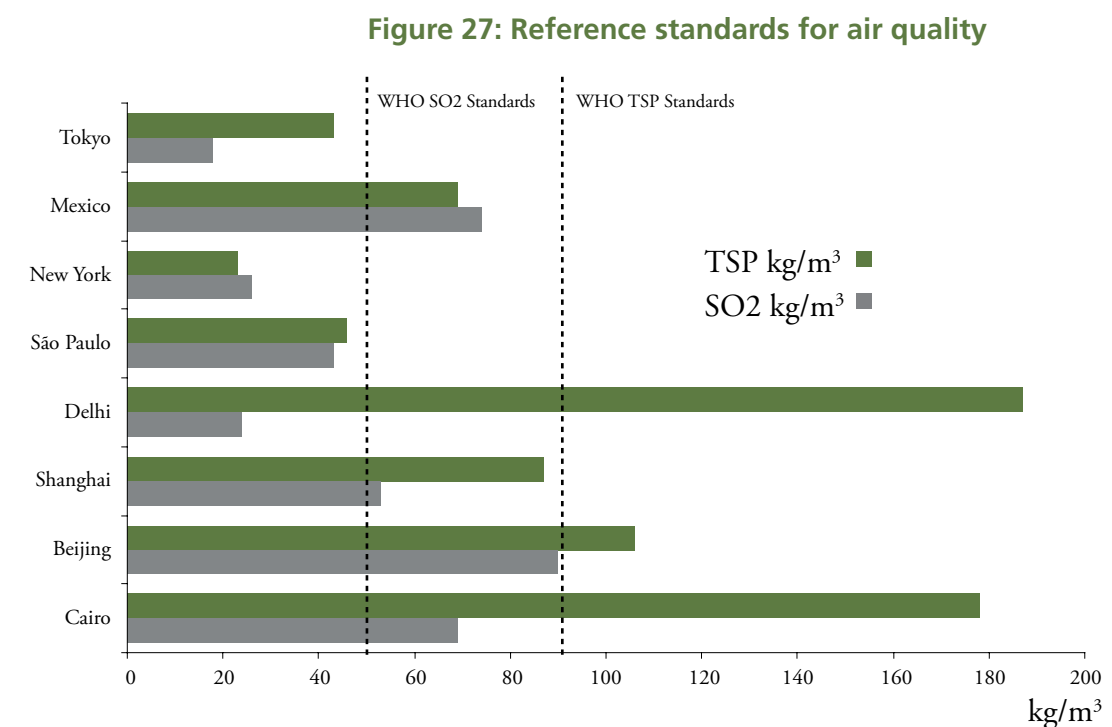
Challenge 3: Urban Environmental Degradation

- The environment has been negatively affected by the rapid unplanned urban growth in the GC. This led to serious problems that should be addressed, including air pollution, management of water and solid wastes as well as scarcity of green spaces.

Public health is one of the key objectives of a sound urban management and is necessary for achieving social justice. It is also an essential element for the continuity of economic productivity, as the wasted work hours of an employee/worker due to illness cost the local economy billions every year. The increasing level of pollution in the GC leads to serious consequences for the public health of the population. Moreover, the population's limited awareness of the environmental issues and problems helps aggravate the already-poor environmental conditions.

Moreover, the fact that the industrial zones are located close to or inside the populated areas (specifically unplanned areas) represents a serious problem that is not only restricted to the resulting air pollution and wastes, but also includes noise and lack of security for the population of these areas. In fact, factories located within these residential areas have serious negative effects and damage the health of the inhabitants.

Therefore, it is necessary to reconsider the urban planning of these areas. The Egyptian Ministry of Environment has divided the polluting factories into three categories (namely A, B and C). Category "C" includes 21 industrial facilities that cause serious pollution, as most of which are located inside or close to residential areas, with chemical factories representing 43% and food



Source: UN-Habitat, Molina and Molina

Note: TSP: Total suspended particles (either in a solid form or in the form of liquid drops resulting from smokes and dust, fuel ash or condensed vapor suspended in the air); SO2: Sulfur dioxide

factories representing 33%, which seriously impedes sustainable development projects in the GC.

Power generation and management is also a major issue in the GC. Most facilities still rely on fuel to generate electricity; such facilities are implicitly responsible for the emission of the greenhouse gases. Due to the future increase in the demand for

electricity, the GC will have to produce more eco-friendly energy taking into account the expected scarcity of fossil fuels all over the world in the future.

Moreover, the lack of environmental control on vehicles and the chronic traffic congestion lead to air pollution in the GC, as shown in Figure 27.

Future Vision

Chapter One: Towards Facing Future Challenges

Poor management of water is another critical issue facing the GC. The population's water consumption has reached the highest rates in the world, exceeding the GC's counterpart cities such as Beijing and Paris.

The increase in water consumption can be attributed to a common misperception among the population that water is cheap and inexhaustible, in addition to the deteriorated condition of infrastructure networks, which causes tremendous waste of water. Given the potential threats related to the shortage of water supplies and taking into account the violation of international treaties and the expected population growth in coming years, the issue of water management will be the primary focus. There is no doubt that establishing wastewater treatment

plants and reusing such water to meet many needs will help maintain the water resources in the GC.

In relation to the management of solid wastes, two main issues should be addressed:

The first issue is the poor management of solid wastes, which leads to the accumulation of piles of solid wastes disposed of by people in the streets and the open spaces of the GC. Moreover, wrong and illegal burial of wastes leads to the pollution of air, water and land.

The second issue is related to the lack of an integrated system for the management of solid wastes. The current locations designated for the burial of solid wastes are unable to accommodate the huge amounts of waste resulting from the consumption of the GC residents. Such shortage

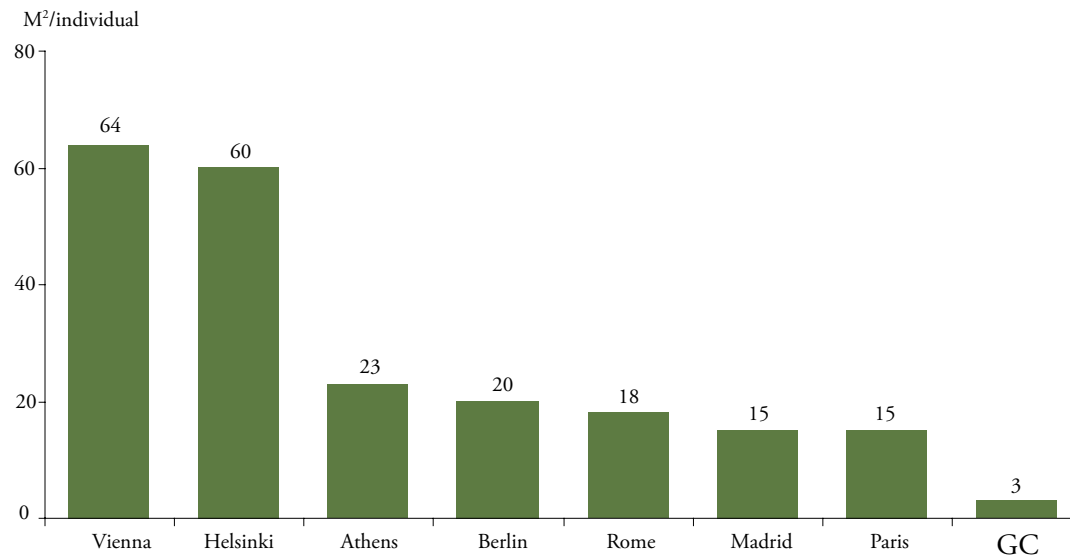
negatively affects the public health in the areas surrounding such landfills, as the wind may cause such wastes to blow away outside the landfill to reach the surrounding residential areas.

Moreover, the GC has limited green spaces and open places available for each individual. It may be unable to meet the per capita share of green spaces as compared to cities like Paris and Rome, due to the nature of the GC climate.



Sewage waste in Nile River – one form of pollution in the GC

Figure 28: Per Capita Share of Green Spaces



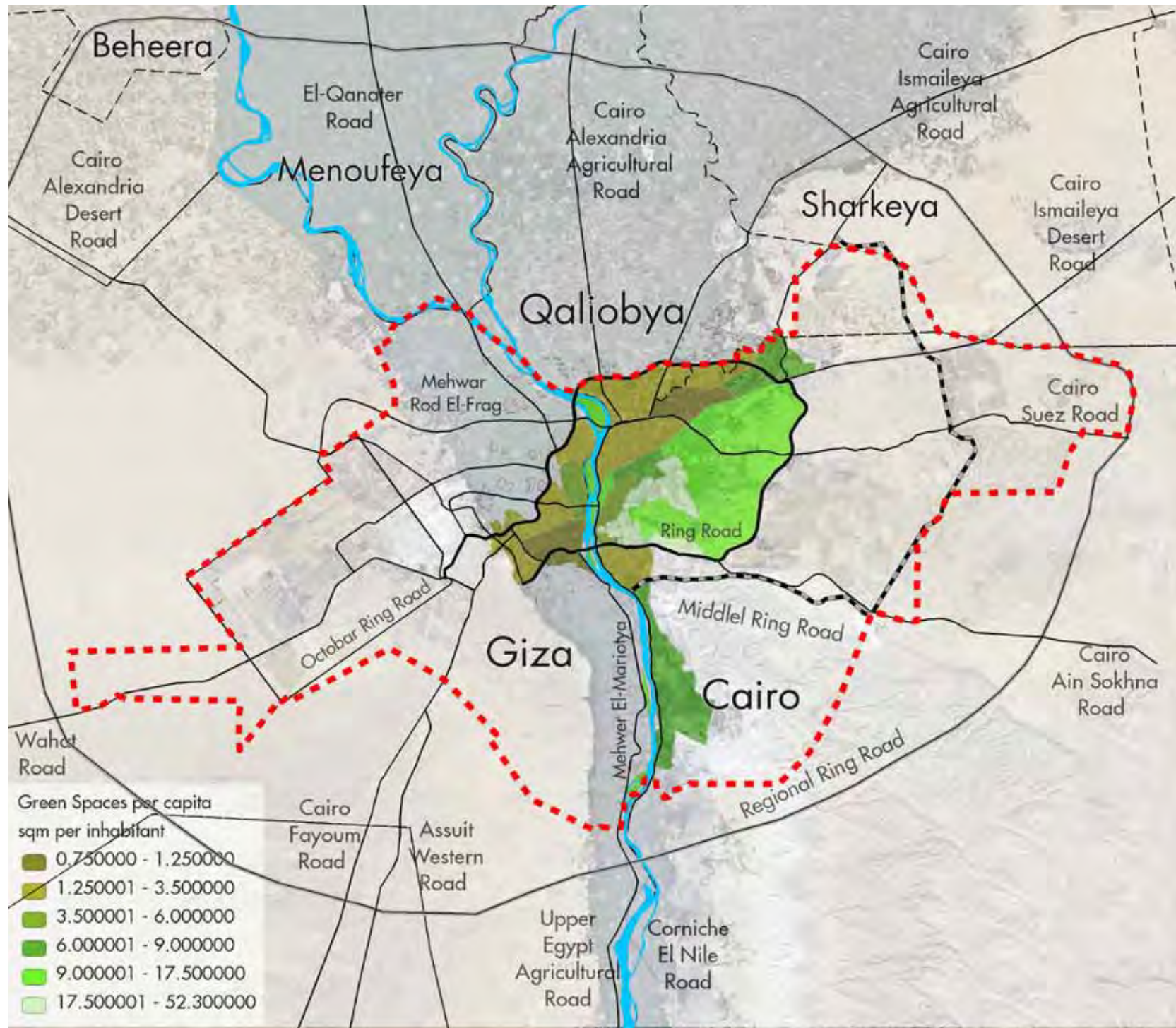
Source: Analytical Study by the GOPP

“ The GC needs to raise the population’s awareness of environmental issues, work towards producing more eco-friendly energy, preserve the available water resources, reuse sewage water and triple the current per capita share of green spaces. ”



Green Areas in the GC

Figure 29: Per capita share of green spaces and open areas in the main urban area



Source: Database of the GC Geographic Information Systems - GOPP





Chapter Two:

One vision, Eight Pillars

This chapter shows the main aspects of the GC strategic vision through presenting the main pillars it needs to achieve.

The proposed pillars are divided into two groups:

Group 1: Includes the main pillars that make up the general framework of the vision and represents the main issues upon which the GC strategic vision was built; this group includes the following pillars:

- Improving inhabitants' living conditions and quality of life.
- Creating a competitive environment for knowledge-based economy; and
- Improving environmental conditions and achieving sustainability.

Group 2: Includes complementary pillars that achieve the objectives of the three main pillars altogether. These pillars are as follows:

- Developing GC transportation network infrastructure;
- Developing new urban communities as diverse and attractive centers;
- Creating an environment suitable for tourism prosperity and preserving historical and archaeological areas;
- Reviving GC central area; and
- Providing an effective governance system for management of development projects.

■ GC Future Vision

Over the past few years, various studies have been conducted on a wide range of issues. Moreover, a number of institutional conferences and ministerial discussions were held with the objective of gathering all ideas and suggestions for the future of the GC and agreeing on the common priorities. In addition, the suggestions and opinions of the GC inhabitants were collected through polls, surveys, and panel discussions as a fundamental part of this process. The majority of population expressed their desire to live in a cleaner, fairer and less crowded Cairo by 2032.

In the surveys, the cleanliness problem came as the first priority in the opinions of approximately half the number of participants, while the issue of developing facilities and reducing repeated traffic jams came as the second priority. The residents of the GC stressed the necessity of getting a sufficient stock of the new housing alternatives in the future that better meets their needs. In fact, this was the main demand in some of the GC areas.

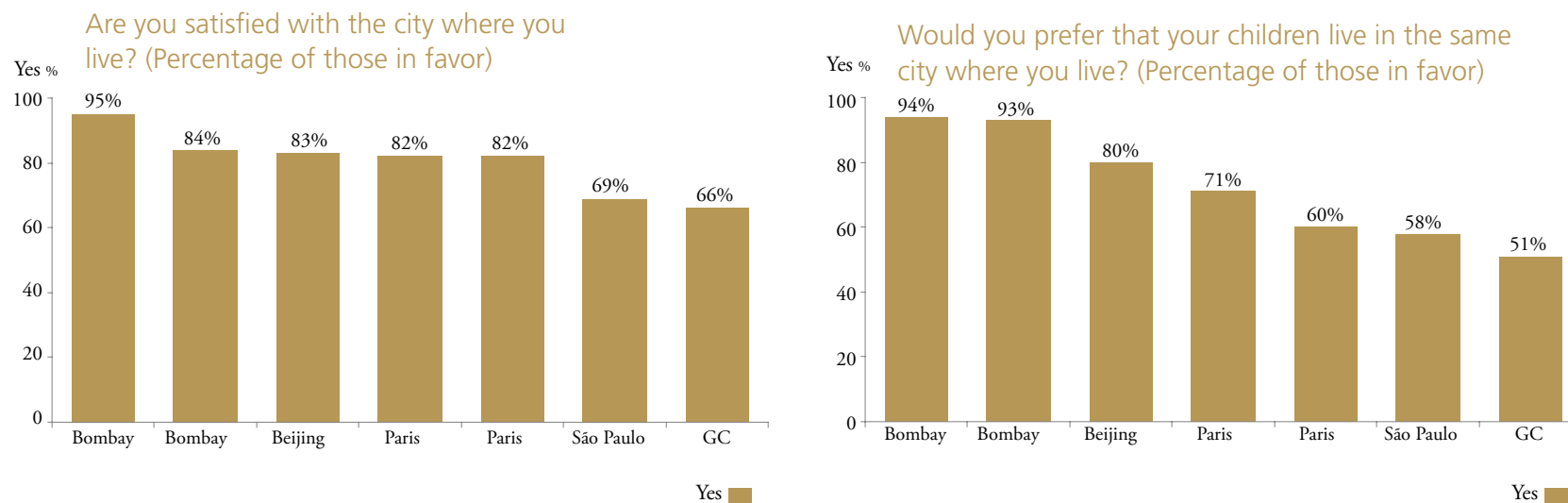
The GC residents showed full awareness of the problems and issues facing the GC. They also feel optimistic and are confident that their children can enjoy living in an area free from overcrowding and pollution in the future.

A clear vision of the GC has been developed with the ultimate objective of improving the population's quality of life. The vision aims at controlling rates of population growth and urban growth in the GC, and restructuring it in a way that improves the ability to effectively and efficiently address the GC problems and helps achieve the national vision aiming at stretching outside the River Valley and the Delta Area. The vision also aims at raising the standard of living of all GC residents in a manner that achieves social peace and justice, for the GC to become a global beacon of culture and civilization and a global, highly competitive center of business and communications.

In fact, this future vision relies on the GC's special identity, multi-cultural history and unique heritage. Moreover, the vision considers strategies to determine time-phased steps to enhance the economic dynamics of all GC development sectors, strengthen social cohesion among the GC residents and put the GC on the map of global cities. There are three concepts that, as a whole, can perfectly summarize the GC vision, namely "social justice, economic competitiveness and environmental friendliness."

“ There are three concepts that, as a whole, can perfectly summarize the GC vision, namely social justice, economic competitiveness and environmental friendliness. ”

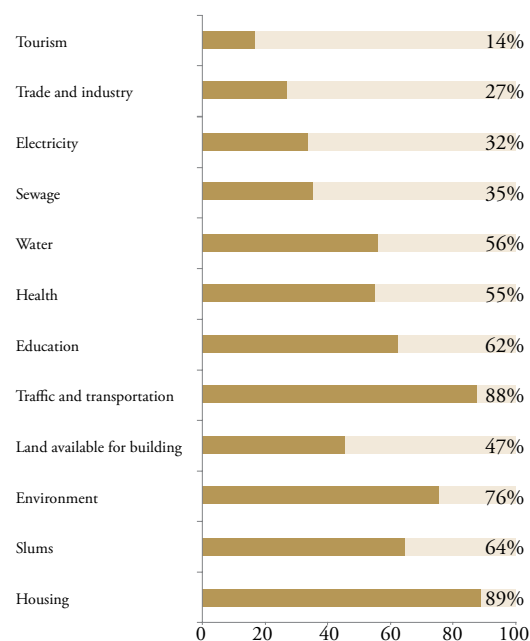
Figure 30: Poll on citizens' satisfaction with the cities where they live



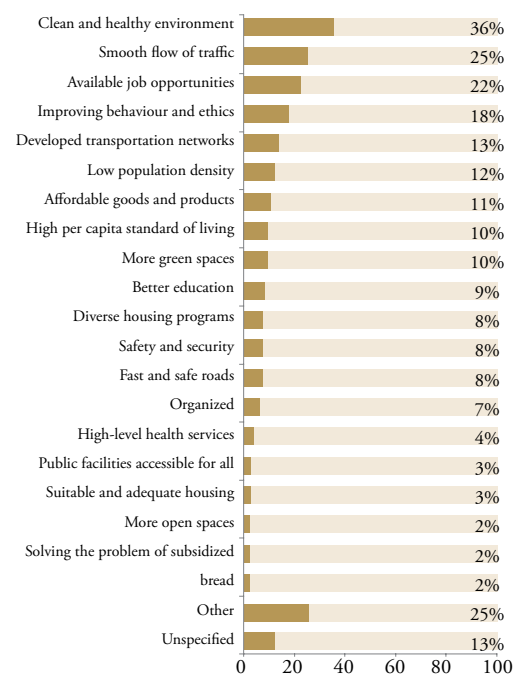
Source of the two figures above: Veolia Observatory of Urban Lifestyle: Survey study 2010

Figure 31: Polls on the future of the GC

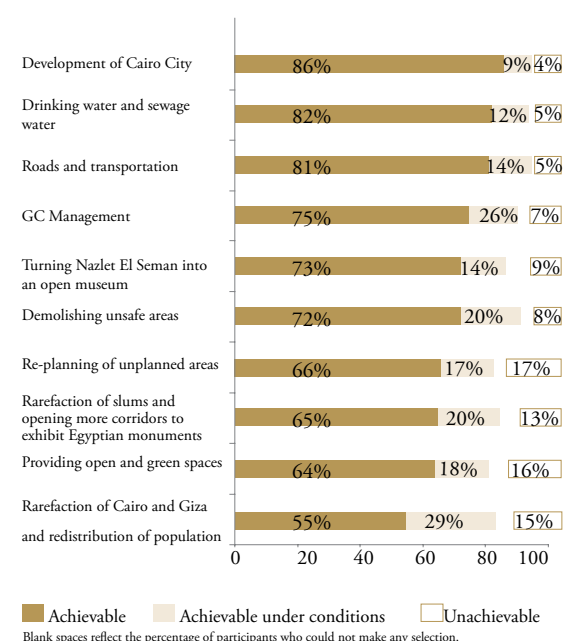
Poll on citizens' opinions about the problems facing GC development sectors in 2008



Poll on citizens' vision of GC as an urban capital in 2009



Survey of experts' vision of projects of GC development sectors in 2010



Note: Respondents were asked about each problem separately.

Source: Public Opinion Poll Center of the Information and Decision Support Center (IDSC) in the Egyptian Cabinet

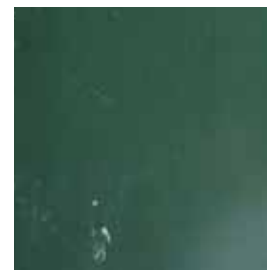
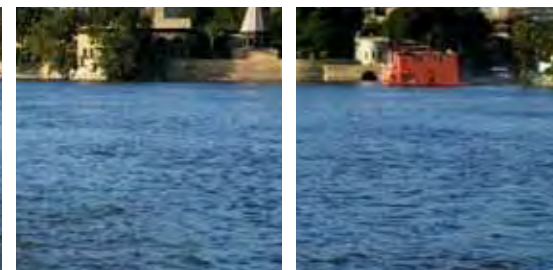
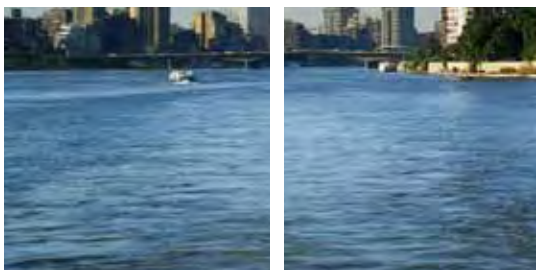
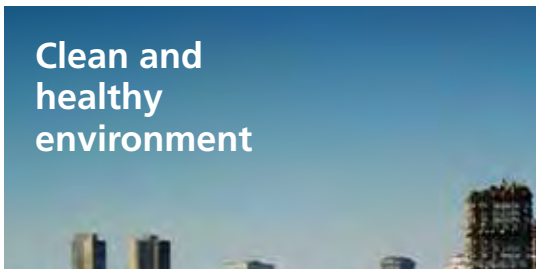
Cairo

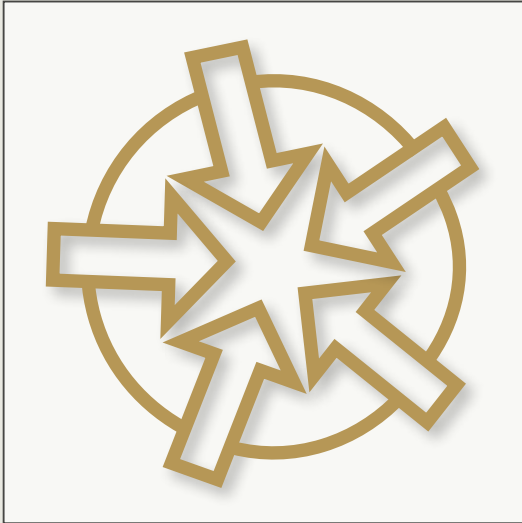
Cairo Future Vision: Greater Cairo Urban Development Strategy



Future Vision

Chapter Two: One Vision, Eight Pillars





Social Justice

The values of solidarity, justice and tolerance are key traditions of the GC society. Moreover, the GC has a fertile environment suitable for exchanging ideas and enhancing cohesion among all segments of residents in all areas of the GC. Therefore, social justice represents the most important constituent of the GC future vision. To achieve this vision, the primary ambition of the GC must focus on opening the door for all GC residents to have access to adequate housing and highly efficient healthcare, education and public transportation, in addition to job opportunities in all economic sectors. The GC will encourage coexistence and interaction between the individuals of the society of different social levels and backgrounds..



Economic Competitiveness

When assessing global cities, economic dynamics and cultural influence go hand in hand. In addition to its weight and importance within the national economic system, the GC has many assets that make it qualified to rank high on the map of global cities. Such assets are supported by a strong economic and service sector, in addition to the archeological sites and architectural milestones that enjoy a worldwide fame and are visited by millions of tourists every year. Furthermore, the GC is an important cultural and information exchange center in the Middle East. It is the eighth major urban area in the world. However, the GC has lately witnessed a retreat in its historical position and its global influence for which it has been distinguished throughout the ages. Therefore, the first step of the plan is to regain the global position of the GC. In fact, the GC will only benefit from its size by adopting courses of action in which global flows including individuals, commodities, capitals and inventions intermingle with each other. The position of the GC will enhance the economic growth through the effective support of technology-based, low-labor industries and services that enhance GC global competitiveness. In addition, the GC will create a business-friendly environment to facilitate the development of global partnerships. Meanwhile, it will depend on its unique heritage and identity to become a global beacon for culture and knowledge and to compete in the field of knowledge economy.

Future Vision

Chapter Two: One Vision, Eight Pillars



Environmental Friendliness

The GC will push forward the wheel of economic development to achieve social justice and availability of local opportunities for all. Moreover, reducing air pollution, attention to water quality and the need to provide green spaces as well as the efficiency of natural resources management, especially water, are among the issues that will have high priority in making all relevant decisions.

Throughout the last decades, the GC residents has enjoyed an exceptional climate on the banks of the Nile River. However, the current pollution results in serious consequences that do not only affect the population's health and quality of life, but also the GC economic performance and ability to attract experts and institutions from all over the world. Another issue of growing concern is the climate change and scarcity of natural resources. Therefore, the only choice available is to change the track of current policies to address environmental issues and problems.

■ Eight pillars to achieve the future vision

Formulating the GC vision and defining strategic directions is only the first step on the road towards achieving the GC comprehensive development. Achieving this vision on the ground requires all development partners to combine and balance between ambition and the real situation on the ground. To move from the stage of vision formulation to the real situation on the ground and in order to direct the decision-making process during the implementation stage, the vision comprises three main pillars and five complementary ones. Thus, all eight pillars form the main framework of all strategies aiming at the development of the GC. Those pillars are as follows:

Group 1 (Main Pillars)

1

Improving residents' living conditions and quality of life

2

Providing a competitive environment for knowledge-based economy

3

Improving environmental conditions and achieving sustainability

Future Vision

Chapter Two: One Vision, Eight Pillars

Group 2 (Complementary Pillars)

4

Developing GC transportation network infrastructure

5

Developing new urban communities as diverse and attractive centers

6

Creating an environment suitable for prosperity of tourism and preserving historical and archeological areas

7

Reviving the GC central area

8

Providing an effective governance system for management of development projects

Pillar One

Improving residents' living conditions and quality of life

This pillar is a main axis in the formulation of the GC future vision, as it aims at improving the living standards of the GC residents with their different social levels, in addition to improving the living conditions, including housing, job opportunities and basic services.

The issue of improving living conditions and achieving social justice for the GC residents comes as the first priority in the GC future vision.

The ability to have access to appropriate housing comes on top of the various dimensions affecting the standard of living. In this framework and throughout all the stages of achieving the vision, top priority will be given to providing affordable housing opportunities in appropriate locations for GC inhabitants, in addition to facilitating their access to public services, especially health and education.

Tens of thousands of the GC residents are still living in unsafe areas, with their life being exposed to danger on a daily basis. Undoubtedly, providing appropriate housing opportunities for such group of population and the development of the unsafe GC areas they live in are among the top priorities.

At any rate, consultations are taking place with the development partners living in these unsafe areas. Two options will be available for the families living in these areas. They can either receive a monetary compensation, or receive alternative residential units, which will be built inside or close to their original location, or in one of the new cities. In

case of choosing to go for the second option, the residents of such areas will be granted temporary housing, taking into consideration the proximity of these new areas to the work places of those residents. Without doubt, the success of the GC to deal with such unsafe areas with no exceptions is one of the objectives that this GC development vision seeks to achieve in the future.

Given the rapid growth of population over the past decades, the unplanned areas spread widely to represent 40% of the total GC residential areas. The unsafe areas occupy almost 1058 feddans while the unplanned areas occupy 22000 feddans.

In order to improve the inhabitants' quality of life, the development of some unplanned areas, such as Nazlet El Seman and North Giza, has already started. The current project being implemented on the vacant land in Imbaba Airport Area aims at building a new residential area and expanding the main traffic corridors in Imbaba. A public park is also being established to raise the standard of living of the area residents so that they enjoy green spaces in the city. Moreover, Ahmed Orabi Street is being extended to be linked to the Ring Road to facilitate access of residents of the surrounding areas to it. A gradual development of all unplanned areas is taking place while ensuring that residents of such areas have access to the basic public services and are linked to the transportation network. In some areas, effective measures are being taken to prevent further expansion, while enhancing the procedures for implementation of urban planning laws and regulations as well as building regulations and codes throughout the GC, with the intention of implementing such initiatives in all other similar

areas in the near future.

Expansion projects aiming at providing access to basic services and infrastructure are a main prerequisite for achieving social justice. The plan is to establish cities able to accommodate different groups of the population, through practical procedures adopted by the GC..

Thus, it becomes evident that the development strategy in unplanned areas is based on the following principles:

- Rarefaction of these area and opening traffic corridors to connect them with other parts of the city;
- Providing these areas with their needs of basic facilities and urban services; and
- Integrated economic, social and environmental development of the area residents, and providing suitable job opportunities. Social participation is the basis for any intervention aiming to develop unplanned areas.

In order to absorb the population growth and to decrease the number of family members, the housing supply in the GC will witness a significant increase with special focus on providing opportunities for the families, especially the young people entering the real estate market for the first time, to get a housing unit with reasonable and favorable conditions. The new urban communities that are responsible for the new housing program will mainly produce this increase in housing supply.

The vision also provides tools to encourage establishing residential units for low and middle-income groups in all areas of the GC. All regulations and legislations that have prevented

the achievement of economic feasibility of housing projects are being reconsidered with the aim of addressing the housing needs of this group of population. The population growth rates will necessitate the provision of additional 6 million residential units.

This need will be met by establishing 3.7 million additional residential units in the future on the vacant lands available in new cities in cooperation with the private sector, and with the support of the positive public policies. Approval will be granted for utilization of a part of the vacant residential units in the GC. From the additional units that need to be established, 3.5 million units will be allocated at affordable prices in order to meet the needs of low and middle-income families and segments of residents.

Education is also a top priority and an essential requirement to improve the living conditions of the GC inhabitants. For pre-university education,

classrooms will be built all over the GC so that the educational target of having classrooms with a maximum of 30 students can be achieved, with special focus on poor and rural areas as well as students with special needs.

By 2022, all children in the age group of 4-5 years will be enrolled in education; by that, another step forward in the field of education will have been taken, along with the current full enrollment in primary education. Civil society will be encouraged as an active partner to reduce illiteracy through support and help programs, while ensuring that students in obligatory educational stages will acquire the new basic knowledge.

Regarding high and university education, the development of educational process will continue through developing and establishing new infrastructure that includes laboratories and classrooms, with the aim of reducing the pressure on the universities already crowded with students and to improve the quality of education and develop

vocational education programs. In addition, partnerships will be established with leading foreign educational institutions, while ensuring the sustainable development of the educational instruments and curricula in a manner that puts the Egyptian universities in a competitive position with other regional and international universities.

Despite the pressures resulting from overpopulation and the increased life expectancy rate among the population, plans will be developed to ensure that the health sector will provide high quality and affordable services for all. Moreover, primary health care will be enhanced, especially in poor areas, and support will be extended to medical education. A special attention will be given to capacity development and establishment of the infrastructure required to meet special needs (in coordination with the concerned authorities and entities). The GC will also provide the umbrella of social health insurance and healthcare funds for families.

North Giza Development Project: A comprehensive strategy to solve the problems of the current situation - Imbaba Airport Land Development

North Giza area has grown due to infringement on agricultural lands; this area has high density of population and lacks infrastructure and public services for population.

The Imbaba Airport Land Development Project on an area of 204 feddans represents an important step towards the upgrading of the Area. The Ministry of Housing, Utilities and Urban Development was assigned to allocate this piece of land to be the core of comprehensive development, with the objective of meeting the needs of North Giza residents, taking into consideration that the third metro line will serve this area, the matter which will support the upgrading process.

This strategy is based on three principles:

- Providing and supporting all basic services, especially the educational service through benefitting from the vacant pieces of land in the district;
- Opening suitable traffic corridors and rarefaction of the deteriorated and unplanned areas; and.
- Connecting the area with the Ring Road and the metro network.



Images showing progress in project constructions

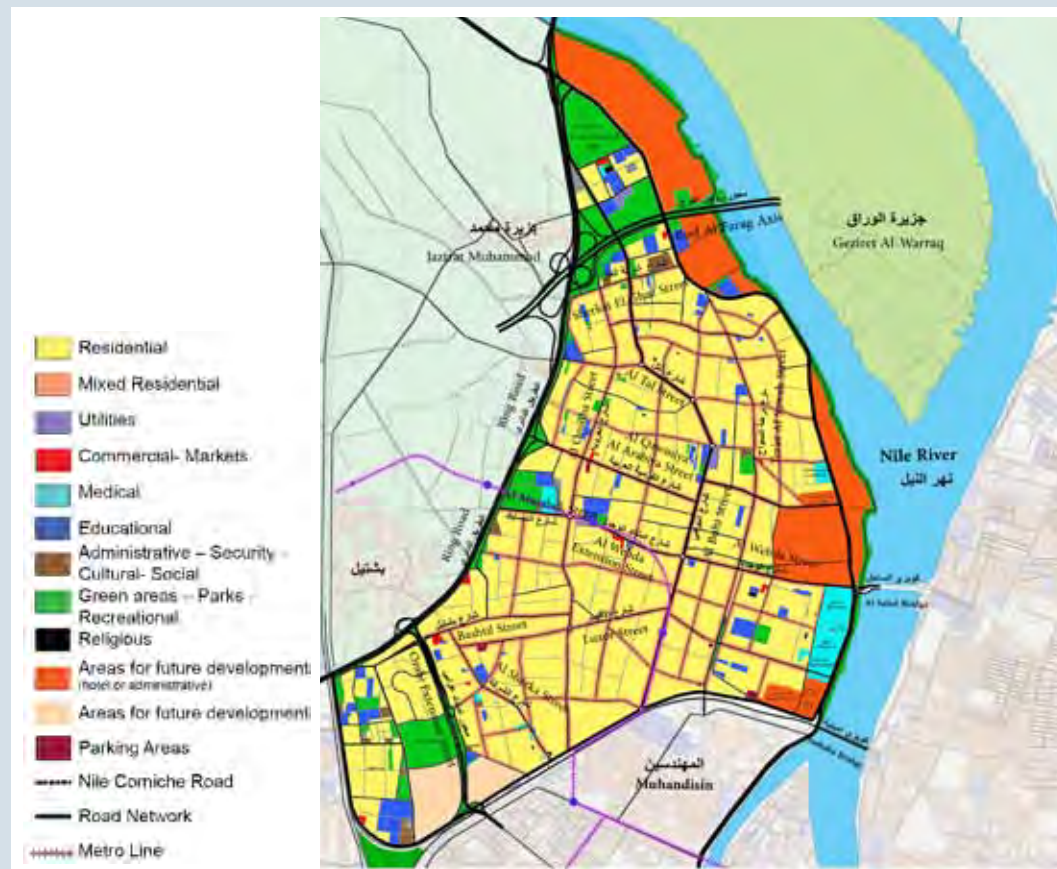
Imbaba Airport Land Development Project:

The plan aims at providing integrated services, which include forty schools, one institute for higher education, one public hospital, two medical centers, one ambulance station, one family healthcare unit, a sports city, five open playgrounds, three public parks and a set of green areas. According to the plan, new residential units will be provided, new traffic corridors will be opened and the metro network will be extended. As shown in Figure 32, the first stage of the Imbaba Airport Land Development Project will start with the implementation of three important projects as follows:



Images showing progress in project constructions

Figure 32: General Layout of North Giza District



SOURCE: MINISTRY OF HOUSING, UTILITIES AND URBAN DEVELOPMENT

North Giza Development Project: A comprehensive strategy to solve the problems of the current situation - Imbaba Airport Land Development

(1) A residential district composed of 178 buildings containing 3500 residential units to accommodate almost 14,000 people as shown in figure 33

(2) A public park on an area of 38 feddans of open green spaces providing various entertainment activities with a maximum capacity of 10,000 visitors

(3) Ahmed Orabi Axis extension project: 11 feddans will be allocated to support and duplicate Ahmed Orabi Corridor, which will help smooth the traffic flow in the area as shown in figure 35.

Figure 33: Detailed Layout of the Residential District



Source: Ministry of Housing, Utilities and Urban Development

Figure 34: Master plan of the Public Park



Source: Ministry of Housing, Utilities and Urban Development

Figure 35: Ahmed Orabi Axis Extension Project



Source: Ministry of Housing, Utilities and Urban Development

Detailed plans have been developed for the remaining stages, with the objective of establishing 17 service centers and traffic tracks such as Nasr Street, Ter'et El Sawah, El-tal Street, Talaat Harb Street and Wehda Street.

Successful Launch of the First Stage

The first stage of Imbaba Airport Land Development Project was launched successfully and a significant progress was achieved in all of the important projects mentioned above.

Images showing progress in project constructions



July 2011



Development Project of Geziret El Dahab Residential Area South of Giza- Giza Governorate

The project area is located in the south of Giza City. It is bordered from the North by Sakiet Mekki, from the south by El Munib Square, from the East by the Nile River and from the West by the Upper Egypt railway line. The Ring Road divides this area into two sub-areas, namely a residential place with various activities to the North and a garage of the Public Transportation Authority, with its total area amounting to approximately 120 feddans..

Project Objectives:

- Rehabilitation, upgrading and urban development of the area and improving the populations' living conditions in line with the recommendations of planned urban development; and.
- Achieving popular participation in comprehensive development, achieving sustainability, and encouraging free investment.

The strategy is based on three focus areas:

- Dealing with the deteriorated area through gradual replacement;
- Abiding by legal requirements in areas with access to utilities with the objective of upgrading the area and accommodating the proposed increase of population; and.
- Preserving the current situation of social services and infrastructure networks and working to develop them to meet future needs.

Main Decisions:

- Preserving settlement central services and basic infrastructure networks and working to develop them and increase their performance;
- Benefitting from the vacant pieces of land and planning for a future time-phased development for them;
- Utilizing the areas located on the main roads and benefiting from their economic constituents;

- Preserving the key milestones of the area, especially those located in the northern part and the southern part;
- Creating an urban model of good influence on the surrounding areas; and
- Connecting all the zones of the area together and with the surrounding areas by studying the current situation of pedestrian mobility between the different parts of the study area and the surrounding areas.

Figure 36: Detailed layout of Geziret El Dahab Residential Area South of Giza



Sedi Khedr (Old Sharqawiya) Development Project - Shubra El-Kheima - Qalyubia Governorate

Sedi Khedr area is located in Shubra El Kheima Western District in Qalyubia Governorate. Its total area is 7.36 feddans of the River-formed land, bordered from the West by the Nile River and from the East by El-Sharqawiya Lake. Its north entrance overlooks Qanater Road. The length of the area overlooking the Nile River is 416 meters; and its average width starts at 170 meters and reaches 40 meters in the end of the area.

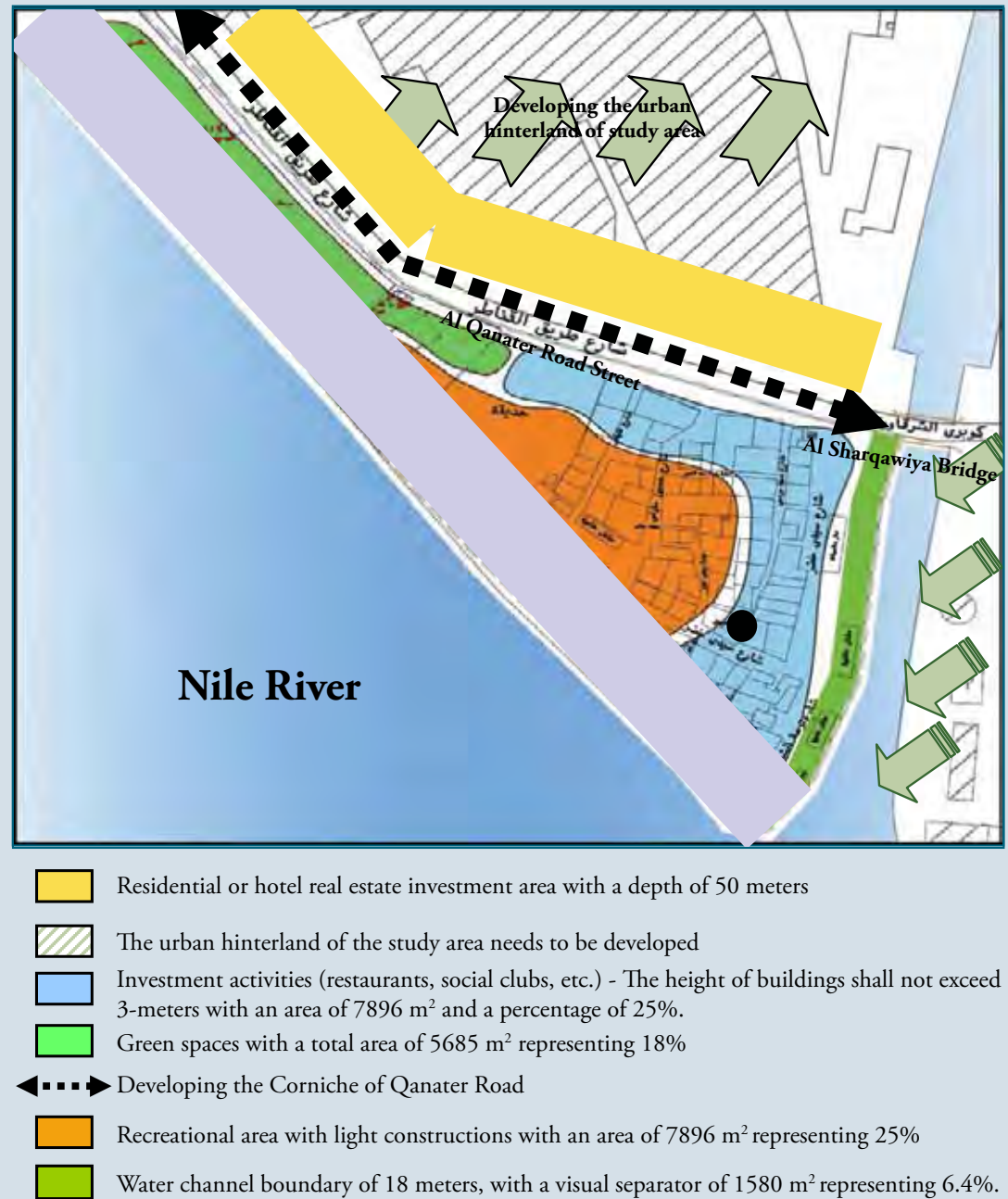
Project Objectives:

The project aims at developing the area through reusing the land in areas suffering from urban and environmental deterioration in participation with the private sector and the civil society organizations.

Main Decisions:

- Reusing and developing the area suffering from urban and environmental deterioration;
- Facilitating and improving the level of road service and parking spaces to improve efficiency of roads;
- Benefitting from the areas overlooking the Nile River in appropriate activities, and re-planning the urban hinterland of the study area until Cairo-Alexandria Agricultural Road;
- Facilitating the traffic on the Nile Corniche, especially in the area adjacent to North Cairo Power Station that separates the Corniche Road and the Qanater Road; and
- Increasing recreational services and green areas, as well as improving the residents' standard of living. Many development opportunities in the fields of tourism and leisure are available for the residents of North Cairo and Shubra El Kheima.

Figure 37: Sedi Khedr (Old Sharqawiya) Development Project - Shubra El-Kheima



Pillar Two

Providing competitive environment for knowledge-based economy

Economic growth and social development go side by side. Providing job opportunities and raising income levels are the main objectives of the future vision, so that the GC becomes one of the most important destinations in the field of business in the Middle East.

This step is mainly accompanied by improving the skills of local labor force and enhancing the necessary relevant knowledge, which consequently leads to raising the value of the Egyptian labor force and affects its social and economic levels.

Economic competition is the most important factor in all cities. Therefore, in the globalization era we are living today, any big city lacking the components and capabilities required for global competition will simply decay. As we have witnessed in the past decades, economic growth has always been accompanied with societal development. Accordingly, efforts will be made to guarantee growth and economic opportunities are available for the whole population, through implementation of economic development projects and programs in the GC.

In the framework of the challenges of the strong international competition, we assert that the GC possesses great potentials that would enable and qualify it to achieve a positive breakthrough. The relatively low cost labor force, the efficient investors and businessmen as well as the valuable technological knowledge would all help achieve such breakthrough.

High and medium-technology industries and added-value services represent the competitive advantage and the main growth opportunities in the GC. Therefore, a great concentration will be given to establishing industrial complexes able to compete globally, to contribute to infrastructure investments, to guarantee rapid spread of new ideas and to better attract foreign investors.

In the industrial sector, the establishment and development of high and medium-technology industries will be supported as a priority; this includes, for example, electronic components, medical devices, serums and vaccines. Effective and efficient support will continue to be extended to the GC traditional inherited industries, which have great economic and touristic effect, especially exports-producing industries. Moreover, gradual restructuring of such industries will be encouraged to achieve more added value and diverse production. The GC will support these industries while reducing their polluting effects. These traditional industries include textiles and fabrics, ready-made clothes, foodstuff and non-metal raw material products.

In order to push the service sector forward, an outsourcing approach will be adopted to use, for example, the services of centers for communication, IT services, financial services and healthcare services.

The GC will also support the development of its financial institutions to guarantee the availability of abundant capital to meet the financial needs of all companies starting from SMEs to huge corporations. The main objective here is for the GC to host the main international headquarters of at least 10 corporations of those listed on the list of top 2000 international corporations in terms of the market value, and to host a great number of regional headquarters of the largest multi-national companies.

Knowledge is the main differentiation factor in the field of competition today. The GC will invest intensively in improving and developing the skills of Cairo residents and developing workers' productivity through enhancing vocational training programs and courses and tailoring them to fit the needs of employers. The means for achieving excellence should be available for the Egyptian scientific minds to serve their researches and to help them in the field of teaching.

Upgrading the distinctive academic excellence of the GC will, in turn, enhance the scientific capabilities in a way that supports and qualifies Egyptian universities to effectively compete at the global level, with the objective of attracting senior researchers in different specializations.

“Knowledge is the main differentiation factor in the field of competition today. Therefore, skills will be developed in a manner to guarantee the development of economic performance.”

Future Vision

Chapter Two: One Vision, Eight Pillars



Improving residents skills through knowledge

Moreover, partnerships will be established with major international academic institutions. The establishment of Zewail City of Science and Technology is one of the major projects to achieve the vision, which mainly focuses on technology and business administration as well as enabling universities and research programs in Egypt to reach all society groups. To encourage scientific innovation, efforts will be made to build bridges between industry and academic institutions through establishing scientific nurseries/laboratories, technology complexes as well as science complexes.

With a view to develop the GC as one of the best areas enjoying good environment compatible with the growth of business projects, concerned national and regional authorities will cooperate closely with the aim of limiting routine and bureaucracy. They will also work to ensure flexible application of laws and regulations that enhance the efficiency of businesses and economic projects, as well as proper application of suitable tax conditions.

In the framework of the competition among many global cities to attract investments, the clear image

of GC's standing in the mind of foreign investors is a key point. An organization for this purpose on the regional level will be established, and will directly cooperate with the concerned government ministries to market the GC investment constituents to foreign investors. The main objective here is to turn the GC into an area that gains an international recognition as one of the best three international areas in the field of business in the Middle East, the matter that will certainly affect the living standard of the population.

Pillar Three

Improving environmental conditions and achieving sustainability

Achieving environmental sustainability is one of the key objectives of the GC future vision. Such environmental sustainability can be achieved through developing and applying environmental regulations and legislations that guarantee improving citizens' public health and increasing the per capita share of green spaces, which has an environmental influence on the quality of life. In addition, the vision aims at developing and improving other eco-friendly sustainability factors and achieving the optimal exploitation of environmental resources.

The exacerbation that the environmental problems have witnessed in the GC has harmed the public health and the economic performance and reflected on the citizens' quality of life.

Consequently, taking measures to reduce air pollution in order to meet the standards set by the WHO will be treated as a priority in the implementation of the vision. Efforts will be focused on solving the problems of industrial pollution and emissions of vehicle exhausts. Within a few years, the highly polluting industries will be completely moved outside the main urban mass. Priority of movement will be given to polluting industries such as cement factories, steel factories and foundries. In this context, concerned governmental authorities should guarantee that all factories in the GC will adjust their environmental and operational positions, and should monitor such factories to ensure their compliance with the requirements of environmental regulations and legislations that will be applied. Moreover, such initiatives should be applied to other similar factories and areas in the GC.

The objective of reducing vehicle emissions will be achieved through four main mechanisms, namely 1) upgrading public transportation means, 2) reducing the travel time through reducing traffic congestions, 3) providing incentives to encourage using less polluting fuel and 4) imposing strict control over vehicles to ensure abidance by environmental laws and regulations. Expansion in establishing green spaces will also participate in improving air quality. Accordingly, the main target here is to work on reducing the greenhouse gases in the GC with a rate of 30% within forty years.

Regarding the plan related to improving water quality, drinking water and sewage network will be extended to cover 100% of the population needs, with special focus on new cities. The plan aims at gradually covering sewage drains to avoid the resulting environmental problems and to increase the ability of purification in water purification plants in the future, to meet the increasing demand on such services.

The GC will also strive to maximize the optimal exploitation of natural resources. Through systematic development of water network to stop leakages and achieve a more controlled management of water consumption, the GC will seek to rationalize the per capita share of fresh water. In this framework, efforts for raising public awareness about the importance of following consumption rationalization methods will be maximized. On the other hand, the service price plans will be reconsidered to take into account the circumstances of different groups and classes of the society, with focus on supporting the ability to use treated sewage for the purposes of irrigation.

The GC will continue its efforts to increase the efficiency of energy use, especially in different facilities. Necessary guarantees will also be taken

in relation to rapid movement to using natural gas in thermal power plants in the GC, which are still using heavy fuel for operation. Under the vision, energy consumption pattern in the GC is expected to be eco-friendly through encouraging the use and development of renewable energy such as solar energy and wind energy. One of the future objectives is to achieve a 20% increase in reliance on renewable energy resources in the generation and consumption of electricity in the GC.

Moreover, the solid waste management possibilities and capabilities in the GC will be developed. In this context, the methods of collecting, sorting and disposal of wastes will be developed through establishing the project of integrated management of solid wastes, in addition to establishing a set of new facilities to sort and recycle wastes, and establishing huge non-hazardous waste landfills in the desert areas outside the GC, to meet the increasing needs in the future.

“The vision aims at increasing the per capita share of green spaces all over the GC as well as providing and maintaining the infrastructure needed for the establishment of such green spaces.”

Future Vision

Chapter Two: One Vision, Eight Pillars

Concerned environmental authorities will issue more strict regulations regarding toxic wastes. Two areas will be designated for legal waste-sorting outside the residential areas and centers.

The objective in this field is to increase the percentage of waste recycling in the GC to reach 60%.

Due to the effective role of environment in improving the quality of life, the vision aims at increasing the per capita share of green spaces all over the GC together with maximizing its sound environmental effect and decreasing the infrastructure required to establish and maintain such green spaces.

Therefore, it is recommended to adopt the choice of developing a number of large green spaces instead of focusing on establishing scattered green spaces all over the GC. Al Azhar Park and other similar projects will participate in providing public places for leisure. Moreover, it is recommended to expand the area of current parks and encourage the establishment of new green spaces in the GC.

Furthermore, Nile islands will be preserved, and new green spaces will be established inside the main urban mass in order to create a green lung in the heart of the city. The GC will have to maximize the benefit of its location overlooking the Nile River. Consequently, the new development projects on the River banks and the relevant regulations

will work for the benefit of improving the level of the Nile Corniche and restoring pedestrians' passageways on the shores of the River. The GC streets will also be developed and an administration will be tasked with the management of the road network to encourage walking and cycling to facilitate the movement of public transportation..

Mechanism for dialogue with a large number of civil associations working in the field of environment protection will be enhanced, with the objective of raising the levels of public awareness of the environmental issues and problems.



Saladin Citadel appearing in the horizon behind Al Azhar Park

Pillar Four

Developing GC transportation infrastructure

This step aims at providing highly efficient, eco-friendly solutions for the transportation sector. Efforts will be made to limit traffic congestions and the use of public transportation means will be enhanced to contribute to the preservation of environment, cleanliness and security.

The transportation networks intersect in many stations to enhance connection between the main urban mass and the new urban communities, and hence, achieving easy access which positively affects the social dimension.

The GC transportation network is significantly inferior to many of its counterparts in global cities in terms of the area covered and the efficiency of service; the matter which results in the continuity of over-crowdedness and traffic congestions as well as economic negative effects. Figure 38 shows the lengths of metro network per million in habitants.

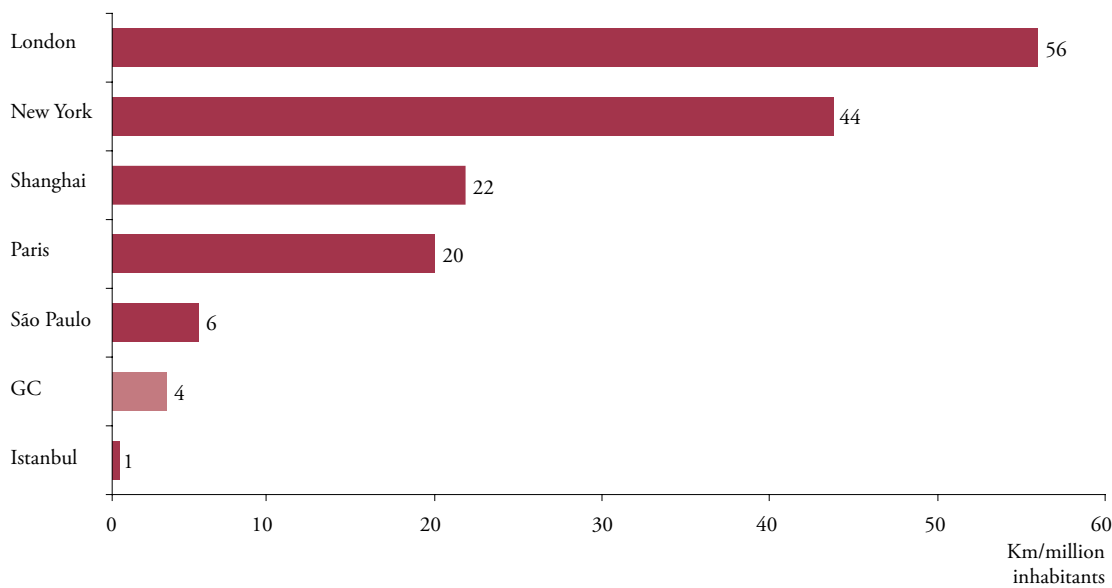
Given the abovementioned fact, huge investments will be provided to support the transportation network in the GC to ensure smooth linking between the different areas of the GC and to regain effective balance of the urban structure. In order to guarantee access of all residents to transportation services with adequate efficiency, top priority will be given to developing public transportation means

which will represent a significant advantage that will help to control pollution. Moreover, plans will be designed to make the targeted improvements in the regional network of roads.

Instant priority will be given to enhancing the secondary lines of the public transportation network inside the main urban center. Priority will also be given to extending the metro network due to its advantages in terms of capacity, efficiency and security. Thus, four new metro lines will be added gradually to the already existing two lines, with the objective of enhancing the connection between the major urban centers. The establishment of the third metro line has already started as shown in Figure 28, and the project of establishing the fourth line will be launched soon. The addition of more lines to the public transportation will also participate in increasing the density of the public transportation network in the main urban center.

In parallel with the aforementioned initiatives, a highly efficient public transportation network will be developed to connect the new urban communities with the Downtown Area through the Supertram network. During the period 2012-2022, nine lines will be established with a total length of 180 km. Those lines will mainly connect the main urban center with New Cairo, Shorouk and Badr from the East; the 10th of Ramadan from the North East; the 6th of October from the West and Helwan from the South. The Supertram lines will intersect with the metro lines in certain exchange stations to guarantee the availability of an integrated transportation network of the highest level. These projects are explained in detail in Section 4 of the present report.

Figure 38: Lengths of metro network per million inhabitants



Source: Analytical Study by GOPP

Future Vision

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In addition, the levels of safety, service and sanitation in public transportation means will be improved to encourage a large portion of the population to use these means. The objective is to encourage achieving a significant increase in using public transportation means and to ensure easy access to any place inside the GC using the public transportation means within no more than 45 minutes from Ramses Station (the main railway station of Egypt).

A network of freeways will also be established to improve connection between different areas inside the GC. It is scheduled to establish new ring roads around the main urban mass and within the circle of the current ring road. It is also planned to establish external roads around the new urban communities, with the first step being focused on establishing or supporting the new highways to connect the main urban mass with the regional network of roads.

The GC will certainly reap additional benefits from the 320-km long Regional Ring Road Project which is currently under construction. This road, which runs on the borders of the GC, will reduce the traffic congestion inside the GC and ensure a good connection with the Delta Area.

The map in Figure 40 shows the existing and the under-construction transportation network



“ GC will enjoy a transportation network of 26 km per one million people. ”

Third Metro Line

Implementation of the third metro line has already started with the objective of meeting the increasing needs of the GC for a better public transportation coverage. Based upon the distribution of huge urban centers and the traffic generators in the GC, it was found out that the Eastern–Western Direction has the biggest number of daily trips in the GC. Given the planned path for the metro, the third metro line is expected to remarkably improve the connection and provide easy access for passengers using the Eastern-Western Direction.

The third metro line is composed of four stages with a total length of 36 kilometers starting at Cairo International Airport in the East and ending at the Ring Road west of Giza; thus, covering most of the traffic-generating areas along the Eastern-Western Direction as shown in Figure 39.

The first stage includes the establishment of four stations, namely Bab El Sheria, El Geish, Abdo Pasha and Abbasiya, with a total length of 4.3 kilometers. The second stage includes the establishment of four stations, namely Cairo Exhibition Center, Cairo Stadium, Koleyet El Banat and El Ahram Street in Heliopolis, with a total length of 7.2 kilometers. The third stage will cover the west of Cairo and Giza and will include 17 stations covering Cairo University, Bulaq Al-Dakroul, Shehab Street, Wadi El-Nil Street, El Tawfikia, Sudan Street, Imbaba, El Munira, El Wehda, the Ring Road, Rod El Farag Axis, Kitkat, Zamalek, Maspero, Gamal Abdel-Nasser Street and Ataba. The fourth stage will cover the eastern part of the line and will include eight stations, namely Haroun Street, Heliopolis Square, Alf Maskan, Al-Arab, Ain Shams Station and Omar Ibn El Khattab Street Station and then Cairo International Airport.

The second stage of the third line is currently under construction, while the first stage was completed in the first half of 2012. The completion of the second stage is scheduled for 2013. The investments of the first and second stages are expected to reach 8 billion Egyptian pounds.

The third and fourth stages will be implemented in parallel starting from 2013.

Figure 39: Metro line path - Third line path

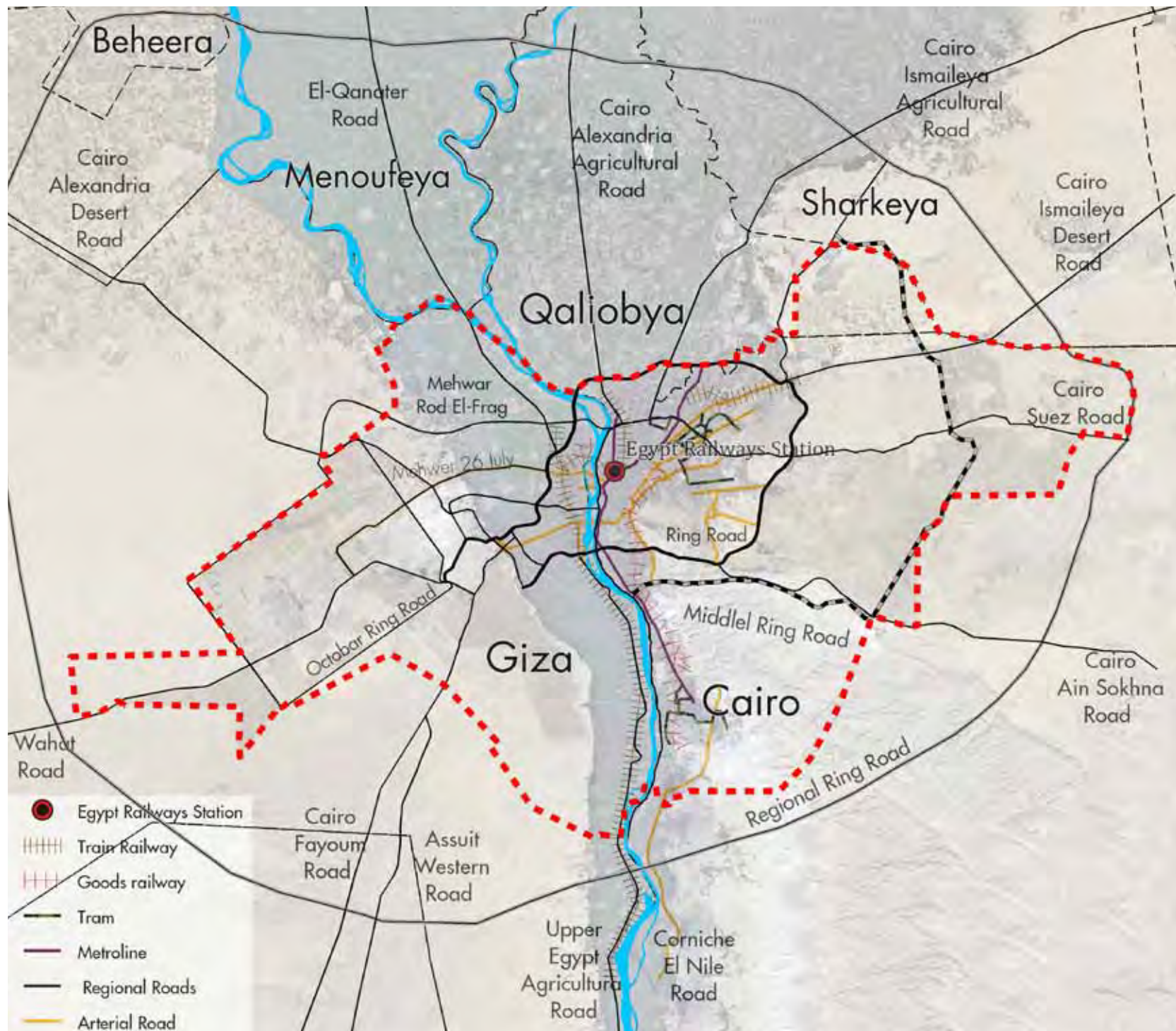


The implementation process has faced many challenges including funding, exceeding the existing infrastructure, soil issues and traffic congestions in the construction sites. However, all entities participating in the implementation process (i.e. the National Authority for Tunnels, the GOPP, Cairo Governorate, Traffic Administration as well as Water, Sewage and Electricity Companies) have succeeded to cooperate and address such challenges.



Construction works of the third metro line

Figure 40: Existing and Under-construction Transportation Network



Source: Database of the GC Geographic Information Systems - GOPP

Pillar Five

Developing new urban communities as diverse and attractive centers

The new urban communities are the strategic asset of the GC, since they contain a lot of vacant pieces of land that can be developed and utilized to attract investments outside the existing urban mass. Moreover, such new urban communities participate in reducing the industrial concentration and accommodating the increase in population in the existing urban mass. In addition, they would offer opportunities for establishing new projects that would, in turn, provide new job opportunities, contribute to the gross economic product of the GC and participate in solving the problems of unsafe areas.

The GC residents is expected to witness a steady increase, the matter that requires ensuring balanced re-distribution of activities in different parts of the GC. The current component adopts the principle of solving the problems of existing urban areas, including the over-crowdedness suffered by most GC areas in addition to the unplanned and unsafe areas. These problems can be solved by supporting the establishment of new urban communities in the GC and attracting population towards them, keeping in mind the following objectives:

- Improving the quality of life in the existing urban areas by reducing the population density and redistributing population in a manner that leads to achieving balance between existing and new urban areas and to providing affordable housing opportunities for all categories of the population, especially low- and middle-income class.
- Achieving the possibility of moving residents of unsafe areas and some of the residents affected by the development works in the unplanned areas to new areas.

- Reducing pressure on services and utilities in the existing urban areas.

To achieve the aforementioned objectives, the development of the new urban communities should be accelerated by putting into action the measures of moving a great number of the centers of attraction to these communities. This can be achieved by gradually moving the headquarters of government ministries centralized in Downtown Cairo to new urban communities.

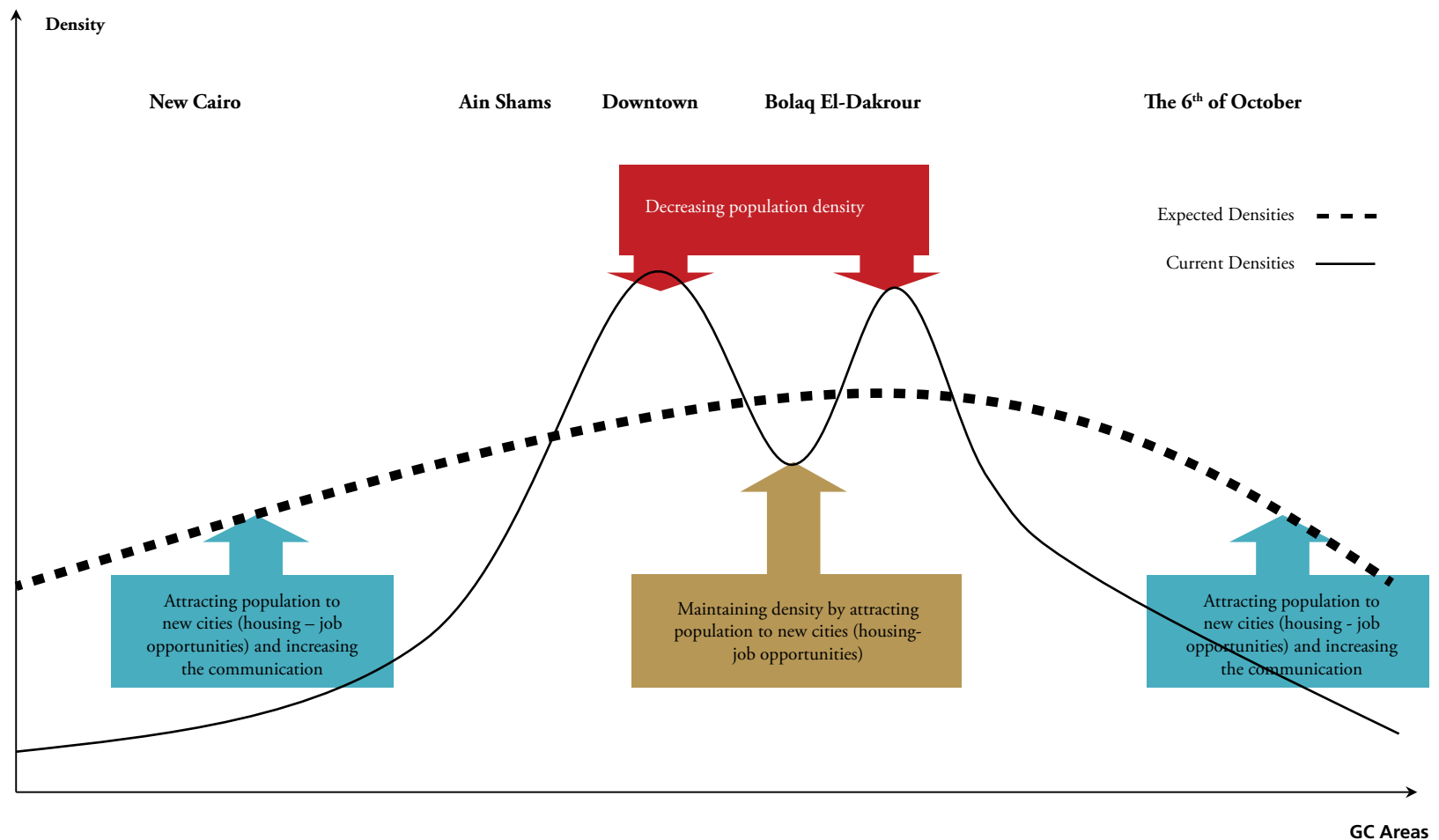
The population of the new urban communities in the GC is expected to reach 15 million people within the next forty years, which requires providing integrated services including schools, hospitals, universities, etc. to serve the increased number of population. Moreover, many investment and industrial projects need to be established to provide new job opportunities (a recent statistic shows that the population of the new urban communities reached around 1.7 million people). Moreover, the establishment of housing projects targeting low- and middle-income class should be encouraged in order to achieve balance between the housing supply and the demand of population.

The vision aims at making the 6th of October place for residence, business and leisure for all society sectors. Industries will be localized, with special focus on hi-tech, electronics and agriculture-based industries in order to benefit from the proximity of the City to areas like Abu Rawash and Fayoum. Healthcare services will also be developed by establishing a medical city; the communication and IT sector will be developed by benefiting from the Smart Village success story; and the facilities serving the tourism sector will also be developed within the framework of the present vision.

In relation to New Cairo, the vision aims at establishing communities for knowledge hubs especially in the fields of education and learning, as well as the commercial field, the financial field, the health field and the field of exhibitions. The City will also benefit from the proximity of its location to the new government district to which many headquarters of government ministries will be moved.



Figure 41: Redistribution of the population densities in the GC



Source: GOPP

The vision aims also at improving the roads leading to new urban communities and improving the capabilities of the public transportation network. The transportation network will also ensure smooth flow of traffic inside the new urban communities. The new urban communities will play a vital role

in creating a more balanced urban structure in the GC by accommodating approximately half the total number of population and by providing more job opportunities for population from all social levels and classes.

“ By 2032, the GC residents will reach about 22 million people including 8 million people living in new urban communities. ”

Pillar Six

Creating an environment suitable for tourist prosperity and preserving historical and archeological areas

Tourism is one of the key economic constituents of the GC which will generate more than 400 thousand job opportunities that will participate in improving the standard of living of the GC residents..

High-quality infrastructure, improvement of roads and reduction of pollution are among the most important prerequisites for the prosperity of tourism..

Development of unplanned areas around the historical places will be given funding priority.

In fact, tourism is one of the main economic constituents on the national level, especially for the GC. This sector can provide more than 400 thousand job opportunities in the GC areas that enjoy many constituents that would make it qualified to achieve greater prosperity in this vital field. For example, the eternal Pyramids of Egypt-symbolizing imaginary historical pictures for many people all over the world and throughout ages - represent one of the Egyptian and international cultural and historical constituents.

Through cooperation with the private sector, investments shall be encouraged to launch major development projects to restore the position of Egypt's cultural and civilizational assets.

Accordingly, in the framework of the radical transformation that Cairo Downtown will witness

due to the abovementioned development projects, the restoration of the Pyramids Plateau (Hadabet El-Ahram) is planned to take place through developing Nazlet El-Seman Area, especially after completing the construction works of the Grand Egyptian Museum. Focus will also be given to the development of tourist areas, such as Shams City Development Project in Matariya and Ain Shams..

Besides the historical monuments, the touristic opportunities and fields in GC will gradually become more diverse. In addition, alternative cultural centers of attraction will be enhanced in areas like Geziret El Dahab and Degla Park. Other options to enhance touristic fields include establishing a center for Arabian Horses and making advertising campaigns to attract the attention of tourists to the skills of artisans specialized in traditional arts, with the objective of promoting the position of the GC as a high-quality distinctive shopping center. The GC will seek to attract international fashion houses to open branches in vital commercial streets and centers..

Alternative forms of tourism will be encouraged. This includes medical/therapeutic tourism, educational and environmental tourism, tourism of conferences and exhibitions, as well as international festivals and celebrations in the fields of culture, sports, politics, arts, and science.

The high quality of infrastructure is undoubtedly a fundamental condition to increase the number of foreign visitors. The planned improvements to address the problems of congestion and safety on roads and to combat air pollution will surely help eliminate the major problems facing tourists currently. The current deficit in the accommodation capacity of hotels will also be addressed by encouraging the establishment of 2-stars and



Ancient Egyptian Monuments



Egyptian Museum – Downtown Cairo

3-stars hotels, in addition to building first-class and luxurious hotels in distinguished locations. A plan will also be developed to make extensions to the Cairo International Airport and to build a new airport in the 6th of October; thus ensuring that the GC will continue to enjoy its leading position as a pivotal center for air travel in the Middle East..

The use of signage and the visitors' guidance services will also be improved all over the GC. As a result of such initiatives, the number of tourist nights in the GC will be tripled. Consequently, the average expenditures per tourist will increase as a result of

providing more hotel accommodation offers as well as entertainment and shopping offers.

In the framework of implementing the vision on the ground, focus will be placed on the cultural and intellectual distinction of the GC. In addition, support will be extended to the development and modernization of the media sector. Besides, local cinema industry will be encouraged to upgrade the level of the GC as one of the international cinema shooting and production centers. Investments will be used to establish an international library in the GC, following the example of Bibliotheca Alexandria.

“The number of tourist nights in the GC will be tripled. ”

■ Pillar Seven Reviving GC Central Area

This step denotes reviving GC central areas and creating green spaces and pedestrian paths in a manner to positively affect the GC economic value and attract investments that will contribute to providing the funding needed for the development of GC's transportation network and infrastructure. Such projects will benefit the GC residents, especially those living in poor districts. Moreover, upgrading the GC central area will also lead to generating job opportunities besides enhancing the social integration and decreasing the marginalization of some social classes.

Since its inception, Cairo has always been a cultural and historical beacon in the Middle East and on the international level. The rich civilizational and historical diversity has participated in transforming Cairo into an international city, even a long time before the globalization era. The Pyramids, the Citadel, Cairo Tower, and many other monumental places were among the most significant monuments attesting to the great, unique history of the City.

However, the GC central area has witnessed gradual deterioration. Old monuments and historical buildings were left without care or maintenance. Access to the central area is becoming more difficult. Moreover, the parking areas have significantly decreased as a result of crowdedness and traffic congestion.

It is suggested to start the program of reviving the central area which will change the landscape of these places, while maintaining their historical and social value. The first objective is to gradually reduce pressures on the GC central area. To achieve this objective, the vision expressed in this plan suggests developing unplanned areas, in addition to encouraging the GC central area residents to move to the new urban communities; thus reducing the loads and pressures on this area and achieving a more appropriate distribution of population all over the GC. Moreover, a set of urban programs focusing on revival and restoration projects will be implemented. For example, an ambitious program is being prepared targeting the restoration of buildings and providing more green spaces and pedestrian paths. Investments will be made to improve the public transportation network through establishing underground tunnels in the GC central area, as well as adjusting the main traffic arteries to provide better tourist facilities, more luxurious commercial places as well as cultural and recreational areas.

For example, the vision aims at achieving a comprehensive development for Khedive's Cairo area, together with reviving roads and squares and establishing underground parking areas. Such initiatives will be expanded in the future to include all similar areas such as Fatimid Cairo and all areas of Old Cairo.



Some important buildings on the banks of the Nile River

Future Vision

Chapter Two: One Vision, Eight Pillars



GC – Panoramic shot

The vision aims as well to redevelop the Nile Corniche, to increase the green spaces and the parking spaces and to rehabilitate the place to become an entertaining area for the GC residents.

Moreover, guarantees related to gradual restoration of buildings will be provided, through supporting and enforcing legislations that guarantee commitment of the owners of these properties to service maintenance needed for their real estate properties.

“Through the ages, Cairo has always been a cultural and historical beacon.”

Pillar Eight

Providing an effective governance system for the management of development projects

The implementation of the projects to be proposed in the framework of the GC future vision requires an efficient governance system to ensure effective participation by the development partners, especially the population, in a completely transparent and positive framework.

Within the next few years, many development partners will be engaged in implementing various projects that will participate in turning the proposed vision into reality. The development and implementation of Cairo vision necessarily requires effective participation of the government ministries and governorates. The participation of the civil society and the private sector is of equal importance. Consequently, the efficiency of coordination and the speed of decision-making will be main factors to ensure the implementation within the scheduled times.

The administration body of the GC future vision will develop an organizational structure defining clearly the responsibilities of the parties mandated to manage the key project that participate in the achievement of the vision. Each project will have specific institutional leadership based upon the generally accepted projects charter and in a manner that fulfills the major ambitions of the project, the main implementation stages and the main items of the budget.

The leaderships of these projects will bear the responsibilities of organization and administration, in addition to following up the work progress and preparing regular reports..

Guarantees to ensure speed of decision-making will be provided, taking into consideration the interdependence between all projects. It will surely be a risk to interrupt or delay any project due to lack of coordination among the concerned parties or the development partners, as such lack of coordination will negatively reflect on the GC.

In this framework, measures will be taken for institutional restructuring to support the centralization of the decision-making authority and ensure complete coordination. The possibilities of securing multiple resources for annual funding of the key projects will also be arranged, whether in terms of the investment needs or the revenues generated from these projects.

Finally, the coordination mechanisms will guarantee defining and applying the key policies and rules essential for ensuring the implementation of the vision.

Given the great importance of the GC for Egypt as a whole, the supervision and management structure of the GC strategic plan will be developed at the highest levels inside the departments of the Egyptian Government. To ensure the efficiency of coordination across different government bodies and authorities, a specialized body will be established to manage this huge project. This body will monitor the work of the government ministries and public authorities in the framework of their participation to put this plan and the accompanying vision into action..

Measures will be taken to ensure the engagement of the GC civil society in the project administration. Undoubtedly, the engagement of all development partners will participate in ensuring harmony and commitment to the common vision of the GC.

Continuous monitoring will be implemented to follow up and assess how far the quantitative goals have been met. Causal reviews will also take place on a regular basis to measure the progress towards achieving the vision. In addition, regular studies will be conducted on the possibility of amending this plan based upon the progress achieved and the external factors, bearing in mind the long-term commitment to the ambitions defined in the GC vision. Accordingly, the GC will have all tools and mechanisms to guarantee the timely completion of the plan and its relevant projects.

“ The implementation of the vision will be supervised by concerned government ministries and authorities in light of their respective participation through an independent entity.”

Summary: Overview of GC in the Future

The GC future vision aims at developing the GC in a manner befitting its position as a capital that combines the constituents of global cities, the comprehensiveness of services and utilities as well as the sustainability of resources. Meanwhile, the vision aims to upgrade the GC to be able to meet the needs and wishes of different categories of citizens. These targets can be achieved by translating this vision into specific priorities that will direct the policies and decisions during the implementation stage.

The following points show the ten objectives summarizing the priorities to be achieved:

- Having at least 8 million people living in the new urban communities within 20 years, with increased diversity in the family housing patterns, including the increase of the housing affordable for all population categories, especially those of low income;
- Constructing at least 3.7 million additional residential units in the GC at affordable prices, including 2.3 million units for the middle-income families and 1.2 million units for the low-income families, either in the form of social or non-profit housing or through other options and alternatives;
- Achieving significant increase in the rate of public transportation use to move to work places between the new urban communities and the Downtown Area at a time not exceeding 45 minutes;
- Complete evacuation of population from all unsafe places that pose a hazard for the life of its residents;
- Success of the GC to create at least 4 million job opportunities and to increase the share of business services and the hi-tech and tourism industries;
- The GC to host the main international headquarters of at least 10 corporations of those listed on the list of top 2000 international corporations in terms of the market value, and to host a great number of regional headquarters of the largest multi-national companies;
- Meeting the objective of achieving more than 50 million tourist nights in the GC annually through providing a balanced mixture of tourist attraction factors including monumental locations, diverse activities in the city, recreational places and large-scale commercial offers;
- Having the GC classified as one of the top 25 global cities;
- Success of the GC to reduce its greenhouse gas emission by 30% compared to its emissions rate in 2012; and
- Achieving increase of the GC's reliance on renewable energy by 20% of the total rate of electricity consumption in the GC.

Overview of GC in the Future

Redevelopment of unplanned areas

After the completion of the development of many large unplanned areas, no citizen will be allowed to live in unsafe areas, as the population will have opportunities to get decent housing in suitable locations.

Complexes of scientific and knowledge activities

Complexes of activities will attract and highlight talents and exchange experiences through specialized participation in the fields of infrastructure and innovation in the GC industry and service sectors. Specialized complexes will be established, specifically in the fields of information technology, financial services and medium and high-technology manufacturing, with universities playing their role as a main partner in these complexes.

Establishing vast green spaces all over the GC

This objective can be achieved by establishing many parks in the different parts of the GC, declaring the Nile Islands as natural reserves intended only for the purposes of environmental tourism, and establishing a green belt along the Ring Road.

Constructing a huge network of metro and Supertram lines

Six metro lines will be established with the objective of ensuring access to all central areas in the City using public transportation means. These lines will be connected with the Supertram network which will provide rapid movement between new urban communities and the main urban mass.

Establishing new developed urban communities

Eight million people will live inside the new urban communities within 20 years as a first stage. This number of population will represent a social mixture for the GC community, and will have access to a wide range of public services and job opportunities.

Diversity of international tourist offers

Efforts will be made to restore the position of the Pyramids Plateau area. Moreover, Khedive's Cairo and the Islamic Cairo will be developed. Other patterns of tourism, will be adopted, including environmental tourism, shopping tourism, therapeutic tourism in addition to business activities such as conference tourism.

Changing the overall composition of Downtown Cairo area

Pressures and crowdedness in Downtown Cairo will be addressed by improving the public transportation network and moving many centers of activities. Downtown area will combine developed tourist attractions (such as Khedive's Cairo areas), commercial and retail opportunities as well as business centers and residential places.

Key Performance Indicators in t

Population
(in million)

16 :2012
22 :2032

Population in new urban communities
(in million)

1.7 :2012
8 :2032

Number of Families (in million)

4.2 :2012
6.2 :2032

Urban area
(in feddan)

192 :2012
442 :2032

Total population density in urban areas
(persons/feddan)

82 :2012
77 :2032

Number of jobs

5.1 :2012
9 :2032

Area of unsafe places
(in feddan)

1058 :2012
0 :2032

Area of unplanned places
(in feddan)

22,000 :2012
1,100 :2032

Transportation (km in)

4 :2012
24 :2032

Reduction of greenhouse gas emissions
(CO2 rate)

2012: N/A
2032: -30%

Solid wastes recycling

20% :2012
45% :2032

Renewable energy

2 :2012
2 :2032

Future Vision

Chapter Two: One Vision, Eight Pillars

the GC 2032

Number of available
rooms (in million)

2012
2032

Transportation
km/million
habitants)

2012
2032

Number of tourist
nights spent in the
GC
(in million)

34.7 :2012
58.7 :2032

Renewable energy
used

2012: N/A
2032: 20%

Rank among
global cities

43 :2012
Among the top 25 cities :2032

Number of compa-
nies listed on the list
of top 2000 interna-
tional corporations

5 :2012
10 :2032





Chapter 3:

GC Economic Development Strategy

The issue of growth is the main challenge facing the GC during the coming decades, especially the economic growth which should provide a favorable climate for financing, to enable the implementation of development projects and programs and to provide opportunities for all residents segments.

Economic growth results from innovation, capacity-building and opening new markets or developing new services. This is usually accompanied by social development, inevitably leading to achieving the quality of life.

This introduction of the present chapter presents the general economic structure of the GC. It also addresses the present situation and future strategic directions of the eight development sectors, which are critical and fundamental for the GC economic activity. These sectors include:

- Industry
- Trade
- Banking and financial services
- Communications and information technology
- Health
- Education
- Tourism
- Culture and media

The remaining sectors of related studies, including urban development sectors, land use and housing (land and shelter sector) as well as the sectors of transport, communications, environment and governance, will be discussed in Chapter 4.

Methodology of Work

A cooperation agreement was confirmed between the GOPP and the Egyptian Cabinet's Information and Decision Support Center (IDSC). They discussed the critical subjects related to the GC development through holding a series of workshops and specialized seminars for each of the main sectors separately. These workshops and seminars were organized by the Cabinet's IDSC from November 2008 to February 2009.

The main goals of the workshops for each sector were as follows:

- SWOT analysis;
- Reaching an agreement regarding high-priority projects;
- Evaluating the comprehensive competitiveness at the local, national and international levels; and
- Specifying the future vision of each sector.

The results of these discussions and the inputs proposed by all development partners were taken into consideration and were deemed as the main inputs and suggestions for the SWOT analysis carried out for each sector. According to this analysis, in addition to the inputs and suggestions by experts of each sector, a comprehensive description of the GC current situation was recorded in the form of detailed reports about various sectors.

GC Economic Structure

Based on the GC's powerful industrial structure, strong base of services and huge labor market, the GC can be considered to be the economic engine of Egypt for the time being. In 2006, the GDP of the Capital City reached 31% of the GNP. The GC economic growth rate continued to be more than the average on the national level. This means that the GC development is closely linked to the development of the remaining regions in Egypt. Therefore, seeking to create new job opportunities in the GC will be positively reflected on all sectors all over Egypt.

The GC labor force reached about 5 million people, including informal sector workers. The fields of manufacturing and trade are still dominating the labor force as shown in Figures 42 and 43. Financial services, communications and information technology, retail trade and tourism are basic services for the labor market in the GC. On the other hand, the labor force in the fields of fishing, agriculture and mining is limited. Almost half of the labor force (44%) is concentrated in the GC areas of Nasr City, Downtown, Giza, Heliopolis and Dokki. Unemployment rate in the GC is less than that of other Egyptian governorates. In 2006, it reached nearly 7% which is less than the current national average of 9%.

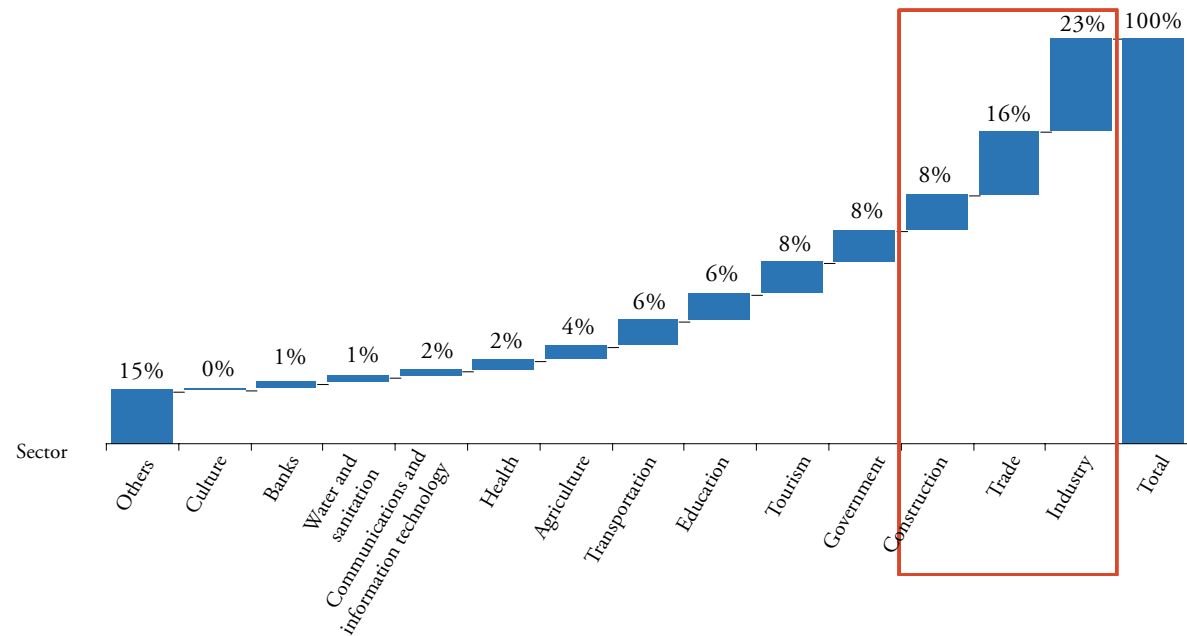
“ In 2006, the Capital's GDP reached 31% of Egypt's GNP.”

Since Cairo is the country's administrative capital, many of its jobs are related to the public sector. The GC includes more than 20 thousand governmental institutions such as the People's Assembly, government ministries and the departments of the GC governorates. They all include labor force that participates in supporting the GC economic activity.

The general climate of business and finance in the GC witnessed a noticeable improvement in the last period as shown in Table 6. However, the purchasing power in the GC is still low and labor productivity rates are still limited. Moreover, finding skilled labor force is a problem for most employers, in addition to the inability to meet the needs of special fields because of poor vocational training capabilities in the GC.

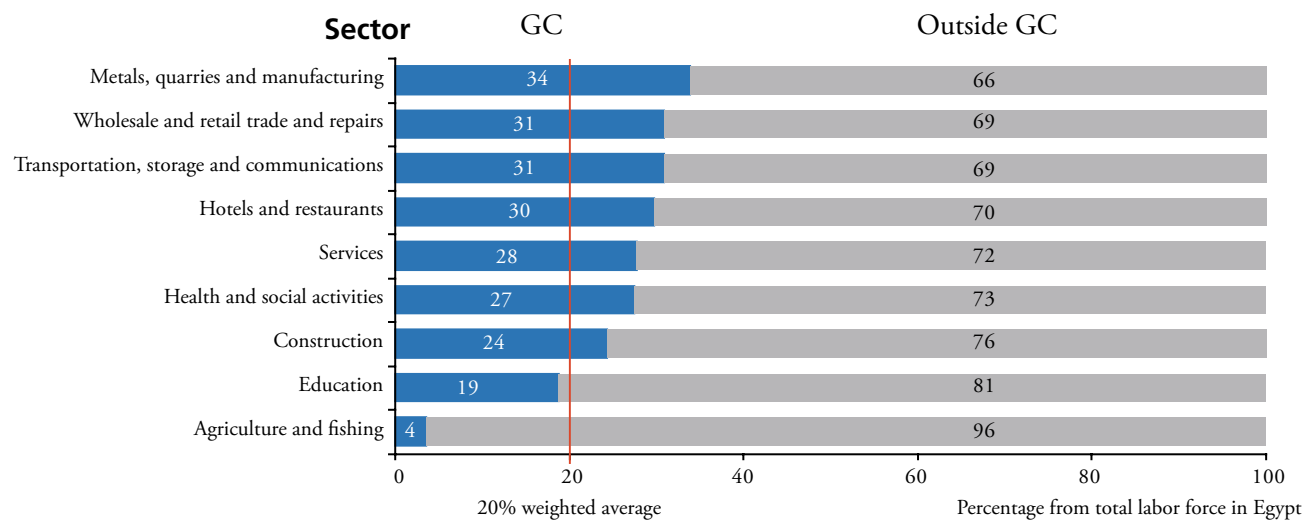
Owners of investment projects are still suffering from complicated administrative and bureaucratic regulations. Concerns are also growing about the absence of intellectual property rights in certain sectors, which limits the ability of the GC to attract foreign investors.

Figure 42: Sector-based distribution of labor force in the GC in 2008



Source: CAPMAS, Statistical Yearbook, GOPP

Figure 43: Sector-based labor distribution inside and outside the GC in 2008 (%)



Source: CAPMAS, Statistical Yearbook, GOPP

Table 6: Facilitations for business and finance activities in Egypt - International assessment of Egypt

Available facilitations for business and finance activities in Egypt	Business and finance activities according to 2012 estimates	Business and finance activities according to 2009 estimates	Estimates' degree of change
Exercise of business and finance activities	106	116	+10
Starting an activity in the field of business and finance	24	43	+19
Dealing with building permits	156	165	+9
Hiring employees	120	119	-1
Registration of ownership	87	84	-3
Access to credit	71	84	+13
Protection of investors	73	70	-3
Payment of taxes	140	142	+2
Cross-border business activity	29	27	-2
Performance of contracts	148	154	+6
Ending a business/finance activity	132	130	-2

Source: International Collaborative Funding - World Bank Report 2009

Economic indicators are rated from 1 to 183 according to how easy doing business activities is. The best economy ranks first, which consequently means that such economy has a high ranking as per Ease of Doing Business index in the regulatory environment that leads to starting and doing business activities.

This section of the report shows the development sectors in details. For each sector, the report discusses the present situation and SWOT analysis in the beginning.

Then, it presents the vision and the key strategic directions, and concludes with priority projects for each sector.



Industry

Manufacturing is a main pillar for the GC economy. Such activity is concentrated in certain areas such as Helwan and the 6th of October, while textiles and electronics industries are concentrated in Giza and Cairo respectively.

Developing the industrial sector, increasing production and achieving competitiveness require adopting the most advanced methods and using modern technology rather than simple technology industries.

The main strategic direction is to support the existing industrial base, develop medium- and high-technology industry, and ensure moving polluting industries outside of the GC urban mass.



“The sectors of industry and manufacturing provide job opportunities for almost 1.2 million employees (including informal jobs).”

Industry KPIs	2012	2032
Total area (in thousand feddans)	21	38

Present Situation

The industrial sector plays a pivotal role in the GC economy. It was found out that the sectors of industry and manufacturing provide job opportunities for about 1.2 million employees (including informal jobs). Figure 33 shows labor distribution among manufacturing sub-sectors. The industrial sector is characterized by its diversity; thus, it includes several fields such as the manufacturing of building materials, paper, cardboard, food industry, textiles, ready-to-wear clothing and furniture.

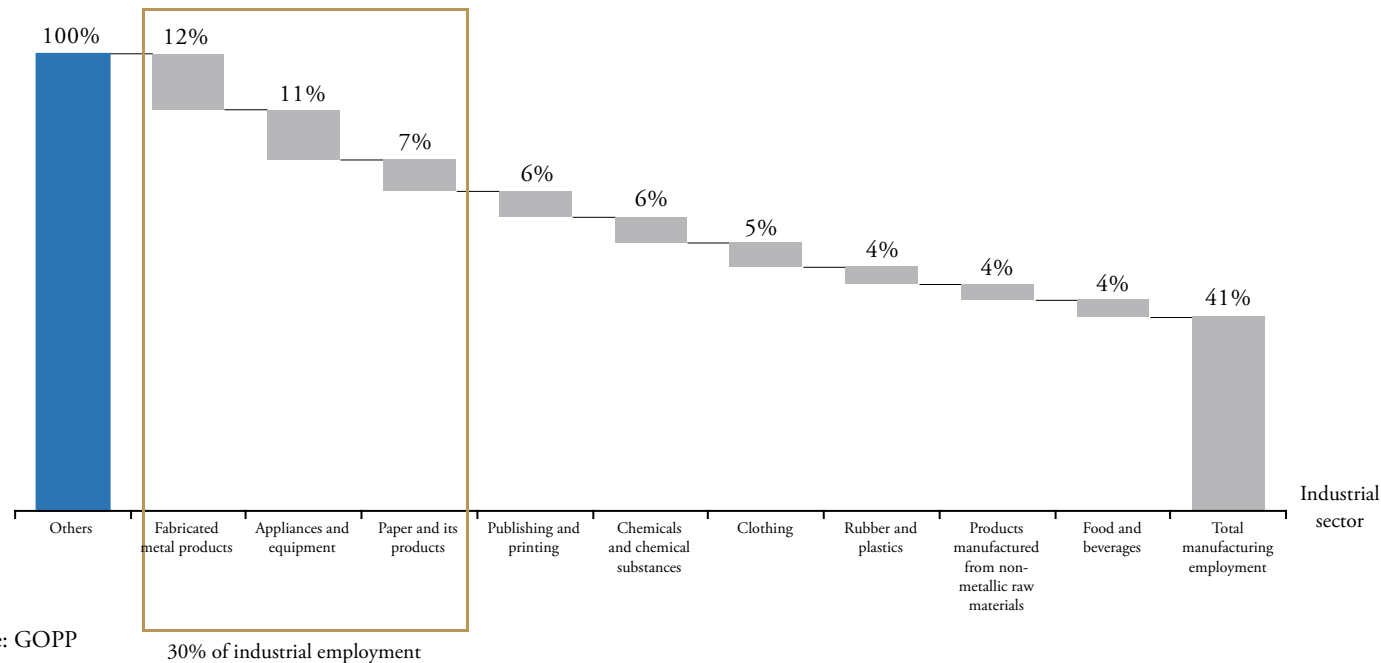
All these industries significantly contribute to exports and attracting direct foreign investments. A large portion of this industrial activity is based in manufacturing centers such as the 6th of October and Helwan as shown in Figure 34. Traditional crafts (especially Khan el-Khalili products) represent a large portion of this industry inside the GC. All in all, 13483 industrial facilities are registered at the Industrial Development Authority⁽¹⁾.

Ready-to-wear clothing is the biggest industrial sector in Cairo, since it contains 30% of factory workers in the Governorate. On the other hand, engineering, electronic and electrical industries are the largest industrial sectors in the 6th of October and Helwan, since they contain 30% of factory workers. The sector of production of food, beverages and tobacco (cigarettes) in Giza contains 49% of factory workers.

(1) JICA Statistics, 2006.

Figure 44: Size of manufacturing sub-sectors in the GC

Participation in manufacturing employment in the GC according to the manufacturing sub-sectors



Industrial Sector – Analysis of Main Results

Strengths/Constituents

- Diversity of industrial activities in the GC;
- Availability of strategy for industrial development;
- Proximity to transportation networks;
- Supporting industrial exports; and
- Proximity to markets and distribution outlets.

Opportunities

- Preparing a plan for the development of the Egyptian industry through conducting a partnership agreement between Egypt and the European Union;
- Availability of a significant local market; and
- Updating investment guides of industrial areas and disseminating them internally and externally.

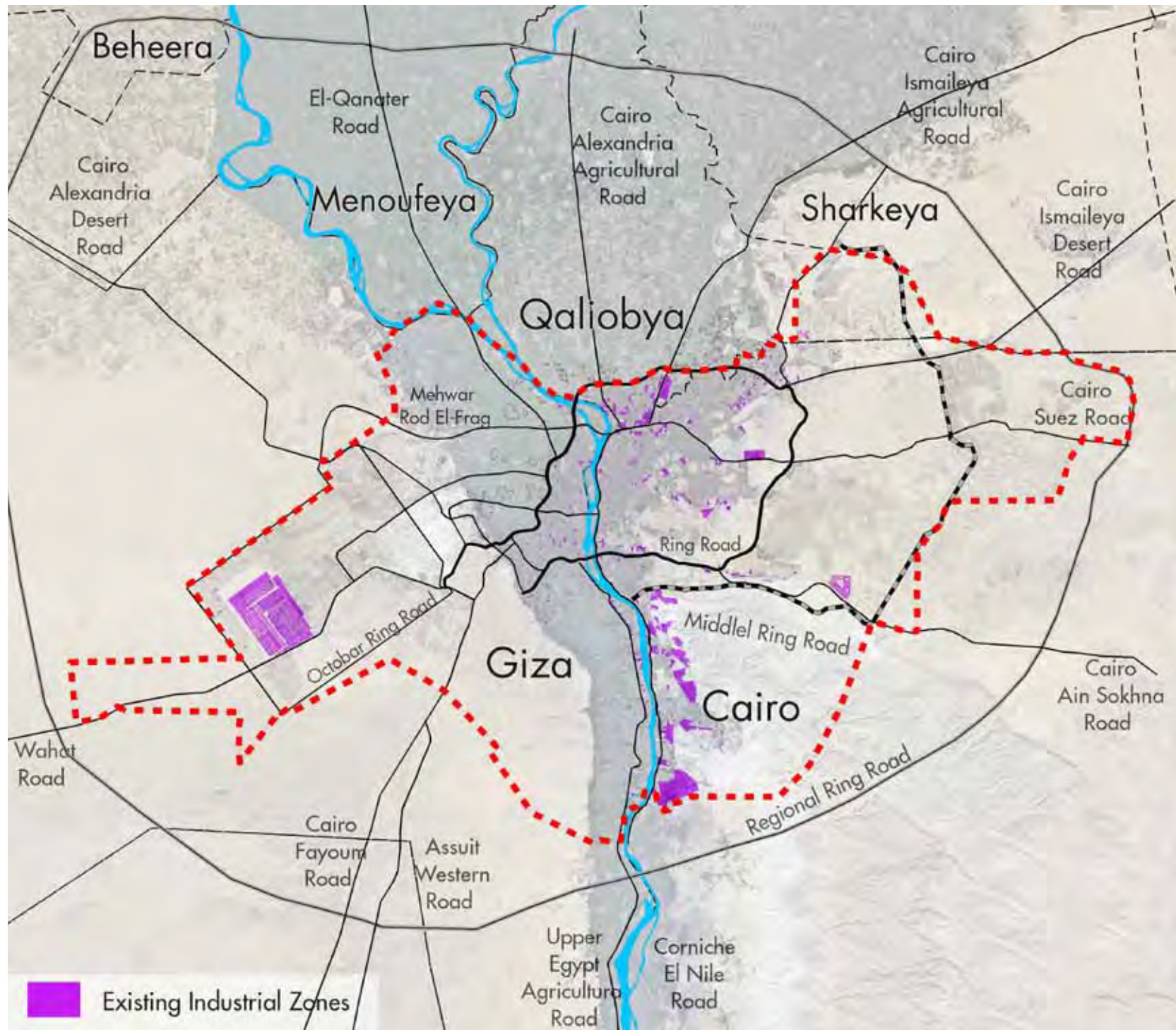
Weaknesses/Problems

- Insufficient integrated industrial areas and groups which affects competitiveness;
- Shortage of vocational training and logistic services;
- Weak technological aspect in most industries; and
- Plurality of government authorities managing industrial areas.

Threats

- Effects of the financial crisis on exports;
- Competing with other industrial countries such as Turkey and China;
- Environmental issues and problems; and
- Political events and their effect on the economic sectors in general.

Figure 45: Main industrial areas in the GC



Source: Database of the GC Geographic Information Systems - GOPP

Strategy of Developing Industrial Sector in Egypt

The industrial strategy in Egypt is based on achieving two main goals, namely local capacity-building and linking Egyptian companies/projects with global markets. This can be achieved through the reliance of Egyptian industrial policy upon three main pillars, as follows:

Pillar 1: Deepening local capacities through making concerted efforts in six channels as follows:

(A) Human Resources and Organizing Investment Projects:

Aims at increasing the level of skills of employees in the industrial sector through partnerships with the private sector.

(B) National Innovation System:

Aims at developing technological capabilities through linking the industrial sector with global technological markets.

(C) National Quality Control System:

Aims at providing a solid evaluation system to monitor adherence to standards and specifications in order to raise the level of Egyptian products to comply with international standards.

(D) Financing:

Aims at developing the capital market to provide alternative resources to finance the industrial sector.

(E) Infrastructure:

The “Industrial Development Authority” was established to be responsible for facilitating land acquisition procedures and providing the facilities required for the industrial development process.

(F) Programs for Competition among Companies:

The Industrial Modernization Center (IMC) is the main organization that directly supports industrial projects and enables them to get into local and global competitive markets.

Pillar 2: Strengthening linkages with global markets through encouraging the benefit from direct foreign investments and export development tools.

Pillar 3: Supporting social values system that lead to the desired development and maximizing positive social and environmental effects of the manufacturing process.

Strategic Directions of Industrial Sector

According to the GC future vision, the GC will be an industrial area that is technologically advanced and environmentally compatible. Figure 46 shows future industrial areas in the GC. Six main objectives were specified to act as a guide for developing the manufacturing sector in the GC as follows:

- Taking into account the environmental considerations to guarantee a clean environment in the GC industrial areas. Moreover, necessary measures should be taken to move polluting factories outside the GC urban mass, according to relevant regulations and legislation;
- Supporting the continuity of traditional industries in the GC and developing them to make sure that they are still able to provide job opportunities for skilled labor force, while focusing on raising the capabilities of such industries to export to foreign markets;
- Strengthening the competitiveness of the GC traditional industries that enjoy high competitiveness in global markets. These industries include:
 - A. Ready-to-wear clothing;
 - B. Food products industries; and
 - C. Industries of products manufactured from natural nonmetallic raw materials.
- Focusing on establishing medium- and high-technology industries such as engineering and electronic industries;
- Developing small and medium enterprises by connecting them to large-scale projects, through establishing industrial groups and connection with global production engines; and
- Encouraging the informal industrial sector in the GC to adapt to updates and developments to maintain its ability to provide job opportunities for a large segment of the unskilled labor force, especially at times of crisis.

Priority Projects

Moving polluting factories outside the GC and providing clean urban mass

This project aims at moving highly polluting industrial facilities and buildings outside the GC, in an attempt to increase its competitiveness. The project is to be carried out within a broader perspective to prevent any negative effect on any area in terms of competitiveness level or pollution rates. The project will include the steps of gradual relocation of these polluting factories, considering the following:

- Expenses of the relocation process; and
- Social and demographic (residents-related) effects resulting from the relocation process.

The project plan will be affected by main factors including:

- Choosing suitable locations;
- Specifying the available spaces to contain the relocated manufacturing facilities;
- The proximity of the new locations to the sources of raw materials needed for these factories;
- The availability of infrastructure;
- The degree of compatibility between the characteristics of the surrounding environment and the level of pollution resulting from these industrial facilities to be relocated;
- Social considerations such as the number of employees required for the relocated projects; and
- Available services in the new locations.

Promoting the role of the Productive Cooperative Union to face the random spread of industries

This project aims at facing the problems of the manufacturing activities that lack planning. This can be achieved through supporting cooperative societies for craftsmen that gather several craftsmen under one umbrella. These cooperative societies provide production tools, plan for the production process, do administrative tasks and help create an environment that leads to good products and protects employee's rights. They also collectively market the products for employees and provide raw materials at best prices through wholesale purchase.

This project requires governmental support and modification of relevant legislations. It also needs providing support for cooperative unions in this sector equally with other sectors. Moreover, an executive program will be developed to encourage cooperation among several cooperative unions in several secondary industries, in addition to investment programs.

Development of existing industrial areas in the framework of integrated industrial groups

This project aims at providing integrated industrial groups equipped with technological centers and business incubators to support the technological constituent in different industries. The project also targets providing centers for training factory workers according to the industry requirements. Moreover, the project includes establishing a group of units representing "Consolidated Services Centers" to facilitate obtaining the licenses for the establishment of industrial projects. These "Centers" will also support manufacturing companies and facilitate business and finance activities.

Other facilities will be established to support the entities inside integrated industrial groups as follows:



A textiles factory

First: Integrated industrial groups will be allowed to have retail outlets and exhibitions to promote their different industrial products.

Second: A number of storage and cooling facilities as well as transportation infrastructure will be provided to facilitate the movement of workers and raw materials to different industrial areas.

This project requires providing the needed funding through the banking sector contribution to financing the establishment of integrated industrial groups.

Protection of industries serving tourist markets

Khan el-Khalili is one of the biggest centers for the heritage of Islamic art in the Arab world, in addition to being a significant tourist destination. Khan el-Khalili market enjoys a great global fame as it contains more than 30 different crafts with more than 300 thousand workers.

Such craft industry witnessed a sharp decline lately, resulting in heavy losses that led to several layoffs.

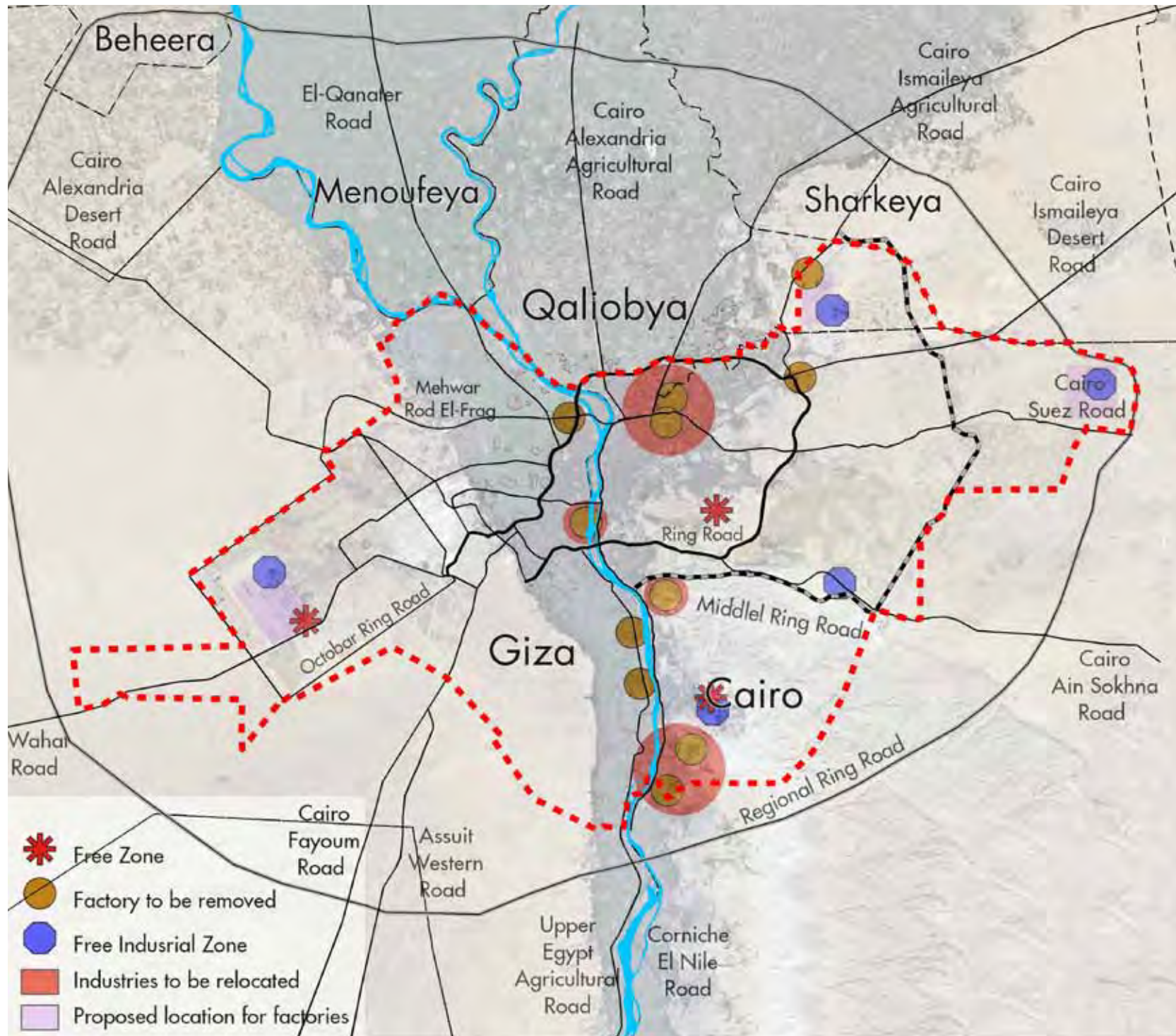
Therefore, full protection should be provided for these craftsmen, in addition to supporting their skills through continuous training programs and establishing exhibitions abroad to promote their products as well as support their export activities.



Khan el-Khalili Area

“Khan el-Khalili market enjoys a great global fame as it contains more than 30 different crafts with more than 300 thousand craftsmen.”

Figure 46: Future Industrial Areas in the GC



Source: Database of the GC Geographic Information Systems - GOPP

Trade

The GC is the trade center on the national level. It includes a good base of consumers, including a good percentage of high-income consumer segments.

The trade sector is still relatively low compared to international standards. Small retailers, instead of hypermarkets, are leading the markets.

Strategic directions for developing the trade sector necessitate applying new legal frameworks to deal with informal economy. Moreover, these strategies also require exerting great efforts to strengthen modern trade, whether on the local or the global levels, in addition to capacity building of small retailers to enable them to achieve competitiveness.



“ There are 80 thousand retail stores working in the GC. ”

Trade KPIs	2012	2032
Total area in feddan	3000	8500
Total jobs (in million jobs)	0.57	1.535
Traditional trade (in million jobs)	0.54	1.34
Modern trade (in million jobs)	0.03	0.195

Present situation

Given the GC residents size, it is clear that it includes the largest wholesale and retail markets on the national level driven by 16 million buyers. The GC also represents the more affluent social classes (first and second social classes represent about 14% of the GC residents collectively, compared to only 7% of Egypt’s total population). The GC also enjoys other constituents such as its central geographic location, easy access to nearby harbors and availability of cheap labor force. All these constituents highlight the GC national role and attract shoppers from outside its borders.

Trade is a significant source of attraction to neighboring communities of the GC. A study was performed lately by the Ministry of Trade and Industry in the City of Mansoura showed that more than 10% of the total spending of the residents included in the survey is made outside the City. Nonetheless, this number increased to 30% regarding the richer social classes who prefer to go shopping in Cairo especially to buy ready-to-wear clothing, home appliances and to get better products in terms of variety and prices.

Most commercial transactions in the GC are currently made through small traditional outlets and a group of wholesale markets. There are 80 thousand retail stores, 300 of which are modern retail stores (including hypermarkets and supermarkets) working in the GC. With this number, it is clear that the GC has the highest focus of trade in the country, especially modern trade, with an estimated area of 9.8 square meters for each 1000 inhabitants, which is much higher than the traditional trade with an estimated area of 2.2 square meters for each 1000 inhabitants. This is the area available on the national level; however, such rate is much lower than international standards.

Trade Sector – Analysis of Main Results

Strengths/Constituents

- Easy access to harbors;
- Strong competition in the GC;
- Solid domestic market;
- Unique geographical location; and
- Availability of purchasing power.

Opportunities

- Expanding in domestic market; and
- Trained and cheap labor.

Weaknesses/Problems

- Weakness of infrastructure;
- Shortage of transportation networks; and
- Sudden change of policies.

Threats

- Reduction of some advantages that used to encourage the investment environment;
- Increase of pollution and traffic congestion; and
- Political instability.



A goods storehouse

Strategy for Development of Trade Sector in Egypt

Recently, a strategy was devised to develop the internal trade sector in Egypt through achieving five goals as follows:

- Improving the methods of getting high quality products for consumers through offering discount prices, monitoring markets and abiding by international health standards;
- Creating a balanced trade model that benefits all consumers, and not only the richer social classes. This will be achieved in the whole urban mass through adopting a comprehensive set of design requirements and policies;
- Improving trade performance to make the trade sector more attractive for investors. Such development is based on upgrading and investing in the trade infrastructure;
- Upgrading traditional trade through funding mechanisms and by encouraging joint purchasing groups and store modernization initiatives to strengthen the significant role of the main parties on the national level; and
- The GC to reach a high ranking as a favorable commercial destination through gradually restructuring the internal trade industry and attracting key international parties.

Currently, several priority procedures are being taken, including:

- **Improving Trade Regulations:**

This procedure (represented in the regulatory and legal capacity to have sound development without impeding growth) is being applied through the current regulatory authority. The lately established Internal Trade Development Authority (ITDA) will take the responsibility of proposing new trade regulations, guided by similar standard regulations applied in other countries, based on a diagnosis of the current norms and laws.

- **Program of Improving Internal Trade:**

The program of developing internal trade outlines the stages of the policy adopted by successive governments to support traditional retail trade that seeks gradual development and encourages competition among suppliers/stores. The goal of focusing on local retail stores is to guarantee homogeneous development to establish an improved system for retail trade all over Egypt; and more importantly, promoting and building capacities of accredited local competitors to compete with international companies. The initiative for strengthening the supply chain is the basis that guarantees improving products' quality standards, since a large quantity of fresh products is wasted because of unsuitable transportation.

- **Establishing New Commercial Areas**

Opening new stores is the main solution for expanding internal trade in Egypt, in addition to the development of stores' licensing procedures. Two procedures will be taken by the ITDA. The first main procedure is allocating lands for trade-related activities in all governorates, while the second procedure is attracting more trade investments locally and internationally, which represent a prerequisite for opening new stores all over the country.

- **Inspection and Control**

Inspection and control procedures are basic critical requirements to ensure application of developed quality standards. For this reason, it is considered a pillar for establishing the trade modernization strategy at present.

- **Application of Standards**

Being strict in applying health, quality and consumer protection standards is a very important characteristic of trade economies in developed countries to gain consumer confidence and encourage sales.

Strategic Directions of the Trade Sector

According to the future vision, the GC will be a vital destination for the trade sector, able to attract traders and consumers from outside its borders.

To achieve this vision on the ground, the trade sector will implement a development strategy that is based on the following:

- Quickly devising a new structure for retail trade all over the GC;
- Providing support to the upgrading and capacity-building process of small traders; and
- Substantially improving employees' potentials and capabilities in sectors of agencies/supplier chains/stores through developing logistics resources.

The need for trade services is expected to increase in the future. Based on international standards, retail trade area must be increased fourfold as shown in Figure 47. The traditional retail trade model (e.g. traditional outlets, stalls, etc.) will continue to dominate despite the decrease of such model compared to the modern retail trade model (e.g. commercial agencies, supermarkets, hypermarkets, etc.)

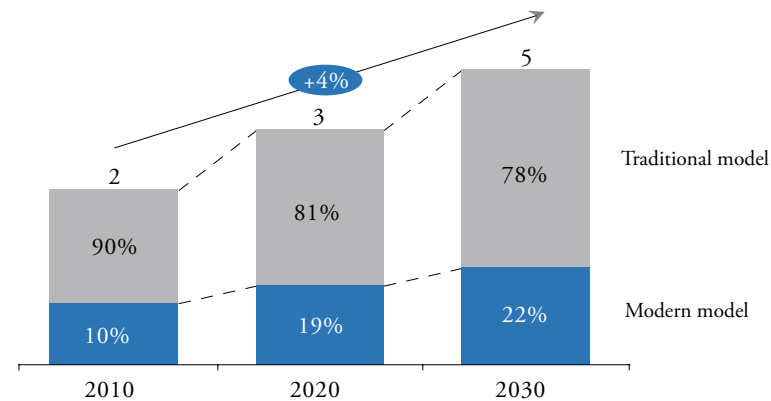
Priority Projects

Pilot Projects

Establishment of trade city

One of the most important determinants of the trade sector is its current location which limits integration, transportation and the efficiency of logistic services. A trade city will be built to reinforce the GC competitiveness in this sector

Figure 47: Changes in the need for retail trade areas between 2012 and 2032 (in million square meters)



Source: GOPP

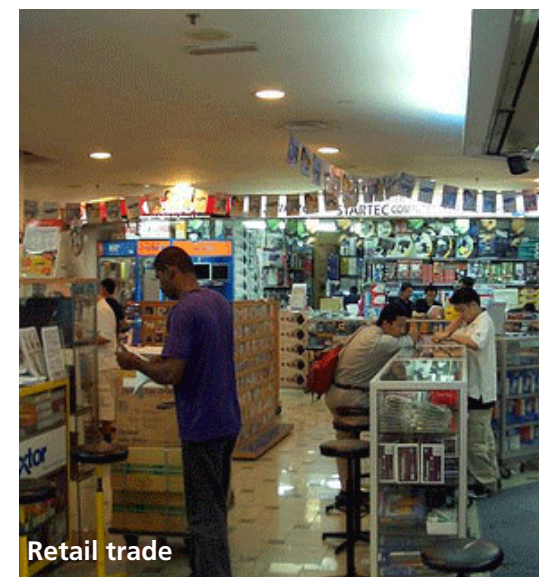
“The area of the GC retail trade should be increased fourfold.”

as shown in Figure 48. Moreover, areas will be allocated for storage, wholesale and semi-wholesale trade, transportation and logistics supplies. This city will be built in an accessible area to guarantee domestic and international linkage.

Trade-related Projects

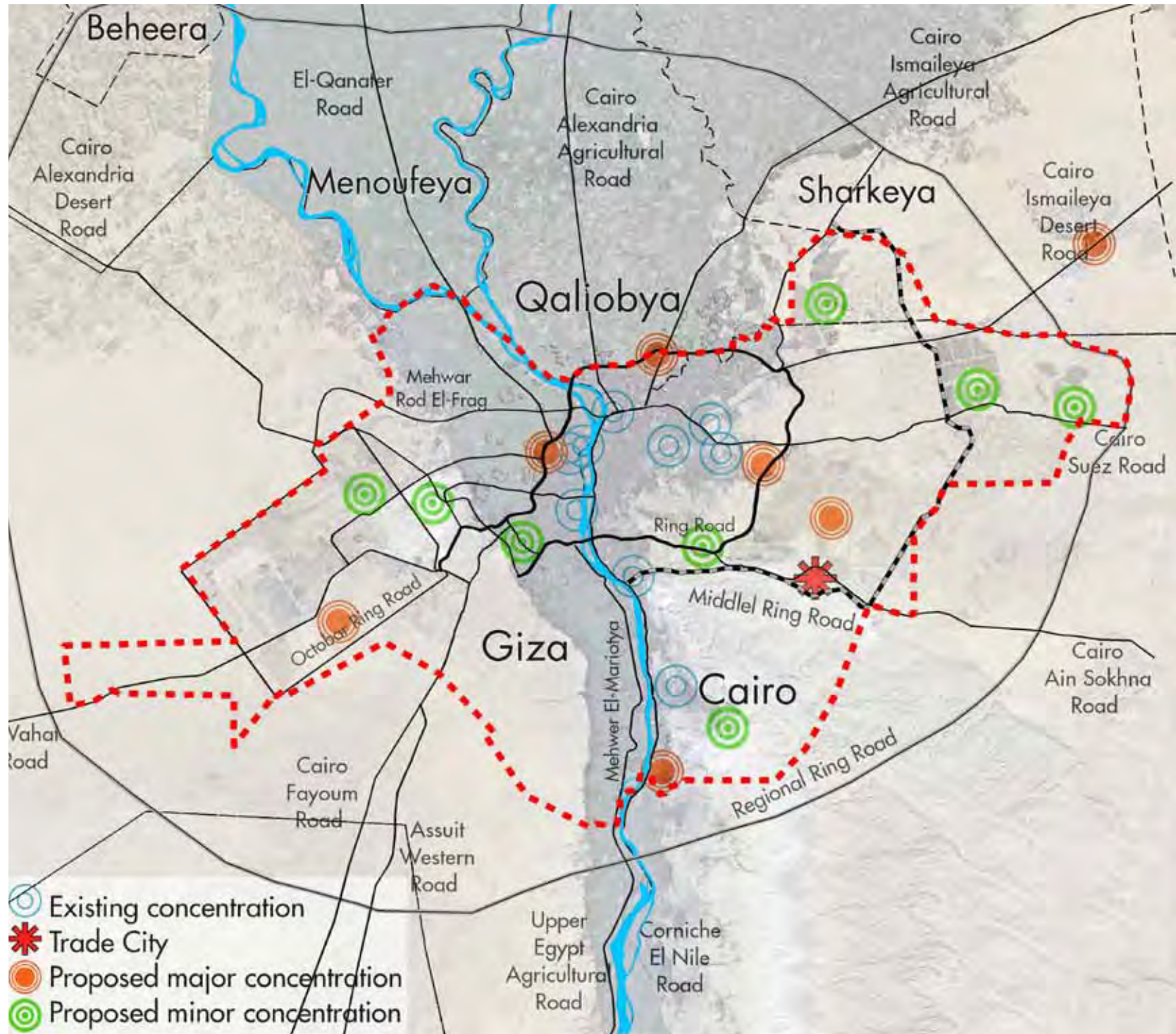
Establishment of areas for modern trade in the GC

Distinct pieces of land will be gradually offered to attract specialized companies to establish private shopping centers (malls) and agencies for retail stores, aiming at increasing the area allocated for modern trade in the GC.



Retail trade

Figure 48: Current and future trade areas in the GC



Source: Database of the GC Geographic Information Systems - GOPP

Banking and Financial Services

The GC is a national and regional center for the financing sector. The strength of the financing sector is undoubtedly reflected on the whole economy.

The strategic direction of this sector includes creating a local market for financial/funding services (especially through increasing the opportunities of getting banking services). It also involves a gradual expansion for the parties most capable of global competition.

Present Situation

The GC contains the headquarters of most major Egyptian financial institutions. These institutions achieve a great benefit from the steady growth of the financial service industry in Egypt. Moreover, several foreign banks also have chosen to locate in the GC to carry out their local operations.

Banking Sector

The financial sector currently owns a regulatory framework that works according to the international standards. The international financial crisis had a limited effect on the financial sector in Egypt. In fact, the Egyptian financial sector was backed by the sound financial sector which was only exposed to a minimum effect of structured products, excess liquidity (ratio of loans to deposits reached 50%) and limited mortgage activity in Egypt.

The most important characteristics of the financial sector are:

- Privatization and unification of the banking system;
- Getting rid of the loans not meeting the requirements in state-owned banks;
- Financial and administrative restructuring of state-owned banks; and.
- Developing the potentials and capabilities of banking supervision and management in the Central Bank of Egypt.

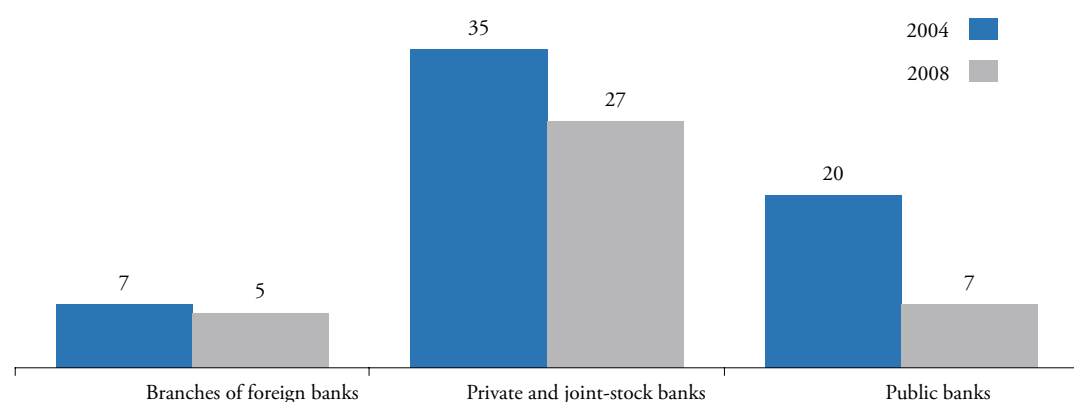
These procedures had a positive impact on improving asset quality and abundance of capital in the Egyptian banks, where poorly performing and substandard banks were excluded. Accordingly, the total number of banks decreased from 62 to 39 banks in 2008.

The system of banking service outlets and the infrastructure of commercial banks in Egypt (2345 branches and about 3111 ATMs in 2008) serve individuals' needs and the economic transactions of existing small and large companies in the GC.

Despite such great development in the last years, the banking sector in Egypt is still underdeveloped compared to international standards as shown in Figures 49 and 50. Moreover, the spreading of banking services is still very slow.

It was found out that only 15% of the residents has bank accounts, while credit distribution rates are still low.

Figure 49: Number of banks in Egypt according to ownership (2004 – 2008)



Source: African Development Bank (2009): A report on the characteristics of the private sector in Egypt

Banking Services – Analysis of Main Results

Strengths/Constituents

- Availability of highly efficient banking cadres; and
- Diversity of economic sectors that allow financing potentials.

Opportunities

- Activating the role of the banking sector;
- The possibility of financing middle and low-income classes; and
- Reformulating the role of specialized banks in achieving development goals.

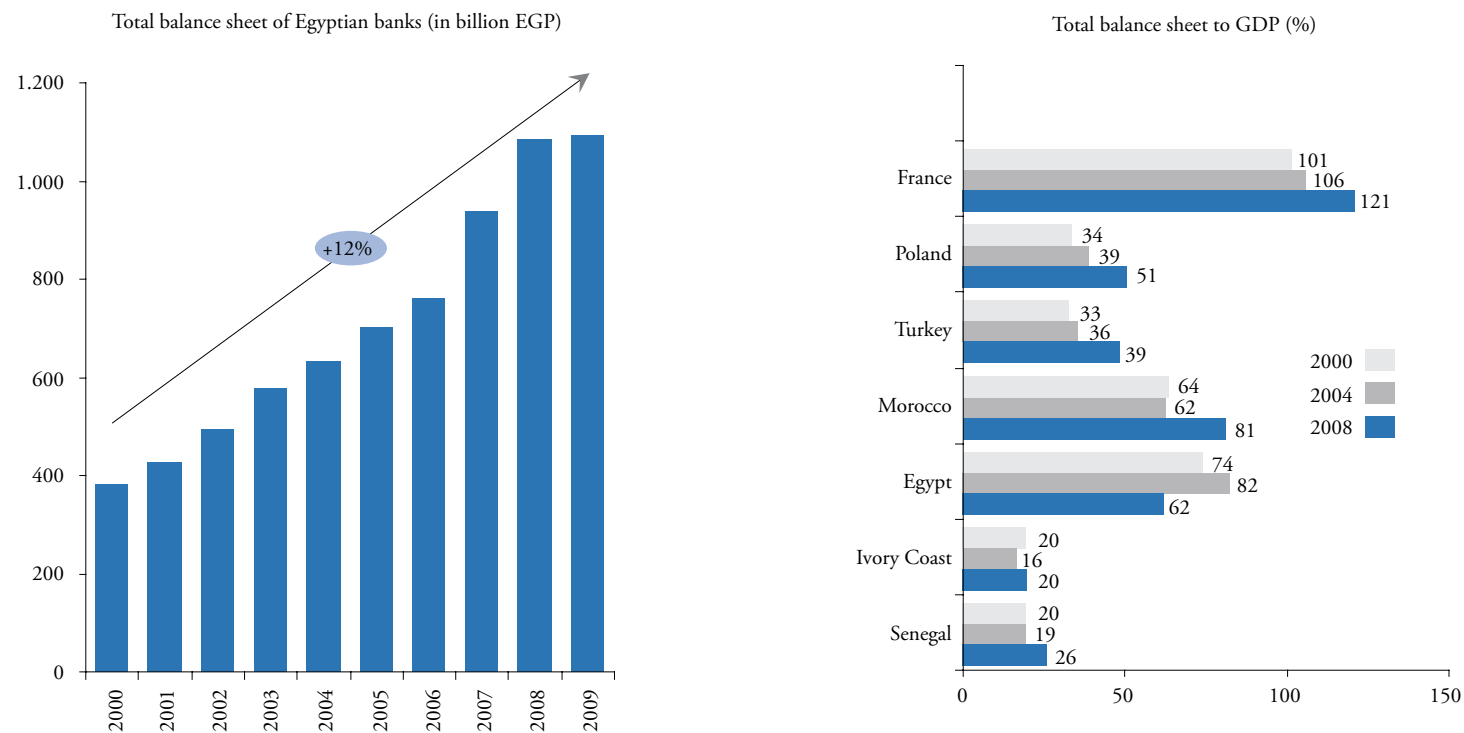
Weaknesses/Problems

- The ranking of the banking sector is weak and not competitive; and
- Sudden economic decisions.

Threats

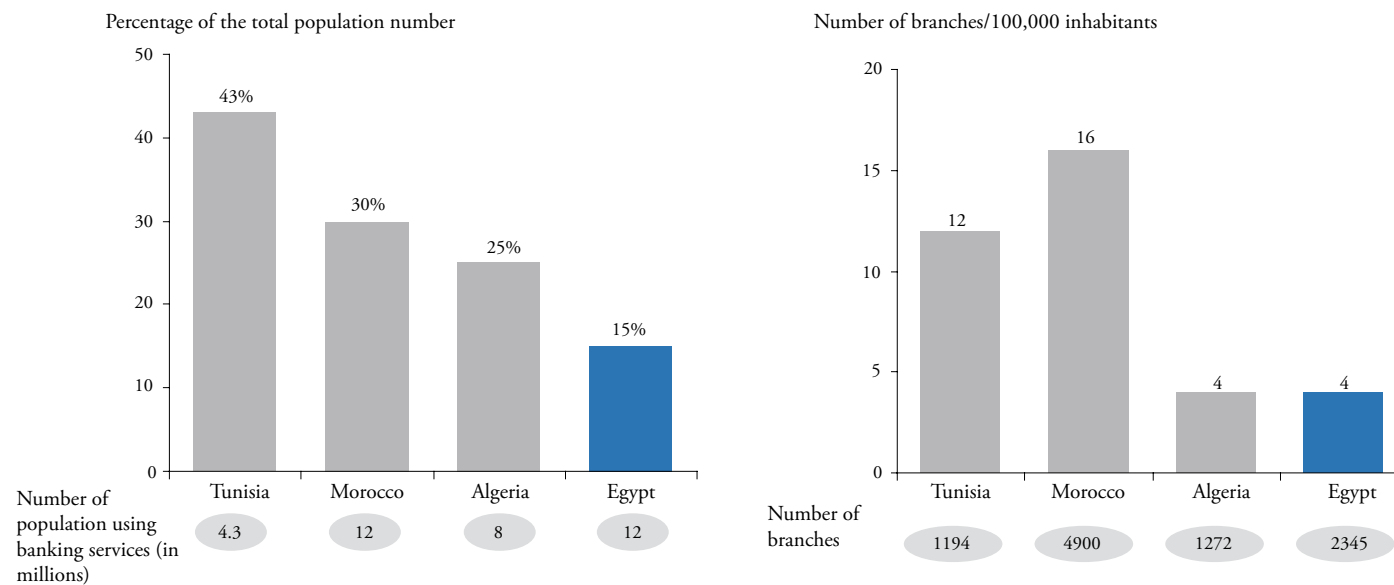
- The time-consuming procedures required to obtain investment licenses.

Figure 50: Size of balance sheet of Egypt banks compared to international standards



Source: World Bank Financial Structures Database (2010)

Figure 51: Egyptian banking market compared to international standards 2008



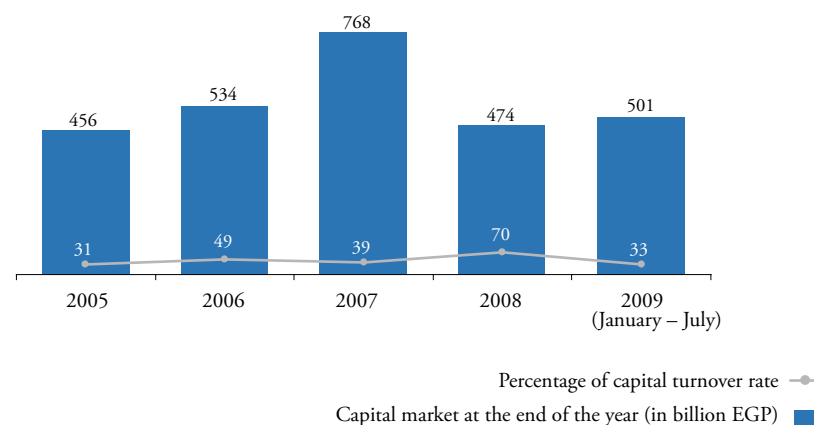
Source: Analytical quantity surveying study.

Stock Exchange

The GC has the biggest stock exchange in Egypt with a total market value exceeding 83 billion US dollars in 2010. The stock exchange is an economic edifice whether for financial institutions or local companies looking for capital investment. In order to ensure that all investors' needs for small and medium enterprises are fulfilled in the stock exchange, NILEX was launched in October 2007 to provide medium and small companies with opportunities of long-term financing.

Nevertheless, the total volume and overall liquidity of the Egyptian stock market is still limited; however, it has great opportunities for future growth.

Figure 52: Total capital ratio to capital turnover in Egyptian stock exchange



Source: African Development Bank (2009): A report on the characteristics of the private sector in Egypt

Insurance Companies

The insurance sector in Egypt is still weak and limited; however, the government proceeded with restructuring the insurance sector and state-owned insurance companies. In May 2008, a new insurance law was adopted to support the project independence. It also separates life insurance from other different types of insurance and increases the minimum capital of companies to 60 million EGP; in addition to introducing intermediaries of companies.

Moreover, the value of motor third party liability (MTPL) installments, which the government has fixed at a very low level over long years, was increased to enable insurance companies to cover their expenses. This will eventually lead to setting full prices depending on market mechanisms. Accordingly, the sector also witnessed the introduction of large international companies to the Egyptian market.

Strategic Directions of Banking and Financial Sector

The vision for developing the banking and financial sector in the GC aims at achieving a proper standing as a competitive center for the business and finance field in the Middle East. This will be done through a two-pronged approach as follows:

- Developing the local banking sector and increasing the spread of banking services among people and companies; and
- Ensuring the competitiveness of parties working in the banking and financial sector to allow global spread.



Central Bank of Egypt

One of the main conditions of achieving this vision is the necessity of considering mergers and acquisitions which will allow the emergence of entities that are capable of international competitiveness, in addition to continuing to improve human capacity. Moreover, another main condition is strengthening the skills of workers in the financial services sector.

Priority Projects

Establishing sets of support offices

The financial services industry in the GC will benefit from the emergence of specialized groups

that provide support or help services and banking audit services. Many of these projects are being studied, as the largest international providers of financial services are gradually studying the choice of Egypt as a strong candidate for opening their branches both on the regional and the international levels.

“ It was found out that 15% only of the residents has bank accounts. ”

Information and Communications Technology (ICT)

The Egyptian Government has exerted great efforts in this field; the most important of which is the establishment of the Smart Village to attract direct foreign investments in the ICT sector.

Local dynamics and the interest of foreign companies has accelerated the development in this sector and encouraged the assimilation of modern communication technology.

ICT development depends on the infrastructure and available skills.



Electronic service room

Present Situation

The ICT sector in the GC has lately witnessed a remarkable boom and became a main engine for growth that provides job opportunities. Strengths of the specialties of these fast growing sectors depend on the dynamics of local ICT companies, including new projects. The GC managed to attract large multinational companies to benefit from their experts and well qualified employees who also mastered several languages as shown in Figure 53. In addition, the GC seeks to benefit from the developed ICT infrastructure. Last years have witnessed a great improvement in using outsourcing services in the GC.

Communications Sector – Analysis of Main Results

Strengths/Constituents

- Availability of communications infrastructure;
- Availability of locations attractive to multinational (international) companies; and
- Availability of a competitive field for services.

Opportunities

- Residents' aspiration to benefit from the technological field; and
- Bilateral cooperation with international partners (India, Korea and Singapore).

Weaknesses/Problems

- Weak financing potentials; and
- Shortage of research centers in the ICT field.

Threats

- International competition.

Figure 53: Special outlook of advantages and disadvantages of outsourcing communication centers of multinational companies in the GC

Advantages	Disadvantages
<p>Availability of qualified, multilingual employees</p> <ul style="list-style-type: none"> • Availability of a number of graduates who graduate every year from higher education institutions fluent in a number of languages and willing to work in the (BOT) industry. • Attrition rate: weak (15 – 20%). <p>The cost factor is comparable with that of India</p> <ul style="list-style-type: none"> • The average wage of a person with academic certificate in the computer field (CCP) is higher than that of India by 10%. • The rise in salaries is compensated by the infrastructure and less ICT costs. <p>Massive government support</p> <ul style="list-style-type: none"> • Enormous investments in infrastructure (transportation, water and sanitation and investment facilities). • The government offers tax exemptions and lands for lower prices. 	<p>The economic climate faces challenges in spite of the improvement it witnessed</p> <ul style="list-style-type: none"> • Inflation has doubled (it is expected to decrease in the next year). <p>Bureaucratic corruption</p> <ul style="list-style-type: none"> • Egypt's rank retreated lately from 112 in 2011 to 118 in 2012 according to the International Transparency Index - Administrative Corruption Index. <p>Securing data, intellectual property and privacy are still causes for concern</p> <ul style="list-style-type: none"> • In a study on the protection of intellectual property rights, Egypt ranked lower than the world average and the average for the Middle East and North Africa.



The Internet in Egypt

The spread of the World Wide Web (Internet) is a great opportunity for the citizens of Egypt to benefit from the enormous potentials of modern technology. On the national level, great efforts were exerted to provide more affordable technology for all inhabitants through launching the free internet service in January 2002. This decision eradicated the monthly subscription fees for accessing the internet using the landline phone service. Accordingly, the number of internet users increased six-fold in one year.

In 2004, initiatives for introducing the broadband internet service, adopted by the Ministry of Communications and Information Technology, followed in succession. This was implemented through developing a policy for a new framework providing broadband services using wireless communications and reducing the service cost to 45 EGP per month; one of the world's lowest costs for this service; and the aim was to encourage the expansion of internet use.

In 2005, the Universal Service Fund (USF) was established under the supervision of the National Telecommunications Regulatory Authority (NTRA) to provide motives for partnership between the public sector and the private sector to offer affordable communication services, including internet services for remote and disadvantaged areas all over Egypt.

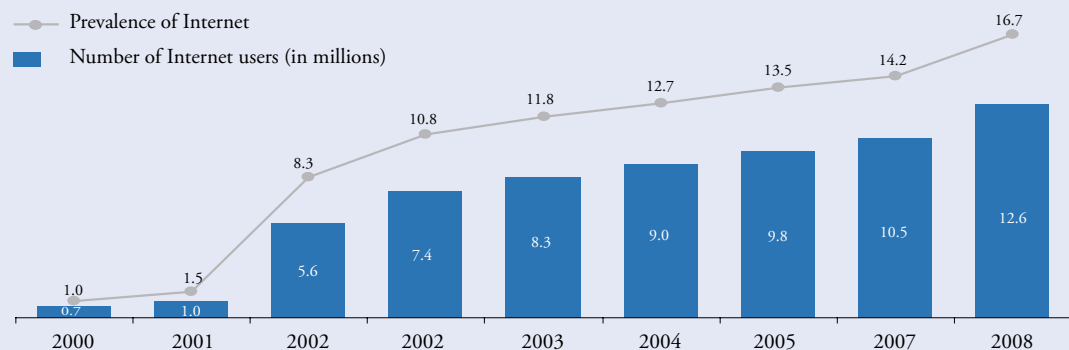
IT Clubs are also a great initiative that provided the internet service, hardware and software for

Egypt's population. Moreover, these clubs offer training services; there are currently about 2163 clubs on the national level; most of them are located in the disadvantaged areas.

To improve the use of IT in schools and universities, cooperation agreements were signed with the Ministry of Education and the Ministry

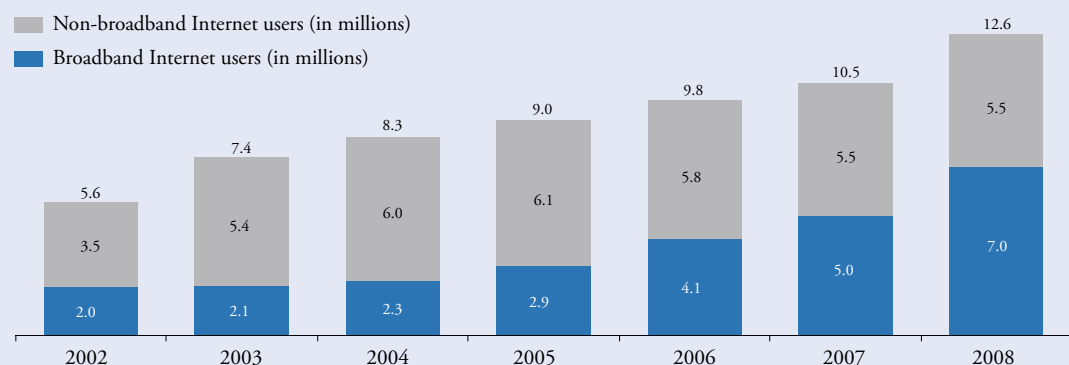
of Higher Education to launch projects such as "A computer for each school teacher/student," "A computer for each university professor/student," and "A computer for each journalist." In addition, the initiative of "A computer for each top student" provides more advanced computers for top students in primary schools all over the country.

Figure 54: Number of internet users and prevalence rate of internet service in Egypt (2000 -2008)



Source: Ministry of Communications and Information Technology (MCIT) (2010) - Egypt ICT Indicators Portal

Figure 55: Egypt's Internet users based on connection type (2002-2008)



Source: MCIT (2010), Egypt ICT Indicators Portal

Strategic Directions of ICT Sector

The national vision for the ICT sector is divided into three tangible objectives, to facilitate defining their ultimate goals and measuring the progress of their achievement. These goals are as follows:

1. Attracting investments and providing technical support to the sector;
2. Enhancing and improving the quality and level of available services; and
3. Increasing outsourcing and increasing job opportunities through conducting agreements with international companies.

This strategy will be reflected on the regional level and will increase the value of private assets in the GC.

Priority Projects

ICT projects

Establishing technology parks all over the GC

Establishing technology parks is one of the best methods to achieve innovation and competitiveness. The project aims at developing existing parks such as the Smart Village in the 6th of October and establishing new projects such as the Technology Park in Maadi, which will heavily contribute to establishing the industry of communication centers. Moreover, it will contribute to getting the help of external service providers for export. The project will be implemented through conducting a partnership between the Egyptian Government and the private sector on the model of the Smart Village.

Participating in human capacity development

Current skills are not capable of competitiveness in the ICT sector. Therefore, attention must be given to human skills because of their paramount importance. The project will aim at capacity improvement on all levels inside the GC as follows:

- Introducing ICT to all stages of education whether basic, secondary or higher education through the Smart School Project; and
- Supporting the provision of affordable computers, and increasing the use of IT through the spread of IT clubs in the GC.

Building ICT infrastructure

Ensuring the availability of infrastructure is very important for achieving the maximum benefit of technological advances. Moreover, all technological zones will be supplied with a modern IT infrastructure, allowing high speed Internet service and providing a secure source of energy supplies. Through the “Smart Home” Initiative, modern technologies will be regularly incorporated in the operation of home appliances.

Smart Village: An advanced IT center

A key technology park and business forum in Egypt

The Idea

The Smart Village project was launched in 2003 and became the main ICT hub and the most important business complex in Egypt.

Moreover, the Smart Village also contains local and multinational companies, governmental departments, financing organizations and authorities, educational institutions and research and development centers.

The Smart Village receives a unique form of support as it has access to the latest scientific findings in the field of technological infrastructure, in addition to the latest system of facilities management. Nevertheless, it also includes a comprehensive set of business and recreational services. The Smart Village area was also supplied with high-level facilities including a nursery, a school, a club, restaurants, a medical clinic and several business support services.

Village Size

The IT Area and the Business District occupy more than 3 million m² in the west of the GC. The park also provides technologically advanced business areas that accommodate 100 headquarters of several companies employing 12,000 employees.



Future of the Village

The growth movement is expected to continue in the Smart Village to accommodate more than 500 companies and over 80 thousand employees by 2014. The success of the Business Complex located in the Smart Village in Cairo led to the establishment of similar projects all over Egypt. Accordingly, theoretical designs are currently being prepared for Damietta Smart Village as well as the logistics center (logistic support) and the business center at Alexandria Smart Village.

Health

The level of available health services in the GC governorates is acceptable compared to the remaining governorates of Egypt. However, it does not meet the approved international standards, as several areas in the GC are still lacking some of these basic services.

The strategic direction aims at developing the quality of services provided and improving medical education in order to have a universally recognized medical education and to benefit more from qualified employees in the field of healthcare and medicine in the GC. Moreover, there is a need for huge investments to fill the current gap and to get prepared for future needs.

Healthcare services can be a part of the services that increase the GC regional attraction.



Health KPIs	2012	2032	Numbers that need to be added
Family (in thousands)	51	103	52
Nurses (in thousands)	47	125	78
Doctors (in thousands)	38	65	27

Present Situation

The health sector in the GC is a developed sector, as the GC includes several medical colleges. It also includes 21 hospitals belonging to the Ministry of Health and over 611 private hospitals. Health services coverage in the GC is twice better than other regions in Egypt in terms of the residents number per hospital bed, although some areas in the GC need better medical services coverage.

The GC has a universally recognized healthcare that can compete with other countries in the Middle East region. This recognition contributed to supporting the GC standing. Cairo hosted the Medhealth Cairo Conference 2010 attended by 11 health ministers from Arab states to discuss the future of the healthcare sector in the Arab World. However, the health sector in the GC still lacks the application of best practices followed by developed

countries regarding the ratio of healthcare employees per each 1000 citizens as shown in Figures 56 and 57.

Health Sector – Analysis of Main Results

Strengths/Constituents

- Availability of several medicine colleges and hospitals;
- Availability of training centers for basic care and emergencies;
- Availability of graduates of medicine colleges every year; and
- Availability of sources of local products for the manufacturing of medicines, vaccines, dietary supplements and pharmaceutical alternatives.

Opportunities

- The increasing number of specialized senior doctors in Arab hospitals;
- The growing market of medicinal herbs and alternative medicines in Africa, Europe and the Arab countries; and
- Possibility of improving medical tourism such as Ain Helwan.

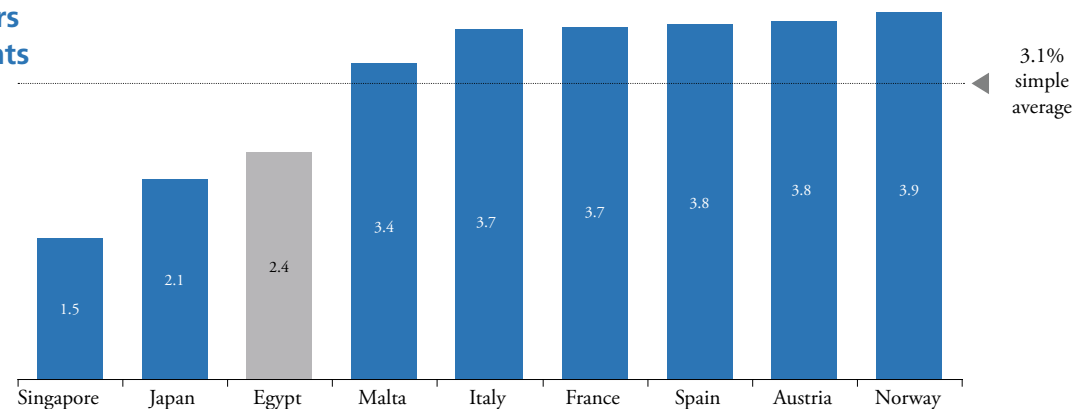
Weaknesses/Problems

- Lack of universal recognition of medicine colleges in Egypt;
- Weak medical supervision in spas;
- Lack of healthcare standards;
- Weak financing for basic care doctors; and
- Lack of efficient nursing.

Threats

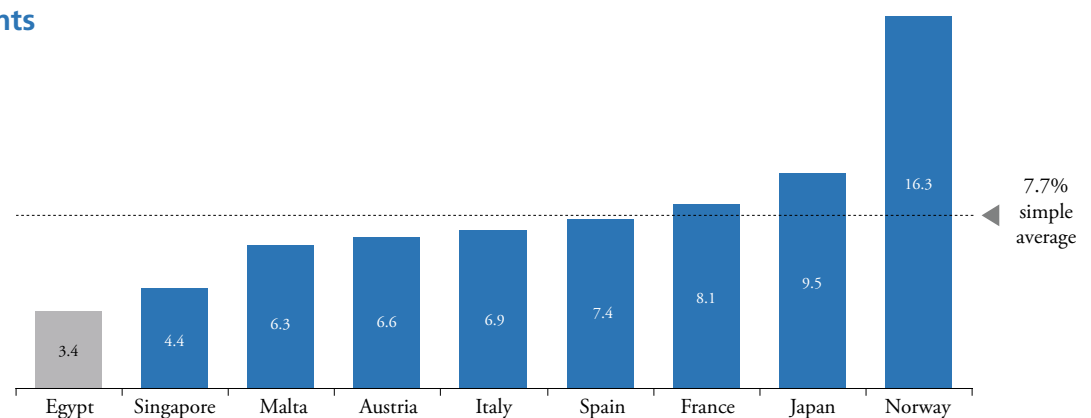
- Effect of pollution and unhealthy climate; and
- Lack of evaluation for medical research centers.

Figure 56: Number of medical practitioners in some global countries per 1000 residents



Source: WHO Statistics 2009

Figure 57: Number of nursing staff members in some global countries per 1000 residents



Source: WHO Statistics 2009

Strategic Directions for Health Sector

The future vision for developing the health sector in the GC is to provide healthcare services to all residents segments according to international standards.

This vision will be achieved through the following procedures:

- Developing the capabilities of employees working in the medical field through providing quality medical education opportunities;
- Developing technical experiences in the fields related to health services such as the manufacturing of medical equipment;
- Developing the infrastructure of the medical sector; and
- Improving the medical tourism sector through establishing resorts for treatment, hospitalization and convalescence.

To meet the increasing future demand for healthcare services as a result of the population increase and the increasing life expectancy – as shown in Figure 58 - and to meet the international standards in healthcare, it is important to provide huge investments in this field to fill the current gaps and to get ready to face future situations as shown in Figure 59. Therefore, about 103 thousand hospital beds should be secured in the GC by 2032.



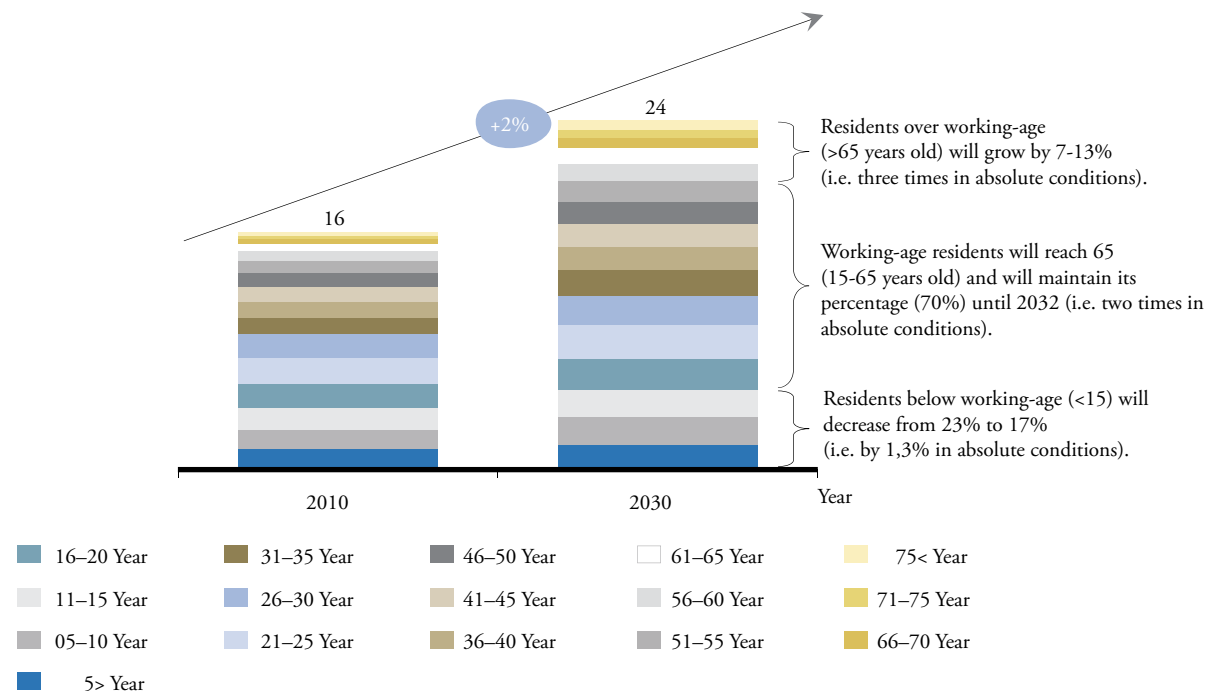
Priority Projects Pilot Projects

Establishment of two medical cities

The GC has a long and honing history in the field of medical skills and potentials, as it has a large number of skilled doctors. However, it currently lacks the infrastructure needed to meet the international standards in terms of providing treatment for each individual, the matter which causes some of the residents to seek treatment abroad. Moreover, establishing a group of private and public medical centers on state-owned lands will undoubtedly help increase competitiveness in the medical field and ensure the providing quality service for all GC residents segments. In addition, establishing a high-level medical infrastructure in the GC will attract Arab and African citizens seeking high quality and affordable medical treatment.

Figure 58: Age-specific residents estimates in the GC in 2032

Estimated population of GC till 2032



Source: GOPP

Figure 59: Estimated needs of healthcare system in the GC between 2012 and 2032

Establishing new nursing colleges

To meet the increasing demand for nursing services, the project aims at establishing colleges of nursing that will organize world-class training programs. It will also provide high-skilled labor force from among the graduates. Moreover, the headquarters of nursing colleges will be located close to private and public hospitals, where they can coordinate together to develop relevant academic curricula.

Health sector projects

Establishing a therapeutic resort

Projects of therapeutic resorts are proposed to be established with the objective of upgrading therapeutic tourism through providing medical services and high-quality hospitalization and improving the treatment period in hospitals.

Figure 59 (A): Medical doctors needed between 2012 and 2032 (in thousands)

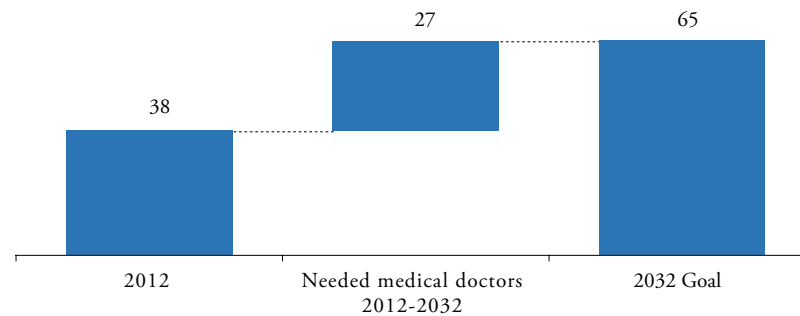


Figure 59 (B): Nursing staff members needed between 2012 and 2032 (in thousands)

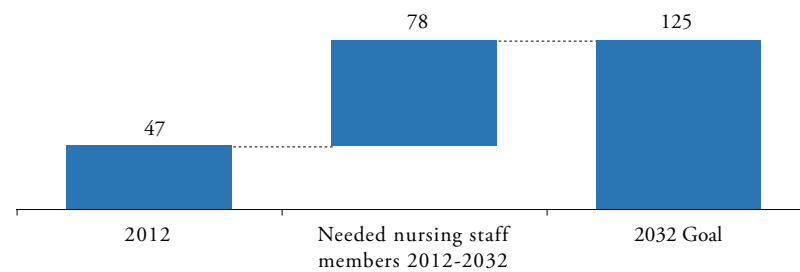
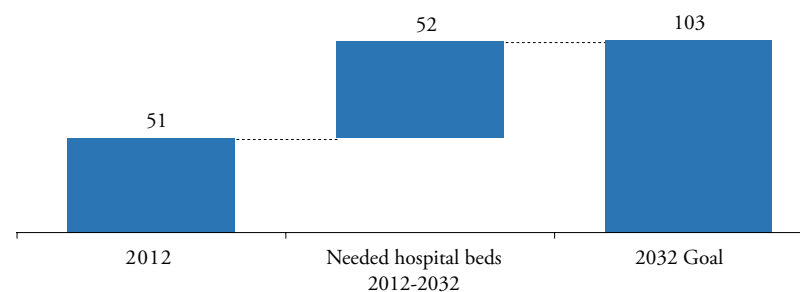
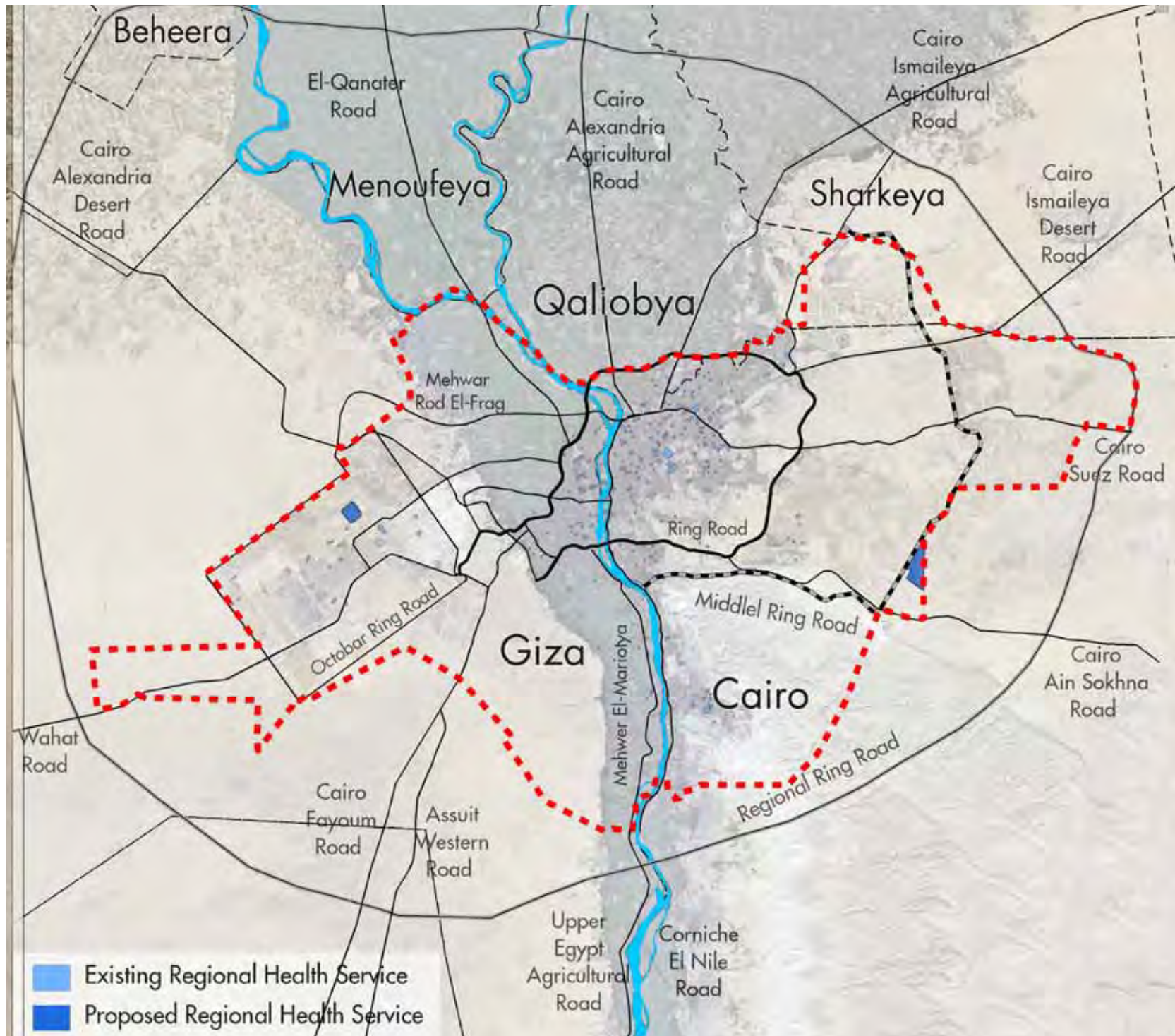


Figure 59 (C): Hospital beds needed between 2012 and 2032 (in thousands)



Source of the three sub-figures: GOPP

Figure 60: Centers of healthcare buildings in the GC



Source: Database of the GC Geographic Information Systems - GOPP

Education

Despite the fact that basic education enrollment rate is high in Egypt, it is still below the required level compared to other countries.

At the university level, available supplies do not meet the educational requirements because of the increasing number of students; therefore, they must be developed.

The gap between the types of offered jobs in the labor market and available qualifications can be reduced through the education system, especially by improving vocational training programs.

Education KPIs	2012	2032	Additional units
Age-specific residents in the GC			
Primary education (6-15 years old) in millions	2.66	3.00	
Secondary education (16-18 years old) in millions	0.95	1.1	
Higher education (19-23 years old) in millions	2.07	2.3	
Enrollment rates			
Primary education *	106%	106%	
Secondary education	64%	100%	
Higher education	37%	94%	
Number of classrooms (in thousands)	87	141	54
Classroom focus			
Primary education (student/classroom)	43	30	
Secondary education	33	30	
Higher education	250	100	

* The high enrollment rate of primary education is attributed to the qualitative improvement of educational services (availability of foreign and language schools) resulting in attracting students of adjacent areas of the GC urban mass to join this service.

Present Situation

The education sector in the GC has been known for its history and age-old traditions as a center of education and academic institutions in the Arab world. The GC also has a good coverage of school education services in all stages of education – except for some unplanned areas. Moreover, the GC includes the main headquarters of Egypt’s largest universities. Regarding primary and secondary stages of education, balanced educational options are provided by private and public schools that offer educational services. The enrollment rates in

the GC reached 106% for primary education, 64% for secondary education and 37% for university and higher education.

However, some challenges are still there; they include the focus of classrooms which is still high as shown in Figure 62. Moreover, the enrollment rate of the secondary stage is below the required levels. The focus of students in universities leads to the difficulty of accessing laboratory and library services.

“ Enrollment rates in the GC reached 106% for primary education, 64% for secondary education and 37% for university and higher education. ”

Figure 61: Age-specific residents growth in the GC (in millions)

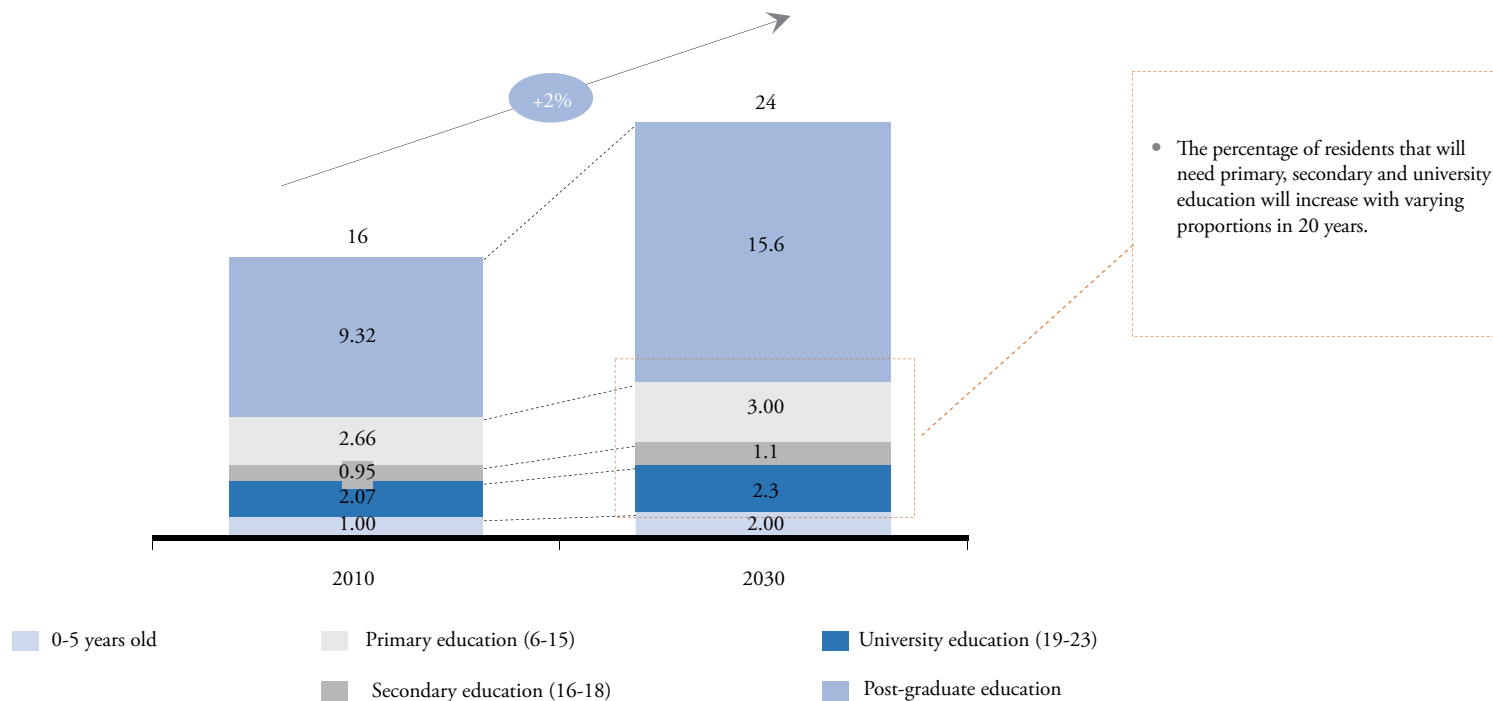
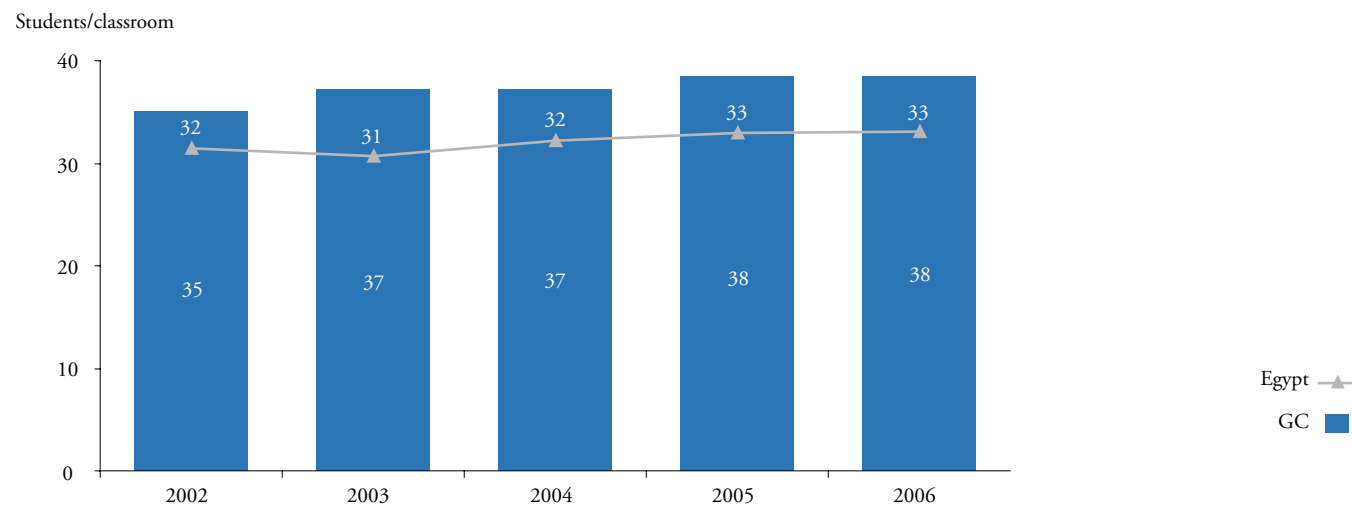


Figure 62: Focus of Al-Azhar Education



Education Sector (primary and secondary) – Analysis of Main Results

Strengths/Constituents

- Availability of general primary education;
- Limited gender discrimination; and
- Availability of strong governmental support.

Weaknesses/Problems

- Weak enrollment rates in secondary education;
- High illiteracy rates;
- High focus of school classrooms;
- Weak interaction between education and labor market; and
- Lack of lands for building new schools in the already-existing urban mass.

Opportunities

- Availability and diversity of teachers' specialties;
- Availability of lands and infrastructure in new cities; and
- Increasing investments in the education sector.

Threats

- High expected increase in residents; and
- Lack of skill development programs that are compatible with current advancements in the IT field.

Higher Education Sector – Analysis of Main Results

Strengths/Constituents

- Diversity of scientific specialties in higher education;
- Availability of research units especially in public universities;
- Competition of researchers in several areas of specializations; and
- Availability of an important infrastructure for IT and computer networks.

Weaknesses/Problems

- Limited size of private higher education;
- Low level of equipment;
- Unfair distribution of educational institutions in the GC; and
- Weak relationship between education and the needs of labor market, especially the industry sector.

Opportunities

- Establishing an international partnership with universities/ international research centers;
- Establishing international economic relations and Free Trade Agreements (GATS); and
- Qualifying the Egyptian scientific cadres to work abroad.

Threats

- Expected significant increase in residents; and
- Immigration of highly qualified professors.

Strategic Directions of Education Sector

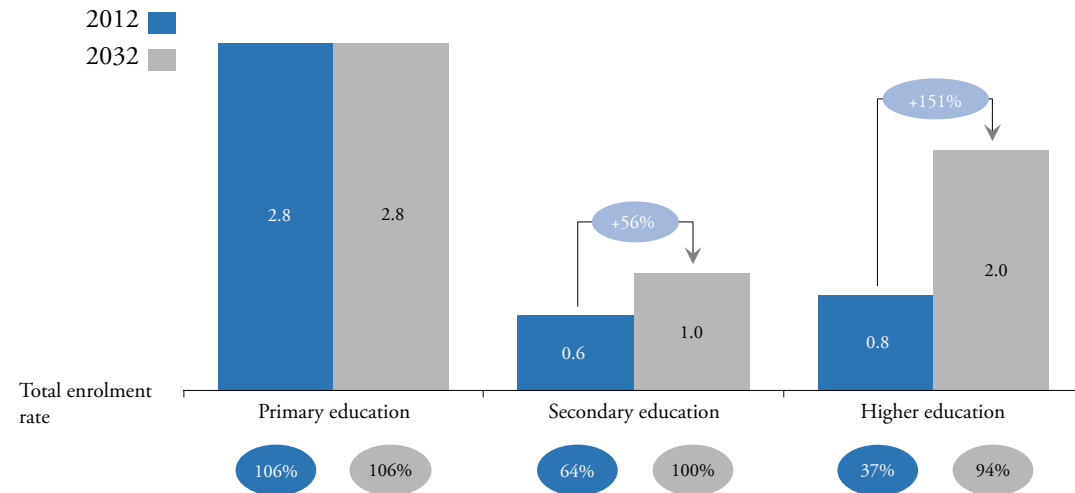
The GC vision for improving the education sector aims at making GC a regionally attractive education center and developing the education level to be meet with required levels.

The main goals of the GC education sector can be summarized as follows:

1. Making pre-university education accessible to all by 2018 and ensuring its continuity;
2. Achieving a percentage of 55% for higher education enrollment rate in 2022, with this percentage increasing over time;
3. Establishing the infrastructure required to reduce the high focus of classrooms, so that the number of students does not exceed 30 students per classroom by 2022, and maintaining this focus rate;
4. Providing the required service in terms of the quality and size of educational infrastructure to cope with residents growth;
5. Achieving equality in education enrollment among all classes and income segments;
6. Developing the use of IT as a tool to support training and teaching;
7. Improving the channels linking education and industry to meet the employers' needs; and
8. Developing the educational process and upgrading teachers.

In line with national priorities of Egypt, large investments will need to be made in the education sector to deal with the high focus of students per classroom which substantially exceeds international standards. To be ready for expected future growth, more than 54 thousand new classrooms in the GC should be established as shown in Figure 54.

Figure 63: Enrolment rates in education stages in the GC 2012-2032 (in million students)



Source: GOPP

Priority Projects

Pilot Projects

Establishing two cities of science and knowledge

The two cities will attract global research universities to provide best programs and academic certificates. Moreover, they will enter into partnerships with the sectors of industry and business.

The project aims at improving the sector's capacity for regional competition and supporting research and development through:

- Establishing the Cairo international city for science and knowledge to contain public facilities, in addition to international universities, nurseries/technological laboratories; and
- Establishing an authority to be responsible for marketing Egyptian schools and universities abroad, in addition to authorities for financing the costs of the educational process.

Education Sector Projects

Eradication of illiteracy

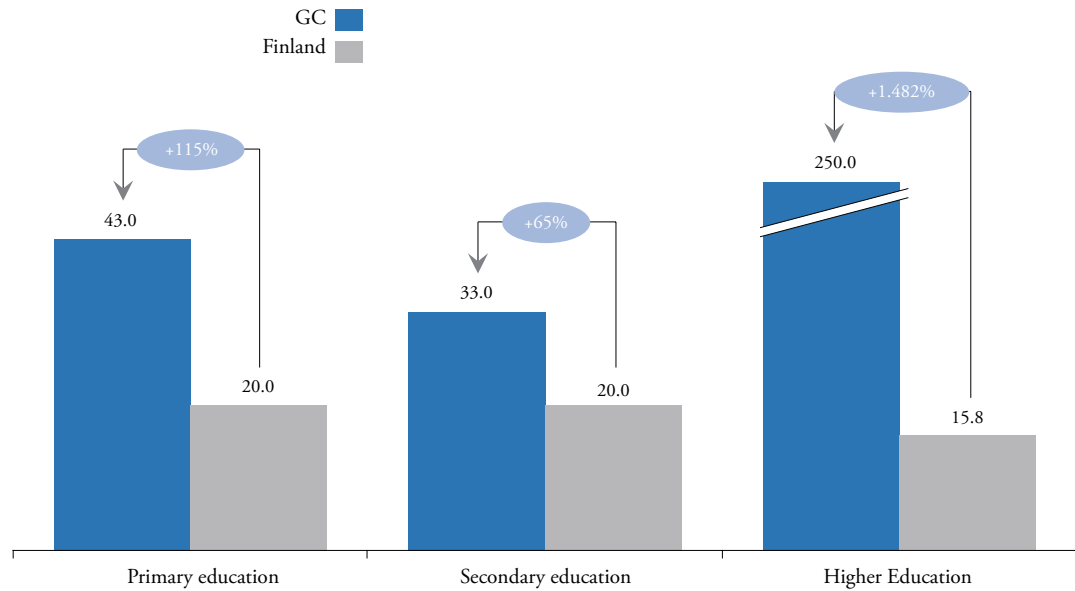
This project aims at achieving two main goals:

- Establishing 350 schools with special focus on the areas deprived of this service; and
- Supporting illiteracy eradication programs that rely on teachers and volunteers from members of the public.

Enhancing the efficiency of educational system

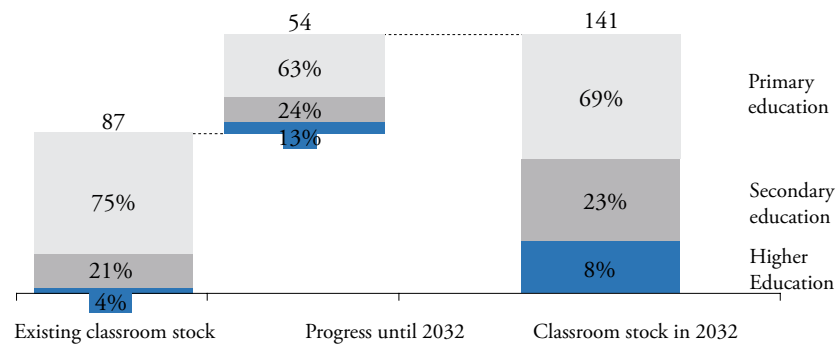
- Setting high quality standards and gradually developing the quality level of teaching; and
- Strengthening the linkage between education and labor market and supporting vocational training programs to provide qualified labor force that is ready to join the labor market after graduation.

Figure 64: Focus of classrooms in the GC compared to that in Finland in 2012 (student/classroom)



Source: GOPP

Figure 65: Estimated number of classrooms needed in the GC in 2032 (in thousands)

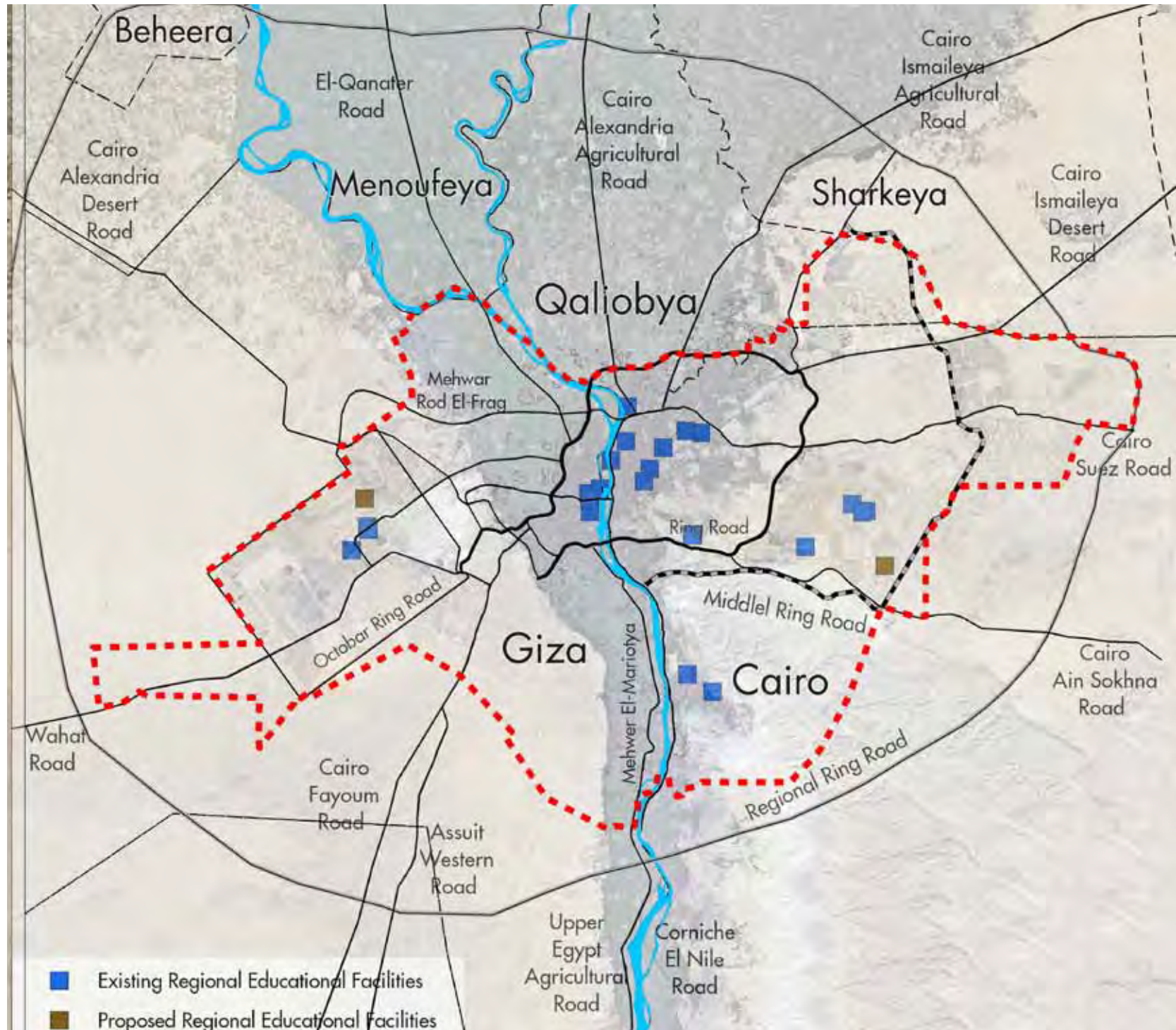


- Providing a large number of primary education classrooms to accommodate larger number of young learners
 - Progress in classroom numbers for primary and secondary stages
- Increasing focus on classrooms for secondary and primary stages

Source: GOPP

“ By 2032, a number of 54 thousand new classrooms should be built in the GC. ”

Figure 66: Existing universities and universities proposed to be established in the GC in the future



Source: Database of the GC Geographic Information Systems - GOPP

Tourism

The GC possesses a set of the greatest tourist attractions and constituents in the world.

Tourism greatly contributes to supporting the GC economy.

Opportunities are available to increase the number of tourists in the GC; and consequently, tourism will contribute to the economic growth through the diversification of tourist products and offers as well as improving the infrastructure.

“Egypt was considered as the world’s most distinguished country in terms of history.”

Tourism KPIs	2012	2032
Number of tourists in the GC (in millions)	3.8	8.85
Number of tourist nights (in millions)	34.7	58.7
Number of hotel rooms (in thousand hotel rooms)	61.4	100

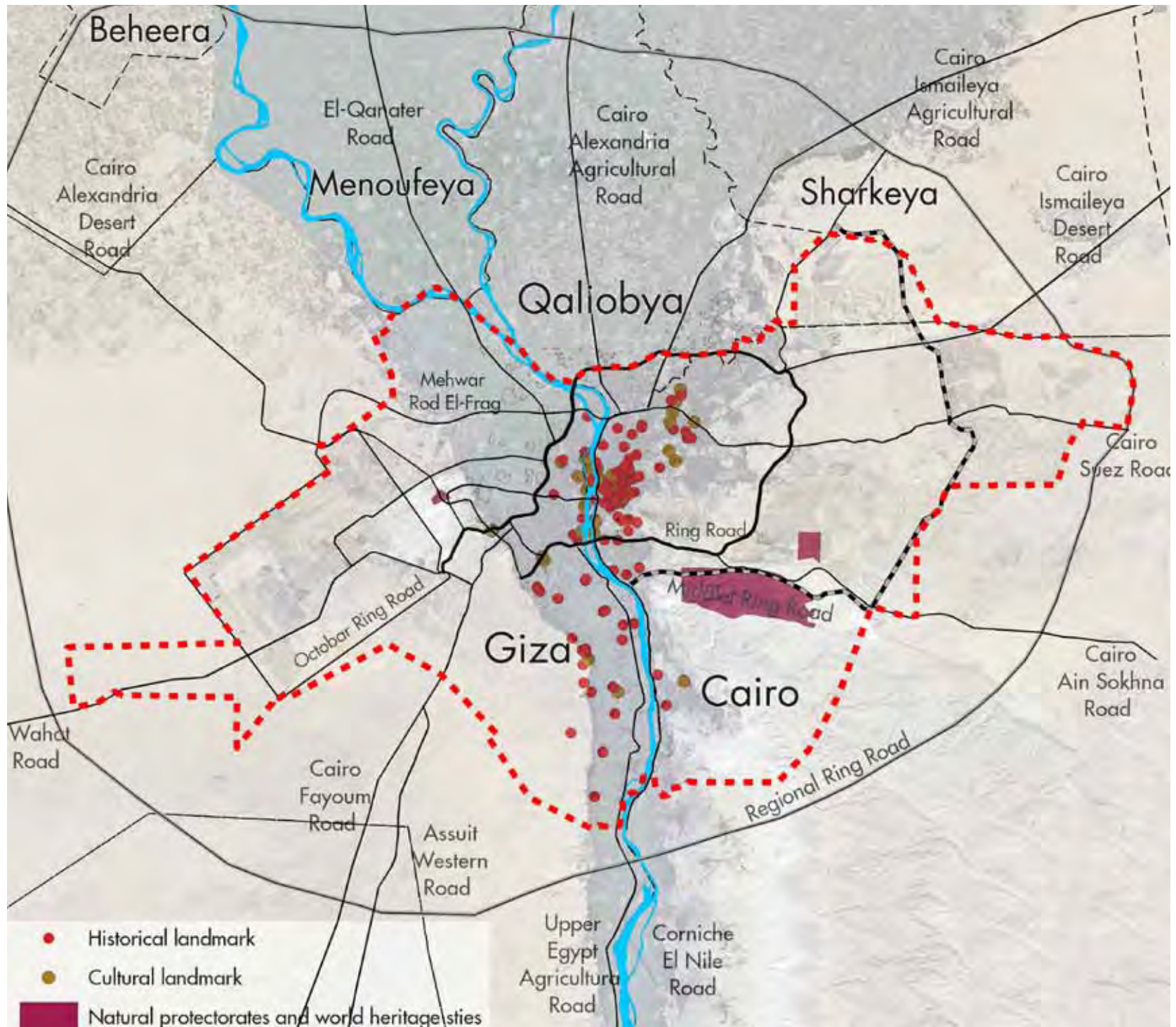
Present Situation

The GC possess a group of the world’s most famous archaeological sites in terms of their historic and architectural value. More than 15 sites in the GC are visited by millions of tourists every year. These tourist attractions include Islamic architecture buildings, Coptic churches, museums, ancient Egyptian monuments such as the Giza Pyramids which were added by the UNESCO to the List of World Heritage Sites. The remaining sites are located in different parts of the GC as shown in Figure 67. Old Cairo, also known as Historic Cairo, is also considered one of the oldest and most ancient cities in the Islamic World as it comprises the most famous religious mosques and schools. These constituents, undoubtedly, contributed to Egypt’s success to be listed in the world’s best countries in CBI ranking lists in December 2008.



Muhammad Ali Mosque inside Saladin Castle, one of the most important Islamic monuments

Figure 67: Main cultural and historical landmarks in the GC



Source: Database of the GC Geographic Information Systems - GOPP

Tourism Sector – Analysis of Main Results

Strengths/Constituents

- Availability of elements of historical and civilizational heritage;
- Diversity of main tourist destinations;
- Diversity of tourism types; and
- Good access to transportation.

Opportunities

- Availability of global natural attractions;
- Availability of potentials for scientific and environmental tourism;
- Availability of proposed projects to support future tourist movement; and
- Distinction of the elements of cultural tourism.

Weaknesses/Problems

- Shortage of hotel capacity;
- Shortage of services in tourist sites and restaurants; and
- High accommodation costs in hotel rooms.

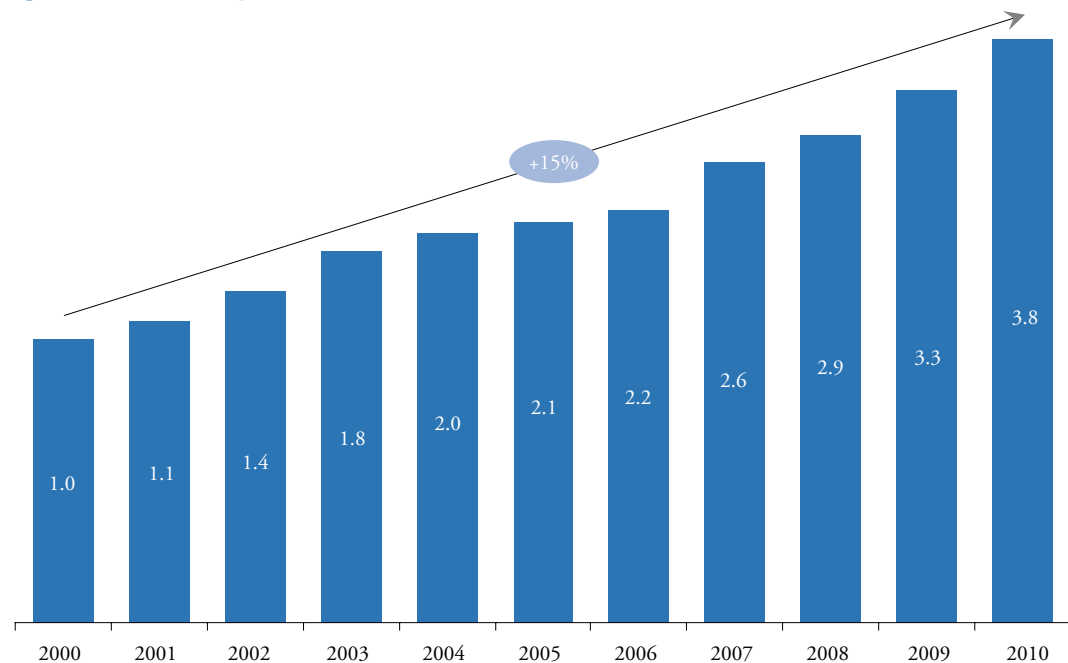
Threats

- Lack of social awareness of the economic significance of tourism;
- Problems of traffic and pollution; and
- High property taxes for hotels.

The GC is the main gateway for entering Egypt; therefore, it benefits from the flow of tourists to the country. It is well prepared for serving tourist sites.

Figure 68 shows the development in the number of tourists in the GC.

Figure 68: Development of the number of tourists in the GC (in millions)



Source: GOPP

Security and Safety in the GC

In 2009, Egypt recorded the lowest per capita crime rates; three times less than France and seven times less than Turkey. The return of stability and availability of security in Egypt in general and the GC in particular will contribute to supporting the future vision of the GC.



New Cairo International Airport

All areas of the GC have been linked together through a strong internal network of air transport that takes tourists to international and local destinations. The air connectivity with other countries of the world was further facilitated through the inauguration of Terminal 3 of Cairo International Airport. In addition to the renovations to other old terminals that facilitate global connectivity of travels, In 2010, a number of 14 million travelers passed by Cairo through Cairo International Airport. Moreover, more than 865 flights left Cairo every week as shown in Figure 69. Thus, Cairo International Airport is the second busiest airport in Africa (after Johannesburg in South Africa) and in the Middle East (after Dubai in the UAE). In the first months of 2010, Cairo International Airport witnessed one of the fastest-growing aviation movements in the world.

The tourism industry is supported by the strong hotel infrastructure. More than 61 thousand hotel rooms are available in GC hotels. However, hotel occupancy rate is a bit low compared to that of other counterpart cities as shown in Figure 70. In fact, 73% of the total hotel room supply is rooms in 4-star or 5-star hotels. However, the shortage of 2-star and 3-star hotels prevents the attainment of the needs of some classes of tourists.

In line with the ambitions of the Ministry of Tourism in its plans to develop tourism in Egypt, a group of important procedures have been carried out.

Strategic Directions for Tourism

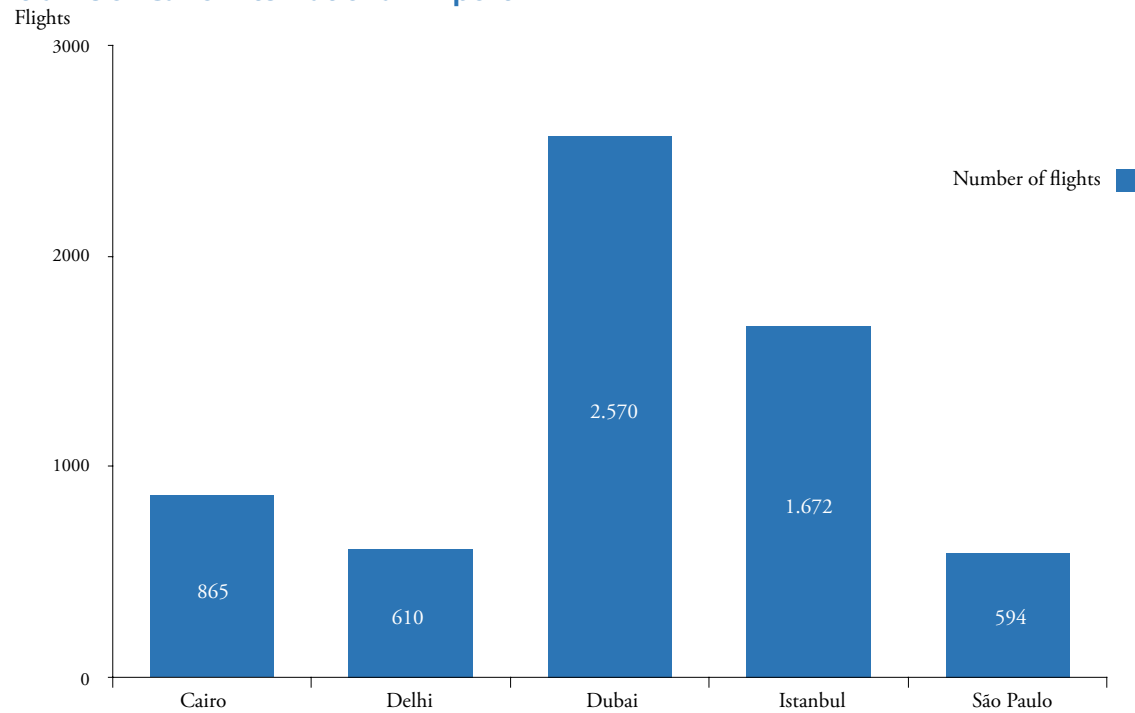
According to the GC future vision of developing the tourism sector, the GC will become a city of tourist attraction on both regional and international levels.

“ About 865 flights departed from Cairo every week in 2012. ”

This objective will be attained through maximizing the benefit from the fields of cultural, historic and conference tourism.

In line with Egypt's global strategy to improve competitiveness in the field of tourism to make Egypt one of the world's top ten competitive countries in the field of tourism, plans for huge investments were developed to get the maximum benefit from its cultural and historical assets and constituents; in addition to diversifying its tourist products and offers. Thus, work will be directed towards the following objectives:

Figure 69: Aviation traffic of Cairo International Airport



Source: Airport data for the week 7-12 of June 2010

Figure 70: Hotel occupancy rate in the GC compared to other global cities



Source: Reports of international airports

- Restoration of historic heritage, especially the Coptic and Islamic heritage and Khedivial Cairo, and maximizing the benefit from the Nile River as one of the prominent tourist landmarks;
- Developing the opportunities of alternative tourism, especially by maximizing the role of the GC as a center for conference tourism; and developing recreational and therapeutic tourism;
- Improving tourism infrastructure, especially by increasing the number of hotel rooms; and
- Raising public awareness of the civil society as to the significance of tourism as a basic element of economic development in the GC.

The target is to increase the number of tourist nights in the GC to reach 58.7 million until 2032, mainly pushed by additional regiments of tourists. On the other hand, a slight decline is expected in the average length of tourist stay. This will require establishing about 39 thousand additional hotel rooms as shown in Figures 71 and 72.



Nile River and its role in leisure tourism

Priority Projects

Pilot Projects

Finalizing the restoration and development of existing historic sites

This project aims at completing the development of historic sites in addition to improving the infrastructure and reviving the Historic Cairo area that represents Fatimid, Khedivial and Coptic eras. Moreover, the project will include establishing a tourist route that will pass by assembly points to see the attractions of each site through using tourist open-top busses designed for tourist tours. Such route will start at the Nile's east bank in front of Rawdah Island, and will then go north where routes will split to take visitors to several archaeological sites in Islamic Cairo. The following station will be at the northeast where Al Azhar Park and Hadayek El Kobba are located. Then, it will go to the southeast to reach the walls of Old Cairo and Coptic Cairo. The route's final destination will be Al Sayeda Zeinab area, and then it will go back to Khedivial Cairo where the tour ends.

In addition, historic areas will be developed through programs like the program for developing unplanned areas in Matarya and Ain Shams. Besides, efforts will be made to highlight discovered archeological attractions and monuments.

Developing Nile Corniche Road as a path for pedestrians

This project aims at developing the Corniche Road to be a path for pedestrians, especially in the areas near grand hotels, historic and archeological sites as well as private activities. Moreover, several marinas for small sailboats will be established through:

- Forming a committee to monitor the safety of Nile water to protect it from pollution and harmful waste; and

- Establishing a passage for river transport along the GC, providing river stations with cafes and rest houses.

Projects of Tourism Sector

Developing Nile islands as nature reserves

This project aims at developing and improving existing Nile River islands in the GC to be official nature reserves; and encouraging sustainable environmental tourist products.

- Stage 1: Developing and improving the infrastructure of Nile islands.
- Stage 2: Encouraging handicraft products that these islands are famous for.
- Stage 3: Establishing a fishing village with facilities for accommodation.

Development of therapeutic tourism

This project aims at establishing therapeutic/ medical tourism in the GC.

- Stage 1: Establishing therapeutic centers that provide current and integrated therapeutic services according to international levels.
- Stage 2: Establishing an integrated therapeutic center equipped with the latest techniques and therapeutic methodologies. Additional services will be provided including areas for recovery and convalescence.

Ensuring that hotel rooms and tourist sites in the GC meet quality specifications

This project aims at providing new tourist centers that will form a point of attraction for tourist activity and business, as well as increasing the GC dynamics through:

- Developing an area with a tourist character in Downtown that will provide an exceptional tourist experience for visitors of museums, sound and light shows, entertainment venues, integrated shops, a great variety of hotels, and a modern effective infrastructure that is able to make this area a place to live, work and entertain; and
- Diversification of tourist products based on what the beautifully-landscaped natural environment provide; in addition to facilitating the practice of sports, recreational and cultural activities.

Establishing an Arabian horses center

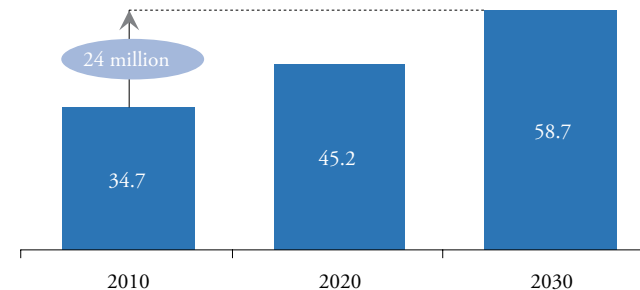
This project aims at establishing and supporting a center for tourist attraction in one of the new cities that relies on Arabian horses, in addition to establishing a global horse stalls center for horse breeding, including yards for horses, hotels, schools and villas.

Ecotourism and safari tourism project

This project aims at establishing ecotourism.

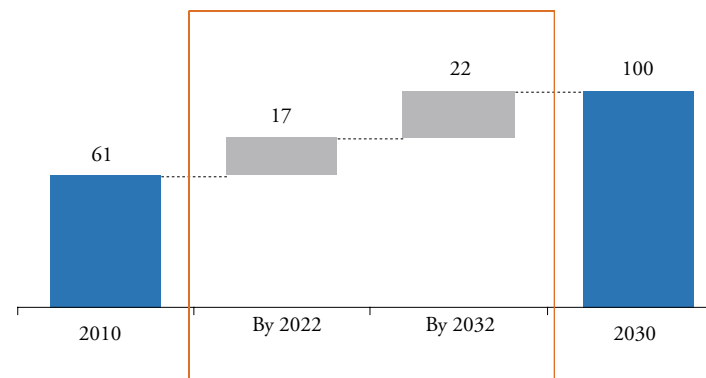
- Stage 1: Ensuring the borders of nature reserves and protecting them from any encroachments.
- Stage 2: Establishing a guesthouse for visitors.
- Stage 3: Establishing an open environmental museum.
- Stage 4: Developing all gardens, especially those related to heritage; in addition to establishing an open theatre and improving green spaces.

Figure 71: Expected number of tourist nights in the GC in 2032 (in millions)



Source: GOPP

Figure 72: Number of hotel rooms expected to be added in the GC in 2032 (in thousands)



Number of hotel rooms will reach about 100,000 rooms by 2032.

Source: GOPP

Introducing additional capacities and potentials to air transport

The project aims at developing the capacities and potentials of Cairo Airport, establishing a new airport in the 6th of October to meet the increasing demand for the service as a result of the expected increase of tourist flow to the GC, in addition to improving the activity of Cairo International Airport through several procedures:

- Establishing an area for business activities and services such as the tourist, medical and recreational activities;
- Establishing terminal 4 to meet the increasing pressure currently faced by the Airport which exceeds the airport capacity. The actual infrastructure is expected to reach 75% of its full operational capability by 2014/2015. The new phase will provide the capacity to absorb 20 million passengers every year; and
- Establishing a subway line to link the Downtown area with Cairo International Airport.

Besides, the project targets establishing a second airport in the 6th of October to absorb a part of the passengers arriving at Cairo International Airport. The new airport's capacity will range between 8 and 10 million passengers per year. In addition, an investment area for services and business activities will be constructed on an area of 80 million square meters.

Reviving heritage of Khedivial Cairo

Reviving Khedivial Cairo is an important project in the framework of developing the vision and the strategic plan for the GC urban development. The central area will be restructured and developed as an open museum and a place for global trade and local companies, besides being a unique tourist destination in the heart of the city.

Located in the center of the city near the Nile River, the Khedivial Cairo can carry out two main missions:

- It can be the main destination of tourists and residents of Cairo; and
- It can restore its standing as a place for living, work and entertainment for its residents in a manner that commensurates with its historic value.

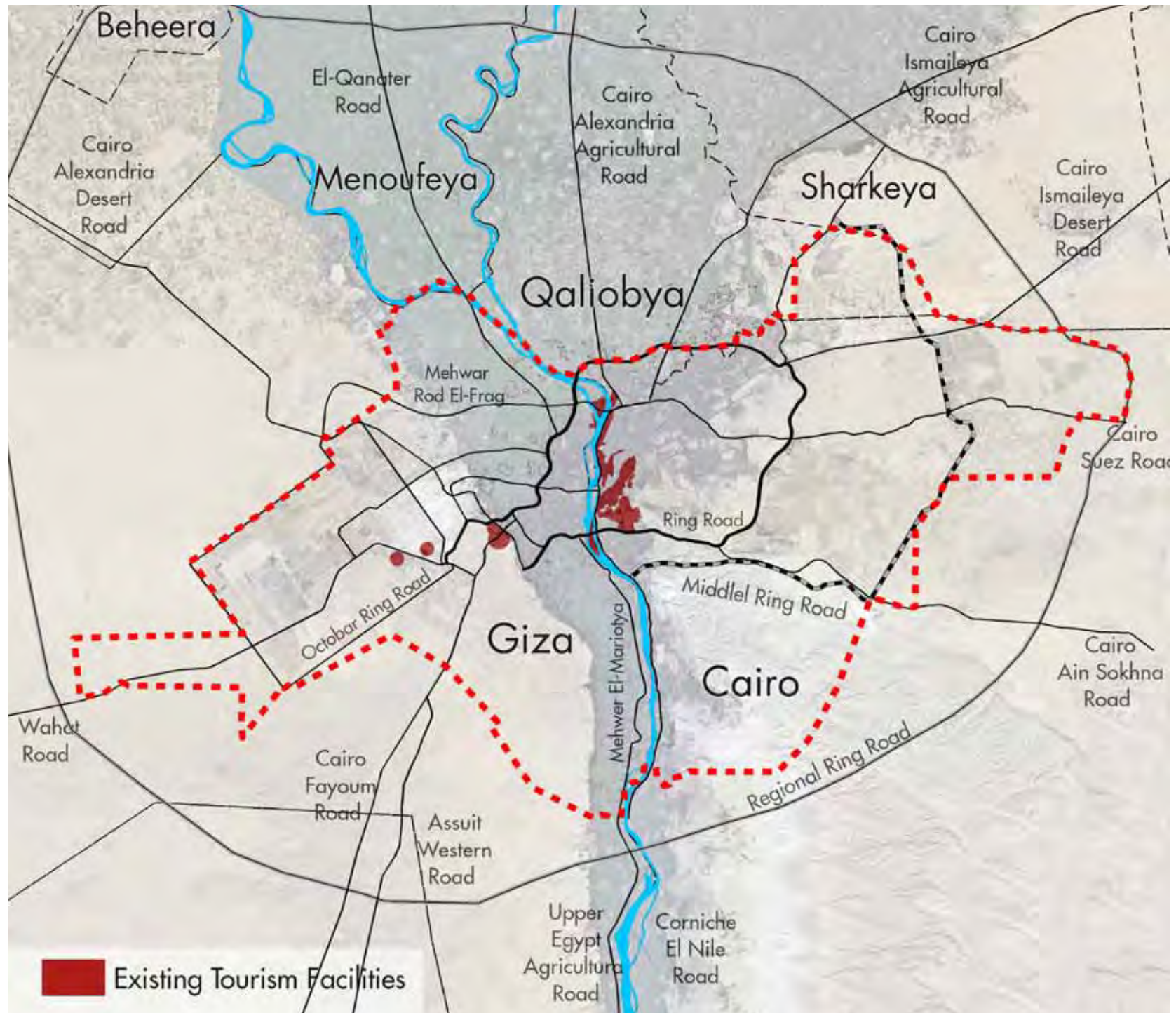
The project aims at developing the area to become a vital tourist attraction center and highlighting its archeological identity. The visitor can recognize the history of each historic building away from hustle and bustle of the city and traffic congestions.

These projects include establishing more pedestrian areas, garages and parking areas on the borders of the area, allowing citizens to walk and use public transportation all over the place. Moreover, the project also includes establishing several cultural, social and recreational services.

Figure 73: General layout for Khedivial Cairo



Figure 74: Areas of investment activities centers in the GC



Source: Database of the GC Geographic Information Systems - GOPP

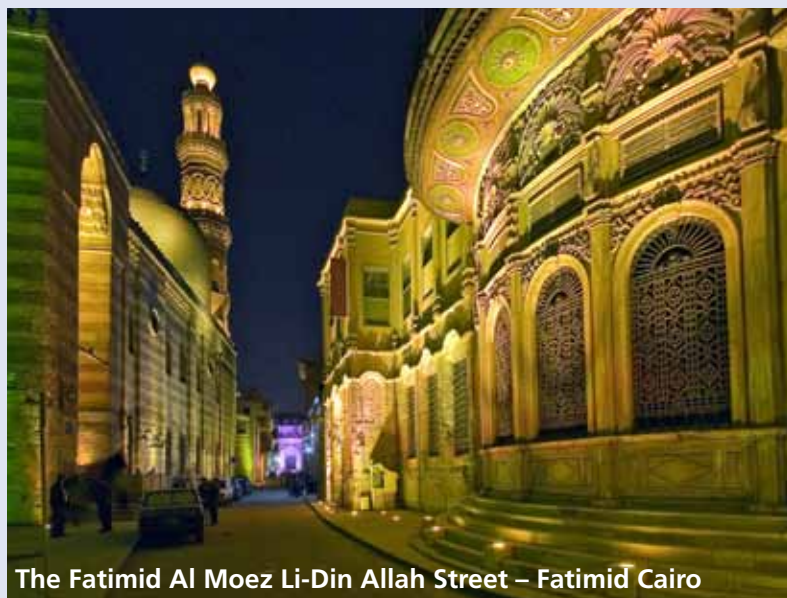
Transforming Al Moez Street into an open museum

Al Moez Street, one of the UNESCO world heritage landmarks, is located in Al-Azhar District in Fatimid Cairo. It is also the main axis and the center of Historic Cairo. The Street is 1 km in length and includes more than 34 antique buildings belonging to several eras.

Al Moez Street comprises a number of mosques, religious schools and residential complexes that date back to period extending from the Umayyad Era until the start of the Ottoman Era. Moreover, it is home to vital traditional crafts, buildings and stores.

Recently, the Ministry of Culture launched an initiative for developing Al Moez Street to be a world-class open museum. Therefore, it is only used by pedestrians, except for the time between 8 p.m. to 11 a.m. for serving business activities. The development process was carried out in coordination with the residents of the area.

The initiative also included the development of existing antique buildings located along the street as well as the ancient landmarks in neighboring areas. Priority has been given to ensuring and maintaining the architectural style of the buildings. Moreover, special efforts were exerted to improve the street's architectural landscape, especially in relation to road pavement as well as archeological details and treatments.



The Fatimid Al Moez Li-Din Allah Street – Fatimid Cairo

Urban harmony of Qasr El Nil Street

The urban harmony of Qasr El Nil Street comes in implementation of the goals of urban harmony in dealing with archeological sites and squares. The project's importance lies in the idea of preserving the street's historic nature, as well as its buildings and spaces, as one of Cairo's traditional centers. The project includes four phases:

- Phase 1: Talaat Harb Square
- Phase 2: Qasr El Nil Street from Talaat Harb Square to Mustafa Kamil Square
- Phase 3: Qasr El Nil Street from Mustafa Kamil Square to Opera Square
- Phase 4: Qasr El Nil Street from Talaat Harb Square to Tahrir Square

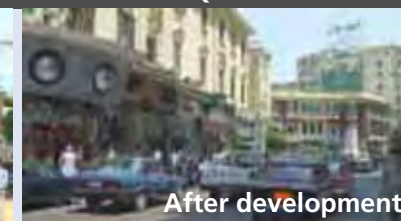
The four phases aim at reforming and harmonizing urban squares and spaces and highlighting its constructional, archeological, cultural, touristic and recreational nature, in addition to developing its unique activities. Nevertheless, the development concept also relies on improving structural and artistic characteristics of the street and strengthening spatial and visual sequence system in a manner consistent with its directly-related field; besides eliminating distortions and random additions that deform the area's visual image.



Qasr El Nil Street



Before development



After development

Culture and Media

Despite the cultural heritage of the GC is based on quality infrastructure, the performance of the cultural sector in the GC is still poor.

The same applies to the media sector, which is threatened by strong competition from other countries in the Arab Region.

Increasing financing and upgrading the level of culture and media sectors are main conditions to address the poor performance of these sectors.

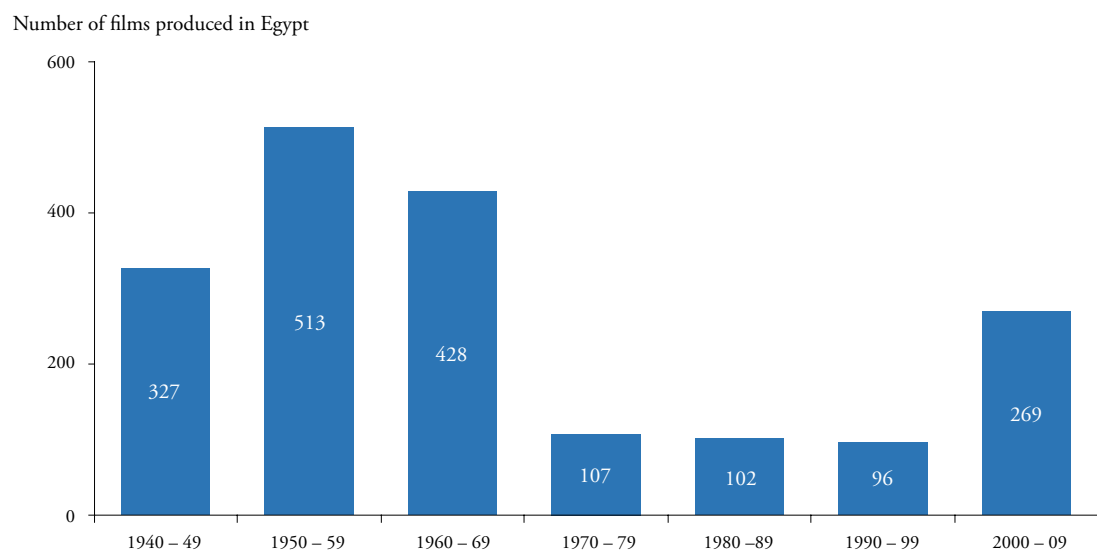


Cairo Opera House, one of the most important cultural edifices in Egypt

Present Situation

The GC is characterized by its ancient traditions as a vital center of Arab culture. It is the home of the global novelist Naguib Mahfouz, the only Arab writer who received Nobel Prize in literature. The GC is also characterized by diversified cultural dialogue in the society, representing the essence of its identity. The cultural sector has an intensive infrastructure including theatres, cinemas, the Opera House and artistic exhibition halls. 40% of Egypt's libraries are located in the GC. Every year, the GC hosts Cairo International Book Fair, the largest and oldest book fair in the Arab world. The GC also comprises film industry organizations that started to gradually recover after the deterioration it witnessed in the eighties and the nineties of the last century as shown in Figure 75.

Figure 75: Film production in Egypt since 1940



Source: IMDB website

The GC museums are diversified, even though they are mainly located inside the main urban mass. Despite the fact that the Egyptian museum enjoys a world-class level, other museums also include a group of significant monuments that are able to attract a larger number of visitors that vastly exceeds the current number. Decisions were made to implement large projects to restore these great museums, such as the Museum of Islamic Art.

However, several factors hinder the use of the GC potentials with their full capacity. All these factors are related to lack of financing and carelessness, from which the cultural sector has been suffering over the last years.

The number of book readers is still limited, partially because of the high illiteracy rate and the lack of a clear strategy to increase the number of readers, and due to the limited number of books translated from foreign languages into Arabic. Moreover, film distribution in the local film production market

is still limited, besides the lack of outlets for film promotion in the international film market. Nevertheless, stage production is currently of low quality.

The situation is almost the same in the media industry; however, the GC benefits from the good media infrastructure, including recognized journalism, the Egyptian satellite “Nilesat” and the Egyptian Media Production City (MPC), in addition to an international news agency with good performance and content. Rates of newspaper reading and the income generated from TV and radio advertisements are high compared to other countries in the region. The quality of the infrastructure of World Wide Web “Internet” in the GC provides an opportunity for developing Internet-based mass media. However, the GC, a leader and main center in the field of mass media, faces challenges because of the emerging media centers that are able to attract the audience as well as experienced journalists and writers.



A Media Production City neighborhood

Towards establishing the new Grand Egyptian Museum

The idea

The new museum, being constructed near the Giza Pyramids, provides an opportunity to redistribute and present all archeological collections that are currently displayed in the old museum. The new museum, characterized by its proximity to the Giza Pyramids, will also be a complementary extension for the old Egyptian Museum. Moreover, it will add new and unique characteristics for the Pyramids Plateau without blocking its view. Moreover, the museum was

evaluated considering the visual axes of its location to face the three Pyramids.

Location

The new museum extends over an area of 50 hectares, three kilometers away from Giza Pyramids. The museum was designed by a group of architecture engineers (H. Bing Ireland) through an international competition. It includes several interconnected passages and bridges that lead to the other sections of the museum. In addition, an independent building will be established to

include an observatory, a library, a media center and other services including allocating areas for holding conferences and exhibitions. The museum is expected to contain 15,000 visitors per day.

Treasures

In addition to 100,000 archeological and historic pieces, the museum will include King Ramses II statue that was moved from its famous square in Downtown in 2006.

Culture and Media Sector – Analysis of Main Results

Strengths/Constituents

- Having the largest and most ancient cultural and media institutions in the region;
- Having innovative culture and media cadres; and
- Organizing several exhibitions as well as cultural and media events.

Opportunities

- The importance of Egyptian heritage;
- Benefitting from the Egyptian satellite to direct the focus of the Egyptian media towards abroad;
- Benefiting from popular cultural and media cadres;
- Benefiting from the academics in media and culture sectors; and
- The intellectual movement represented by the GC.

Strategic Directions for Culture and Media Sector

According to the vision for developing the GC culture and media sector, the GC will be a capital for culture and media in the Arab world and a source for cultural enlightenment and inspiration. This can be achieved through the following objectives:

- Advancement of literature through developing publishing and printing systems and improving the potentials for accessing libraries;
- Establishing cinemas and theaters, through expansion of their areas, doubling their infrastructure and establishing cultural buildings in currently marginalized communities;

Weaknesses/Problems

- Weak budget allocated for the fields of media and culture;
- The education system specialized in the fields of culture and media does not keep up with constant updates;
- Weak legislation system for this sector; and
- Weak cultural awareness of residents.

Threats

- Immigration of media cadres outside Egypt;
- Restrictions imposed by authorities on media fields;
- Culture and media institutions lack marketing plans;
- Weak intellectual property protection; and
- Continued weakness of the educational level of the residents.

- Advancement of journalism, radio and TV as well as ensuring that media companies working in Cairo have global competitiveness;
- Establishing museums to benefit from the global cultural heritage in the GC (see the part related to “Tourism” sector in the present report).

Priority Projects

Projects in the media sector

Establishing infrastructure of libraries

The first initiative is to establish a global library in the GC, similar to Bibliotheca Alexandrina, to include the Egyptian cultural heritage.

The second initiative is to apply modern ICT systems in the GC libraries. The percentage of libraries that currently apply this technology does not exceed 50%. The initiative also includes continuous evaluation of the services and activities of public libraries according to quantitative and qualitative performance indicators. These initiatives and measurements should help improve the performance and efficiency of libraries.

Establishing cinemas, theaters and cultural centers all over the GC

The project aims at establishing cinemas, theaters and cultural centers all over the GC in addition to adopting innovative methodologies to provide remote areas with cultural services, such as the project of establishing the mobile theater that targets preparing mobile theaters on trucks, equipped with all needed technologies, to travel across the GC. Moreover, the establishment of international and local festivals will be encouraged and supported

The project of establishing the global media center

This center will gather all media agencies and departments in Egypt; in addition, it will host regional and foreign press correspondence offices of international newspapers. The center will also be equipped with communication services, studios, convention halls and training centers.

“ The GC will be turned into a capital for media and culture in the Arab world. ”





Chapter Four: GC Social and Urban Development Strategy

The previous section dealt with drawing a road map for supporting economic growth, which is a main requirement for improving the standard of living.

To achieve this, officials must quickly set a program for urban management to define the main directions and principles required for efficiently achieving development in all relevant sectors. This also requires correctly addressing cross-cutting issues such as: traffic congestion problems, pollution and aggravating population problems. Thus, each sector contributes to creating the appropriate environment needed for reaching the desired development; therefore, this section discusses the following five points:

- **Urban development and land use:** It describes strategic directions of urban development and land use to meet the needs of several sectors and residents.
- **Housing:** It focuses on future needs of residents and setting a strategy for dealing with unplanned and unsafe areas.
- **Transportation:** It highlights main projects that will contribute to linking urban centers together.
- **Environment:** It will define main directions to put an end to environmental degradation.
- **Governance:** It includes submitting proposals that ensure the efficiency of managing the implementation of strategic plans and having such proposals approved by competent authorities.

Urban Development and Land Use

Present Situation

The GC urban structure can be divided into three main sectors as shown in Figure 65:

Main urban mass: It represents 69% of GC total urban area: Districts and divisions of Cairo and Giza, especially urban areas on the ring road and Nile River from the South (Maadi and Helwan), Al Salam from the North and Shubra El-Kheima in Qalyubia governorate.

New urban communities: They represent 26% of GC total urban area: This sector includes all new urban communities established in the outskirts of the main urban mass such as New Cairo, Shorouk, Badr, and Obour from the East; the 6th of October and Sheikh Zayed from the West; and the 15th of May from the South.

Villages and small communities (cities) that represent 5% of GC total urban area: This sector includes villages and small communities located in agricultural areas outside the main urban mass. It mainly occupies the North West and South West of the GC study area.

The urban mass continued to expand since the Egyptian Revolution of 1952 to contain the increasing growth of residents as shown in Figure 77.

The GC total urban area reached about 804.2 km² (191468 feddans) which is six times the area in the fifties of the last century, and double the area in the eighties.

The area of the main urban mass reached 131981 feddans and is highly stacked, with population

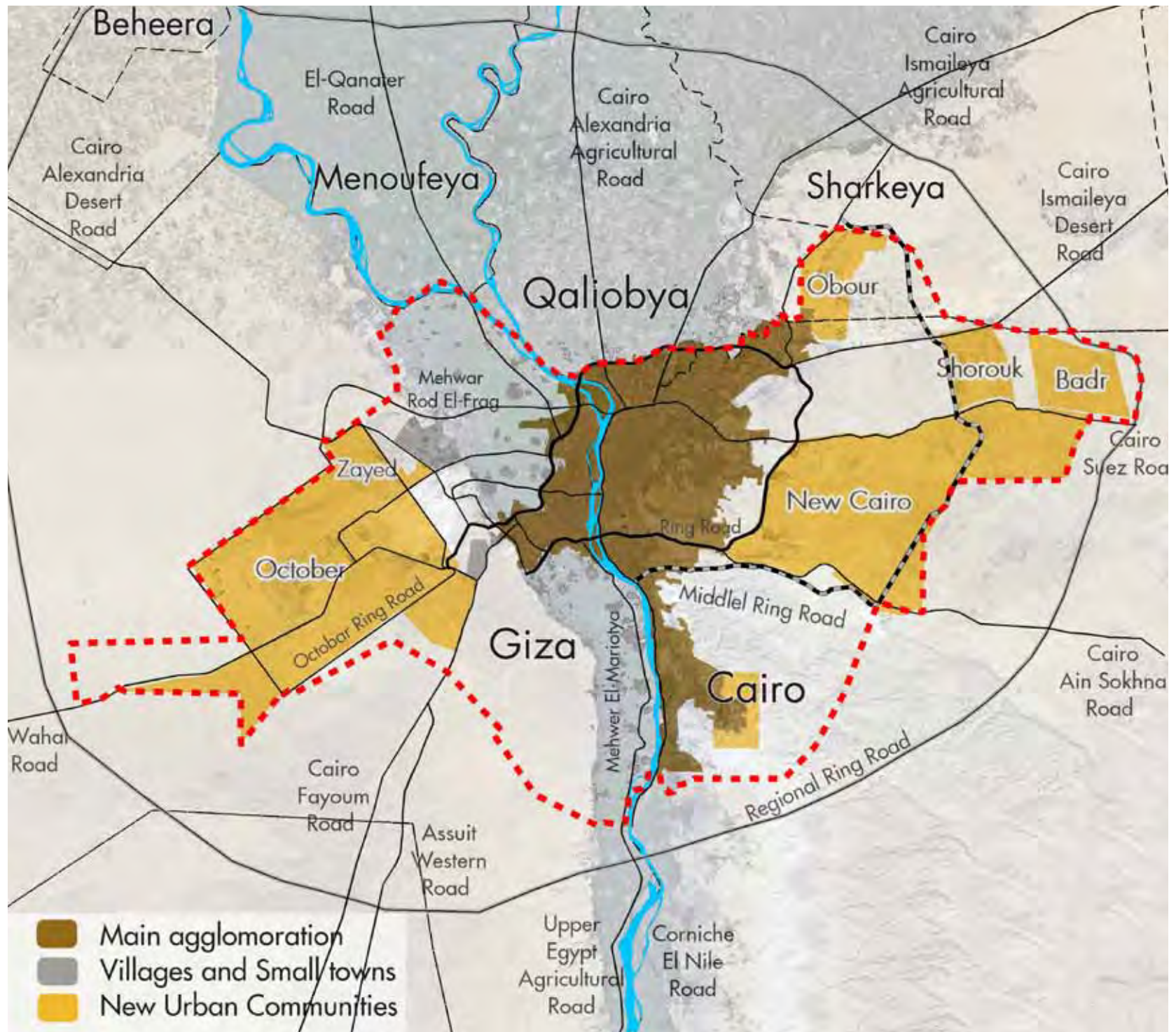
density reaching 12.3 million residents in 2012, representing more than 76% of total GC residents (the study area). The total density of the main urban mass is estimated at 93 residents per feddan. The average of total density in new urban communities in the study area reached 30 residents per feddan.

- The GC includes three different urban patterns, each has its own challenges: The main urban mass, new urban communities and villages as well as small communities.
- The main urban mass is completely full, where very limited pieces of land are available for development; in addition, a large area of the main urban mass was built without proper planning, leading to high population density and great pressure on public services and facilities. This urban mass also includes some areas that are not safe for housing.
- New urban communities provide opportunities for containing a large number of residents; however, their growth rate is still small. Therefore, efforts should be made to increase the growth rates of such communities.
- The GC urban development strategies include directing development processes to new urban communities as population-attractive urban centers; careful planning for areas inside the main urban mass to ease the pressure on them; dealing with unplanned and unsafe areas through suitable urban policies; and adopting ambitious programs for rehabilitating the GC central area.



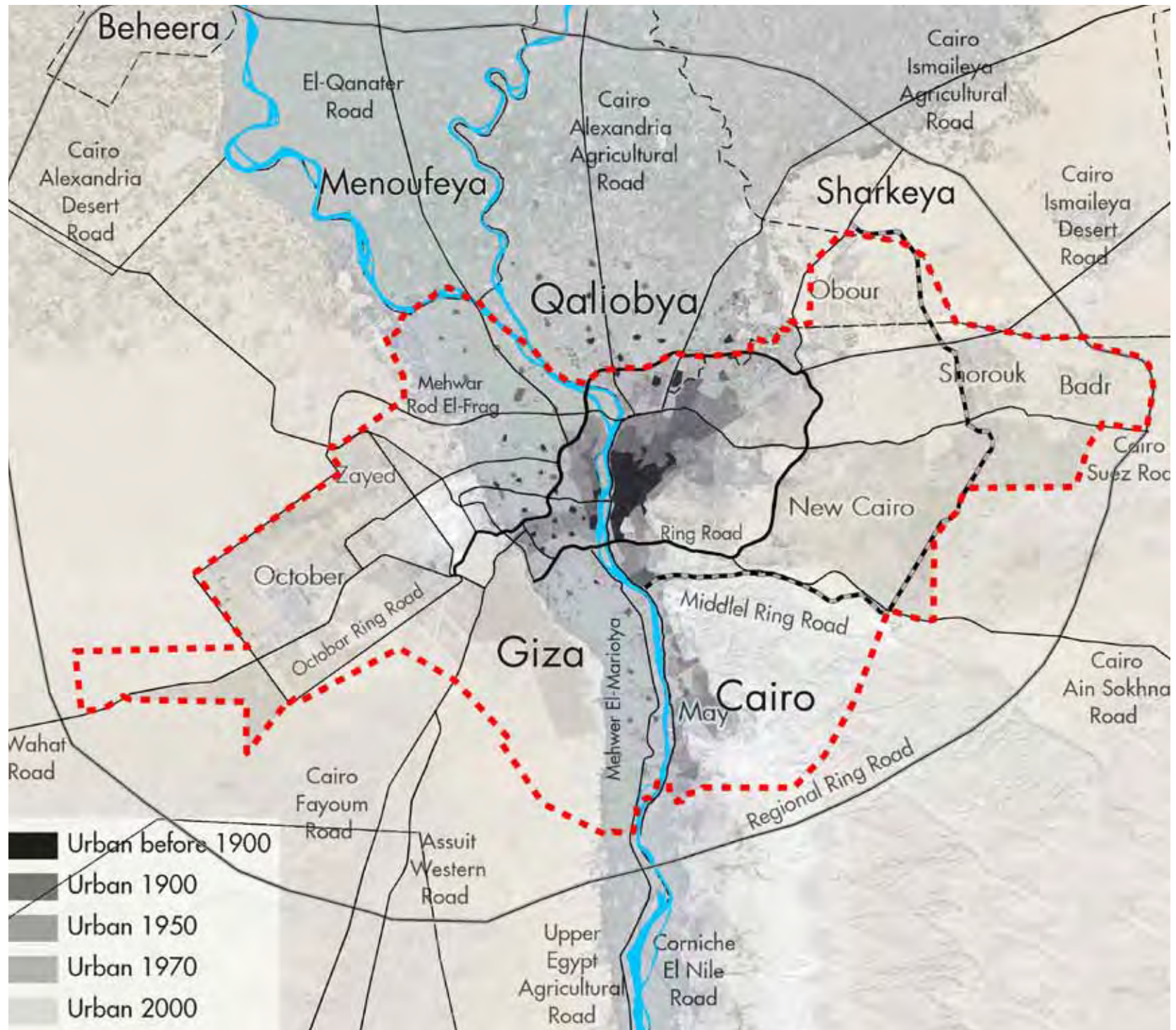
One of the new urban communities

Figure 76: GC Urban Structure in 2012



Source: Database of the GC Geographic Information Systems - GOPP

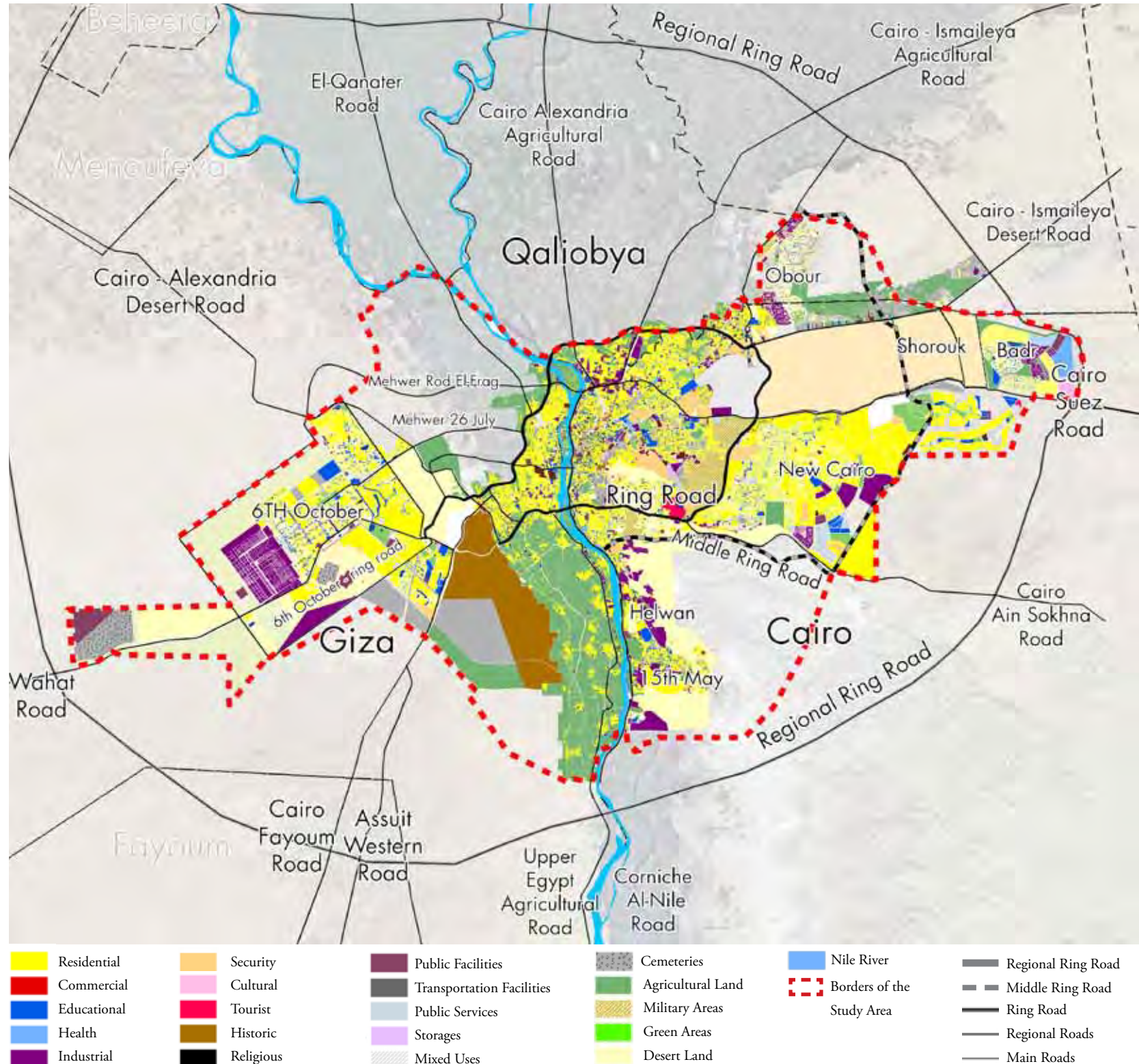
Figure 77: Evolution of the GC Urban Mass



Source: CAPMAS

Source: Database of the GC Geographic Information Systems - GOPP

**Figure 78: Land Use of GC Urban Mass in 2012
(Proposals for empty/desert land use in new urban communities)**



Source: Database of the GC Geographic Information Systems - GOPP

Urban Analysis Study of Homogenous Sectors

A study was conducted on homogenous sectors to carefully analyze the lands and inhabited areas of the GC.

The urban mass was initially divided into 23 urban areas, in addition to three other areas of new urban communities. Such division relies on the following characteristics: The nature of predominant land use, population density, buildings density, type of urban fabric and the availability of natural or urban determinants. Moreover, this division also provides officials responsible for planning with clear understanding of local drivers, and proposes choices for targeted development suitable for each area.

- Analysis studies of land use in the areas of the main urban mass resulted in several main outcomes, as follows:
 - Increasing use of land allocated for housing even in the areas of other non-residential activities (such as: the high population density in the Pyramids area);
 - The large number of industrial buildings that are mainly located in the North in Shubra El Kheima and in the South in Helwan;
 - Institutional/administrative activities are highly concentrated in the middle areas of the main urban mass;
- Great scarcity of empty uninhabited land, where such lands are concentrated in the Eastern part of Cairo governorate;
- High rates of land use for agricultural purposes; such uses are concentrated in Nile Islands in the middle of the main urban mass and the areas located in the South of Giza governorate;
- Very low per capita share of green space in all areas; and
- High total population density in all areas, especially unplanned areas.
- Availability of several opportunities for targeted development as follows:
 - Re-planning unplanned areas to reduce density; and
 - Re-distributing population density in some areas to make the most of land values.

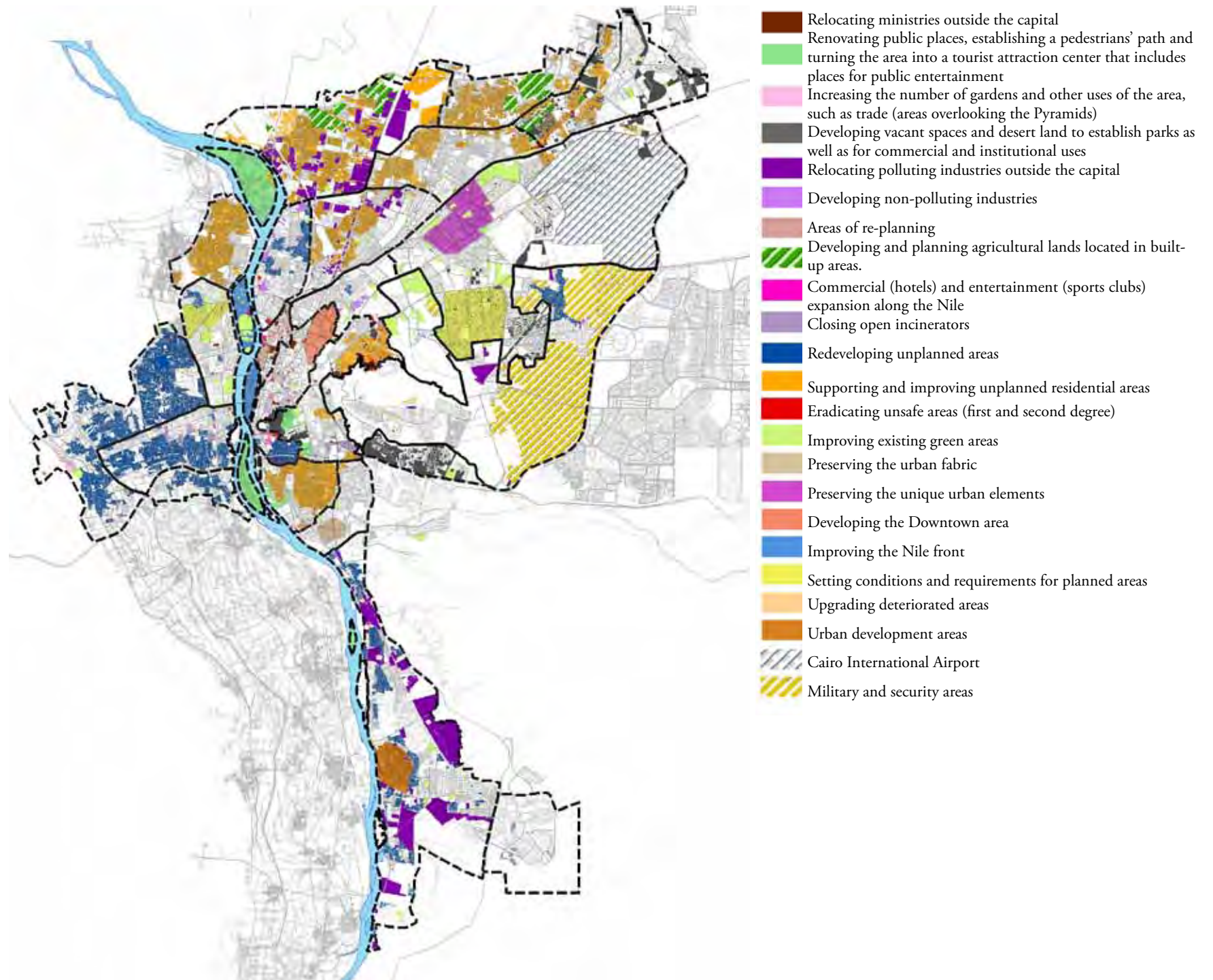
Main Urban Mass is Full

The detailed urban analysis of the GC main urban mass shows its main urban challenges. All of these challenges are related to the GC high densities whether in terms of activities or residential areas; in addition to the limited empty pieces of land that greatly hinder development opportunities, which were defined through achieving best building densities. Some experts indicate that “the scenario of keeping the situation as is” will lead to reducing the average speed of vehicle movement inside the main urban mass by 50%, which is currently estimated at 20 km/hour; this is lower than the natural level compared to the average speed in other cities of the Republic.



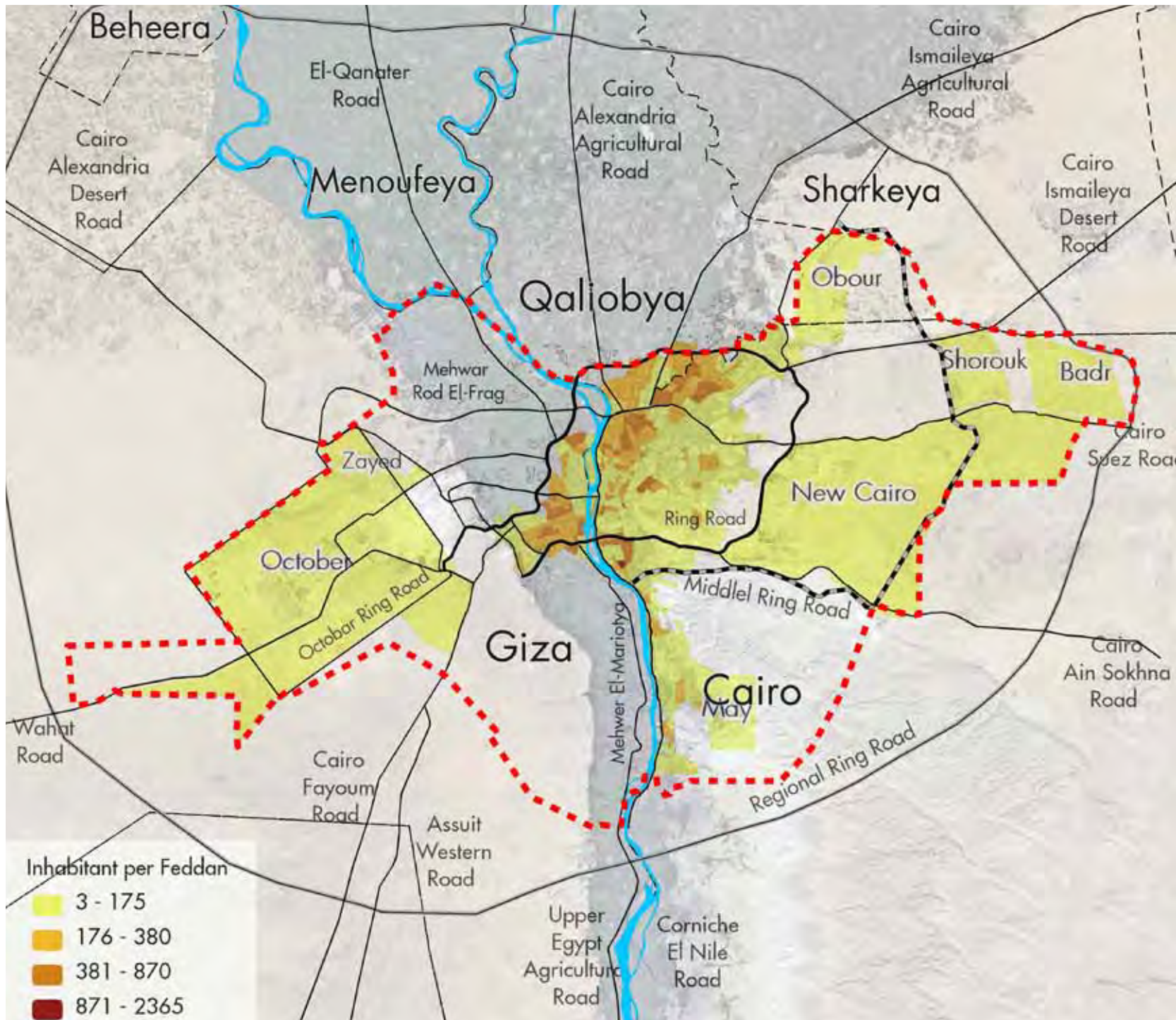
Crowdedness of the GC urban mass

Figure 79: Spatial recommendations inside GC main urban mass



Source: Database of the GC Geographic Information Systems - GOPP

Figure 80: Net Population Density by GC Areas (residents/feddan)



Source: Database of the GC Geographic Information Systems - GOPP

New urban communities do not contain population increase until now

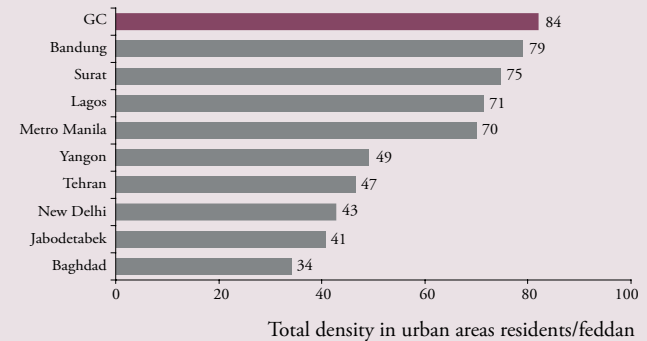
Over the last fifty years, successive government decisions were taken to establish new urban communities in order to contain the population growth. Since the fifties of the last century and throughout the period of implementing several successive urban plans in the GC, investments were allocated for developing new urban areas as shown in Figure 82.

Following the inclusion of the new urban communities in last years, the GC includes six new urban communities: The 6th of October, Sheikh Zayed, New Cairo, Obour, Shorouk, Badr and the 15th of May. Each one of these communities was planned for a main goal that affects the strategy of land allocation as shown in Figure 83 and Table 7.

Comparison between the GC population density and population density in some other major cities

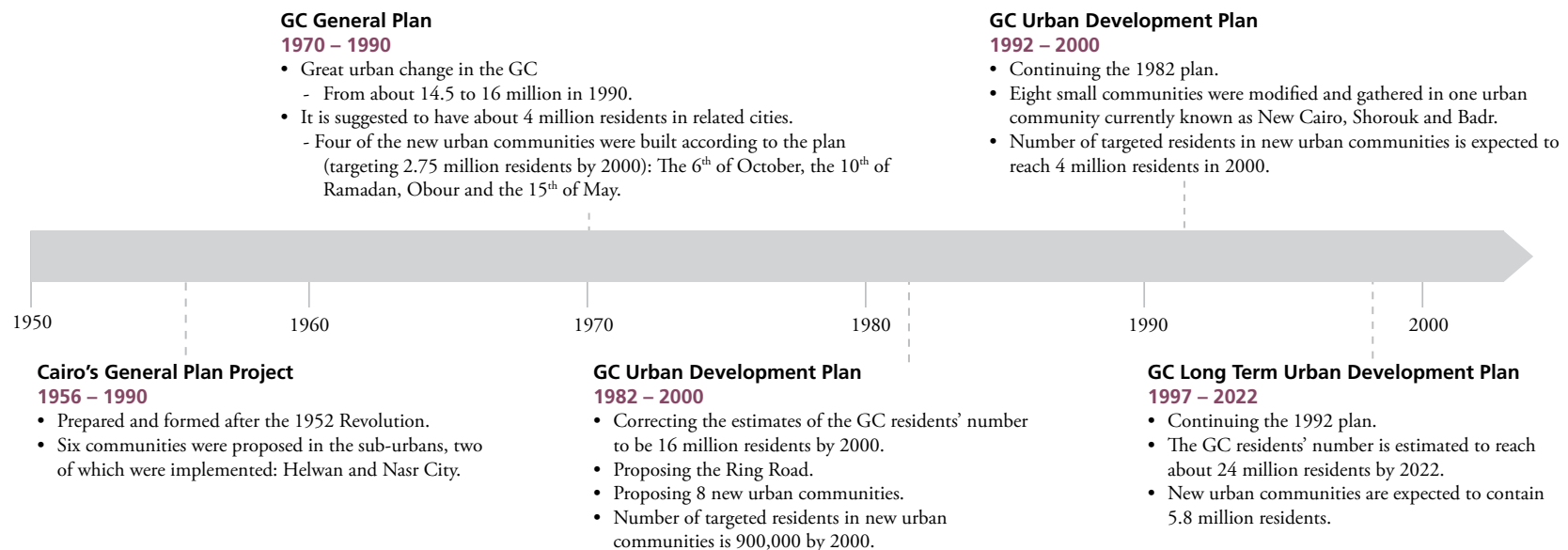
Although the GC total population density theoretically reached about 22 residents/feddan, the GC population is not homogenously distributed. Considering the built-up area (BUA) only, the GC population density reached 84 residents/feddan in some areas. Despite the extensive discussion about the definition of density, this percentage is generally the highest population density compared to high density urban areas and cities as shown in Figure 81.

Figure 81: Population Density of World's Major Cities



Source: World Urbanization Prospects Report, UN, CAPMAS

Figure 82: Historic Development for Establishing New Urban Communities

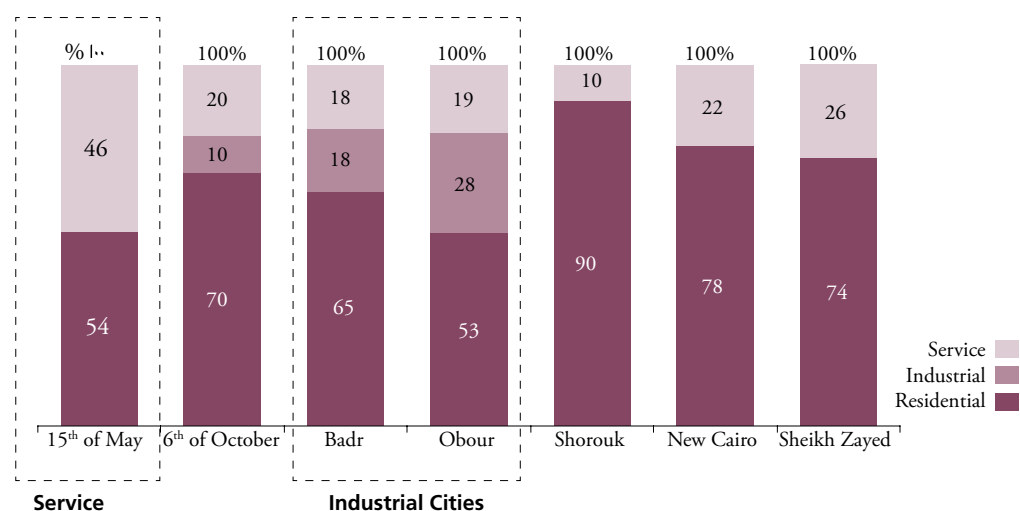


Source: GOPP - JICA

In general, the relocation of residents to new urban communities is much slower than what was planned in the beginning. This is especially due to the disruption of quality of residential units' supply and demand as well as the shortage of job opportunities offered by some of these communities; in addition to the difficulty of reaching some of these areas and the lack of enough public transportation to link the main urban mass to these communities. Moreover, most of the new urban communities did not succeed in attracting the targeted number of residents.

However, the ability of these new urban communities to attract residents witnessed a remarkable improvement during the last decade, with an estimated annual growth rate of more than 10% in 2006. In 2012, the number of residents in the new urban communities was estimated at about 1.45 million residents, where new urban communities managed to attract almost 50% of the GC population increase between 2006 and 2012, especially in the 6th of October and New Cairo. Continuous efforts are currently being exerted to support such growth through improving transportation infrastructure, balanced planning for cities and active marketing for investors and industrial projects; the field in which new urban communities has lately managed to achieve success. Ensuring the continuity of new urban communities' ability to attract more residents is still undoubtedly a major issue for their success.

Figure 83: Land Allocation Strategies in New Urban Communities



Source: New Urban Communities Authority (NUCA), Outlines for New Urban Communities

Table 7: Population of GC New Urban Communities (in thousands)

New Urban Communities	1986	1996	2006	2012
15 th of May	24.106	65.560	90.324	
Badr	-	248	17.172	
New Cairo	-	-	118.678	
Shorouk	-	-	20.983	
Obour	-	997	43.802	
6 th of October	528	35.354	157.135	
Sheikh Zayed	-	-	29.553	
Total	24.634	102.159	477.647	1.455.597

Source: CAPMAS 2012

Land Use

The GC number of residents is expected to double in 40 years, despite the efforts exerted to reduce the average population density in the GC. This requires developing urban areas with a rate bigger than that of population growth.

There are vast desert areas that can be developed. In fact, more than half of these desert areas was decided to be included in plans and schedules of development projects to be used as an extension for new urban communities, according to existing main plans that avoid the formation of unplanned expansion.

Land Use Sector – Analysis of Main Results

Strengths/Constituents

- Diversity of economic activities in the GC;
- Quick and dynamic real estate development; and
- Large inventory of vacant houses.

Weaknesses/Problems

- Unsafe and unplanned areas;
- Shortage of medium and economic housing;
- Lack of an efficient system for real estate finance; and
- Limited green spaces.

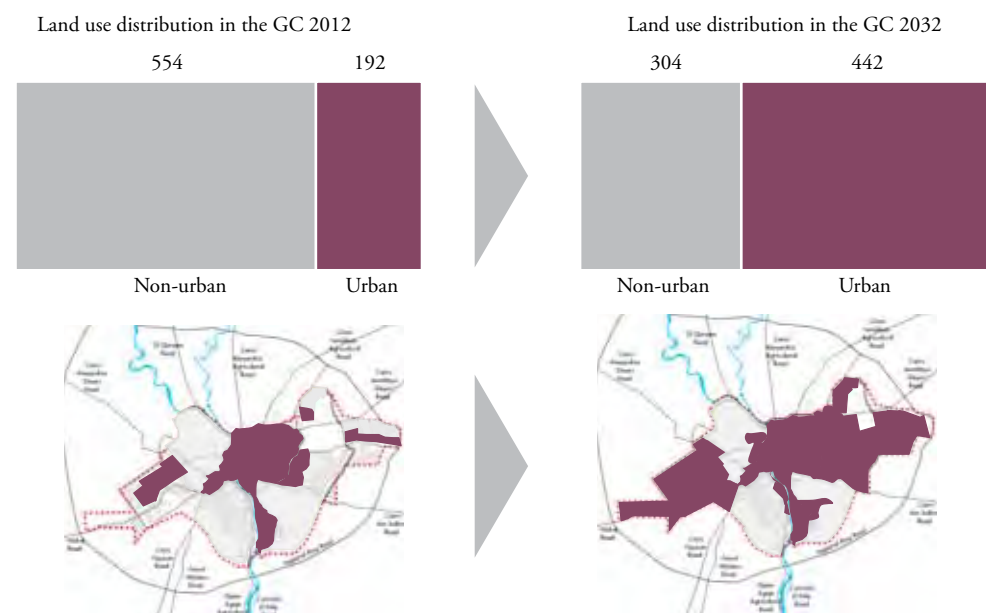
Opportunities

- Global, regional and local massive investments in the housing sector;
- Vast desert land suitable for urban expansion; and
- Relative stability of Egyptian real estate market.

Threats

- Recession in the real estate market;
- Expected high increase in the number of residents
- Quick and continuous legal amendments; and
- Failing to abide by the proposed plan for land use.

Figure 84: Expected Development of GC Land Use Distribution from 2012 to 2032 (in thousand feddans)



“The GC urban area will increase from 26% in 2012 to 41% in 2032.”

NB: Most of current urban areas are located in dispersed locations within new urban communities. The areas highlighted in the Figure above are for illustration only.

Source: GOPP according to GIS Database and main urban plans of governorates

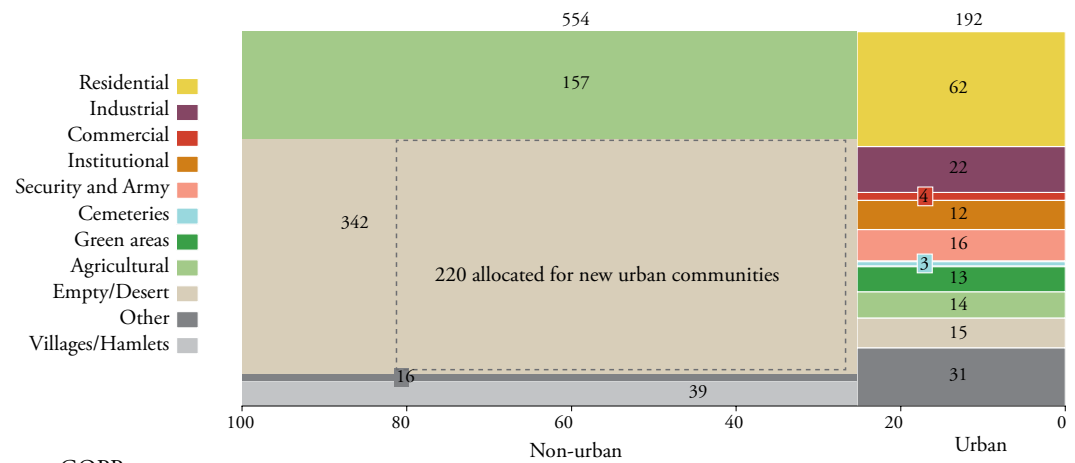
Strategy of Urban Development and Land Use

Urban Development

The GC planning aims at forming a multipolar urban area with polycentric poles. Moreover, the main urban mass, that used to represent the only center in the GC, will be supported through establishing new attracting centers in new urban communities and future urban development areas. In addition, areas located between the main urban mass and new urban communities (desert and agricultural land) will be considered as interfacial buffer zones that allow controlling future urban growth accompanying high-density local urban development projects.

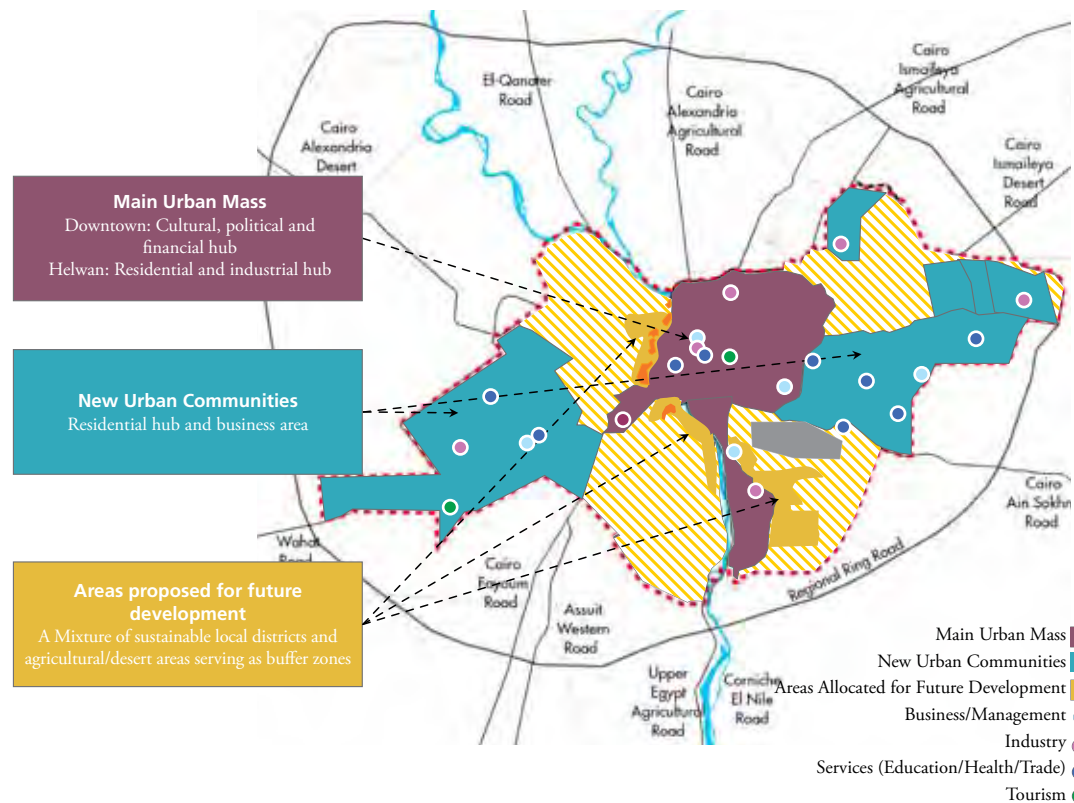
The GC plan also aims at improving the residents' standards of living through establishing sustainable districts that have mixed uses; in addition to the rarefaction of high-and-medium density districts through utilizing low-density areas and benefiting from the desert land that can be used in future urban expansion. This will limit urban expansion that require costly and massive main infrastructure; in addition to limiting the dynamics of districts and reducing the sense of belonging.

Figure 85: Constituents of GC land use in 2012 (in thousand feddans)



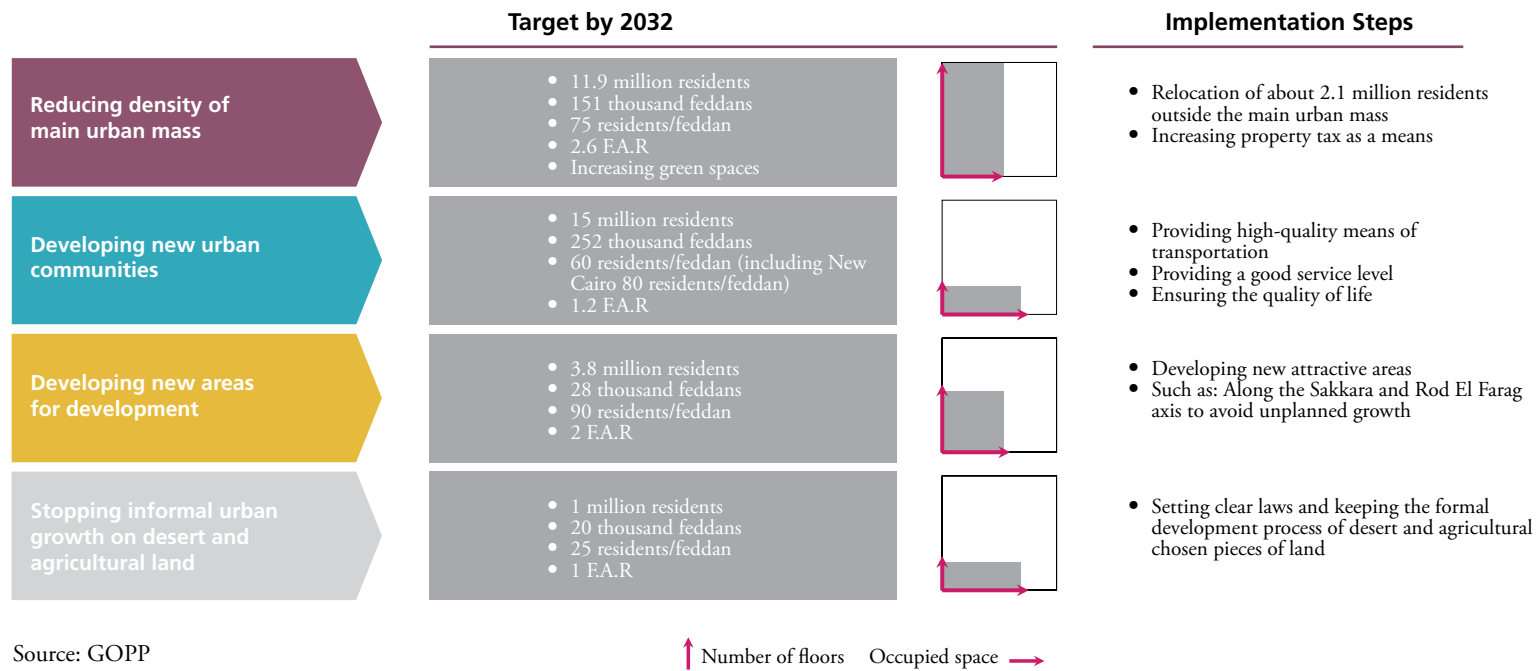
Source: GOPP

Figure 86: Development Pivots



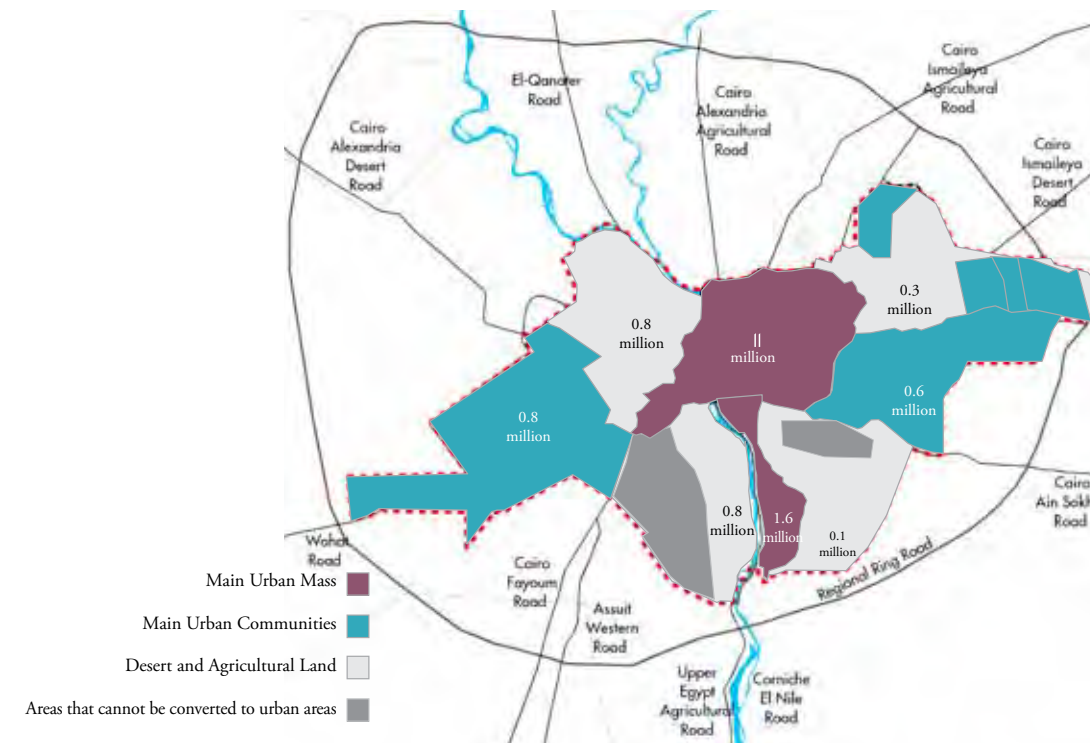
Source: GOPP, Governorates' Reports

Figure 87: Four axes for areas of distinguished urban fabric and four development strategies



Source: GOPP

Figure 88: Population Census in 2012

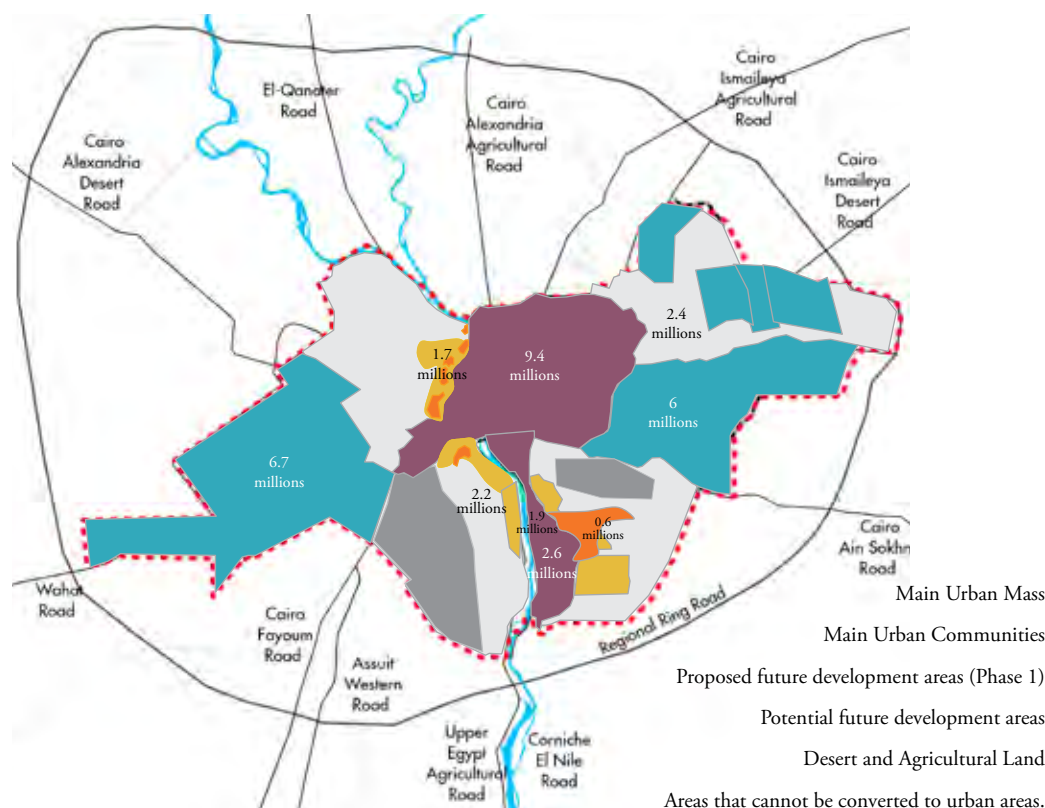


Source: CAPMAS 2006, Main plans for new urban communities, GOPP

The GC strategic vision considers current and future different characteristics in various GC areas. Therefore, these areas were divided according to three main goals as follows:

1. Rehabilitation of the GC main urban mass;
2. Development of new urban communities; and
3. Implementing urban development projects in new areas.

Figure 89: Population and New Urban Development Projects in 2032



Source: CAPMAS 2006, Main plans for new urban communities GOPP, Governorates' Reports

1. Rehabilitation of the GC

Main Urban Mass:

The GC main urban mass currently suffers from massive overpopulation and high population density, as it is completely full. It also suffers from limited number of empty spaces. On the other hand, current indicators show a decrease in the average family size with the number of housing units almost stable, leading to a general decrease of the number of residents in Cairo and Giza cities.

In addition to natural indicators, effective procedures were taken to reduce population density through developing parts of unplanned areas, activating property tax laws and providing

alternative areas in new urban communities. This will help create a balance between population growth and the decrease of population density in the GC main urban mass.

The main challenge inside the main urban mass is to deal with unplanned and unsafe areas which pose danger on their residents. The development of such areas may require removing parts of their buildings. Regarding unsafe areas, alternative houses will be provided before starting the development process through letting the residents choose either to take financial compensation or an alternative house in the same location in case of available usable

“ Population densities in the GC will be redistributed; in addition, future growth rates will be directed to new urban communities ”

pieces of land in the area. If no pieces of land are available or if the construction process cannot be accomplished, providing an alternative house in neighboring areas will be the only choice. But for unplanned areas, a gradual development will be implemented through providing the infrastructure and improving services. Moreover, developing new urban centers on desert land will undoubtedly prevent the growth of unplanned areas on the borders of the urban mass.

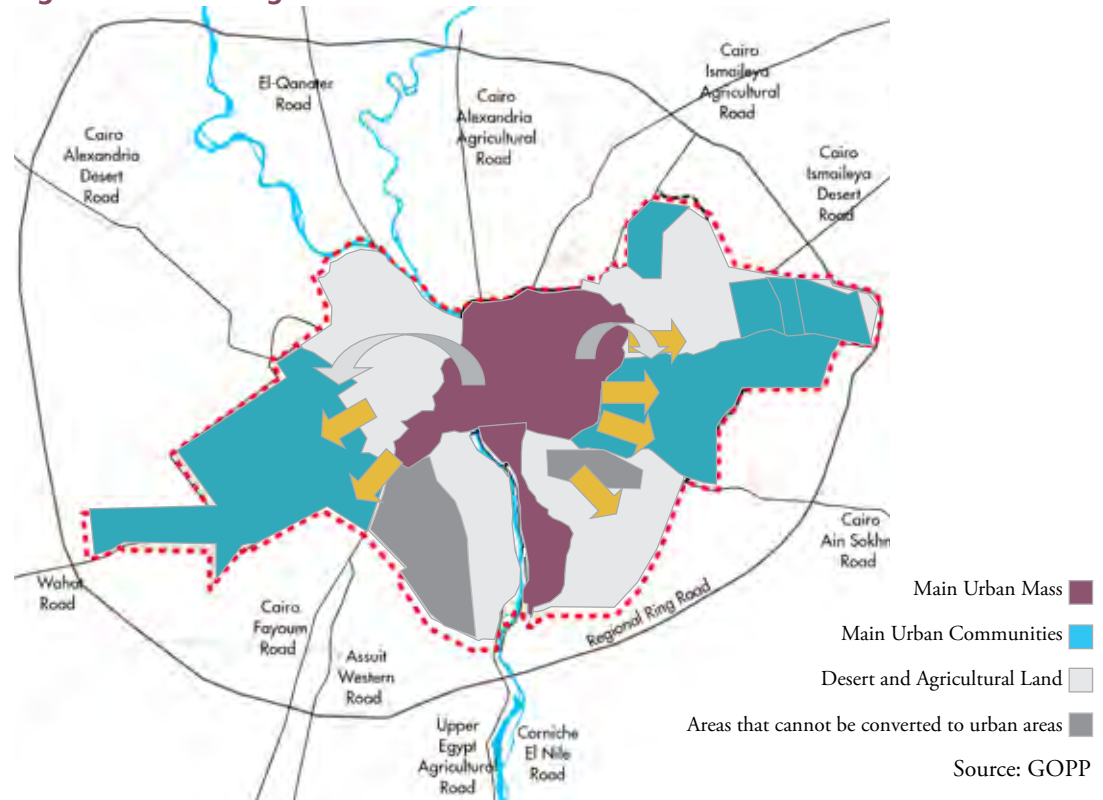
Large projects will also be carried out to revive the cultural and historic areas that are located within the main urban mass; in addition to developing centers for tourist and commercial investment. Moreover, buildings of archeological and historic value will be developed to enhance the appearance of a touristic attraction center in the Downtown area as well as a center for business and developed retail trade. Consequently, the city (central urbanism) will preserve its residential characteristics in light of being developed as a prosperous area for political and cultural activities as well as global investments.

2. Directing development processes towards new urban communities

Developing cities of multiple activities and centers

New urban communities will be converted to vital centers for diversified economic activities including residential activities, business and finance centers and recreational activities. New urban communities should contain about 8 million residents and must act as independent centers that contain specialized districts in each field. They also must be linked through housing uses, economic activities and transportation to support their continuity as integrated communities for living.

Figure 90: Reducing Pressure on Cairo and Giza



“ New urban communities will act as vital centers for several economic activities including residential activities, business and finance centers and recreational activities.”

Main requirements for moving to new urban communities

Developing new urban communities to act as attracting centers and cities will not be achieved unless by providing a suitable standard of living for all segments of society through establishing an integrated and coherent urban fabric, which will increase the per capita share of green areas and services and achieve balance between job opportunities and housing, as well as decreasing daily travel distance. This requires improving the means of transportation leading to and inside these communities, to make the travel distance for daily activities in a circle of 5–7 km radius (travelling from home to work/school/recreational areas/stores...etc.); such improvement would represent an incentive for residents to move to these communities. Regarding exceptional travels such as going to the Downtown area or for the purpose of get some administrative procedures completed, the

radius of their travel circle will reach about 20 km.

Ease of moving must also be provided. These communities should ensure the proximity of residents to their work places. Thus, residents should choose between the travel time on one hand and the quality of services and good job opportunities on the other. The new urban communities will also provide educational and recreational facilities that will meet the needs of dwellers in areas that include residential, economic and service uses.

In this behalf, preference goes to establishing urban communities that offer a mixture of uses and activities. It is expected that districts and neighborhoods that include residential, service and industrial activities (except for polluting industries) as well as trade and investment activities will have a role in building a strong local economy and decreasing traffic density; in addition to reducing

the time taken to reach work and carry on other daily activities. This will undoubtedly lead to cutting high air pollution rates and environmental degradation, as well as improving urban environment. Moreover, this will ensure the vitality of all activities in these new urban communities all over the day.

New urban communities will contain a social mix that ensures the sustainability of the society as a homogenous self-contained entity that is able to survive and grow. The current formation of some of these communities includes a limited social mix because available housing options do not meet low-and-middle-income families, which are a fundamental element for the survival and continuity of any city.

Furthermore, building housing units for low-and-middle income families near areas of work and



Level of housing in one of the new urban communities

activities will minimize the travel time and distance that is currently resulting in high traffic density. Previous experiences showed the dangers of these gaps that mostly lead to unplanned urban sprawl.

Finally, the planning system of the social and urban pattern will help support social cohesion and harmony. This will naturally result from the proximity of daily services such as work and schools, ensuring the interaction between residents. New urban communities will also establish gathering places including public gardens, green areas and cultural forums (such as museums, cinemas and sport clubs). This will enhance the sense of belonging to these new urban communities.

Ensuring Diversity to Preserve Existence

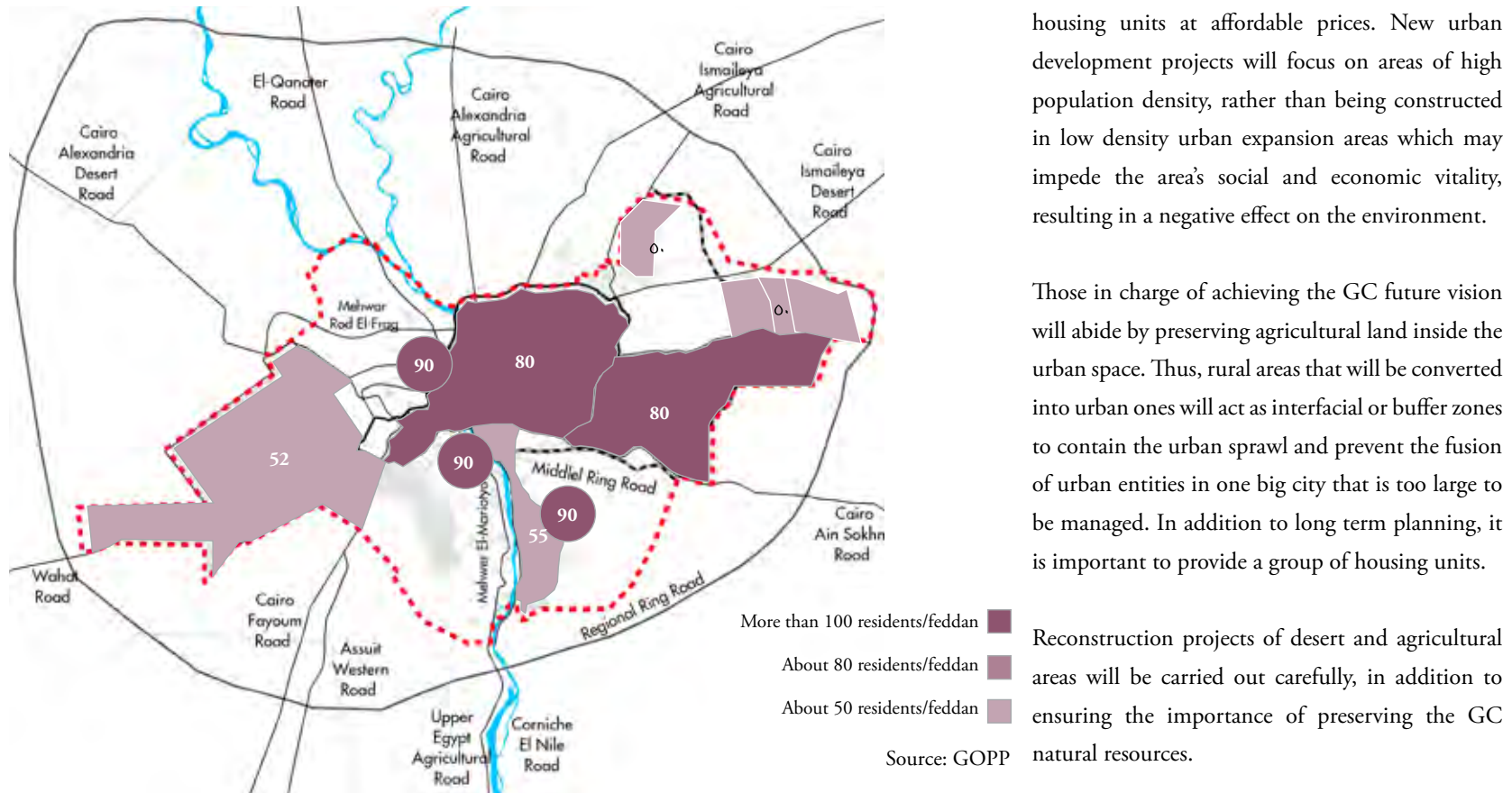
While new urban communities are meant to include areas of integrated and mixed uses, they should consider diversity. Each new urban community, at least large ones, must have unique characteristics to contribute to achieving cooperation and integration among sectors and avoiding redundancy. Moreover, the distribution of activities should lead to diversified specialties for new urban communities, ensuring the sufficiency of these activities and

achieving relative independence in each one of them. Each community must ensure that it has the required opportunities and potentials in every field to be unique in its specialty. For example, the 6th of October will have a tourist direction, in addition to its industrial and economic characteristic because of its proximity to some tourist attractions such as the Pyramids Plateau and the future-planned airport. The project of establishing a tourist complex and a global city for science and knowledge will provide the city with the trait of a world-class educational tourist destination. On the other hand, New Cairo will benefit from its proximity to the Downtown area to be a center for business, finance and trade. Such direction has already been considered and will be highlighted in the future.

This planning will allow the GC main centers represented in the main urban mass, the 6th of October, New Cairo and surrounding new communities to adopt strategies for mixed use of special directions. In addition, Cairo and Giza cities will continue to have their economic, cultural and political roles, while Helwan will preserve its residential and industrial role, excluding polluting industries.

“ Travel distance of daily activities will be reduced to a circle of 5– 7km radius (moving from home to work/ school/recreational places/stores... etc.) ”

**Figure 91: Future GC Density
(Total Population/Urban Areas)**



3. Implementing urban development projects in new areas

The main urban mass and new urban communities will not be able to contain the population growth completely. This will require gradually converting high value agricultural and desert land into urban areas in a limited and directed way. Away from the need of these areas to serve and contain population growth, they will be developed through a previously set plan and working methodologies that prevent unplanned urban sprawl. Furthermore, the proximity of these areas to the main urban mass

is indeed the reason for the quick expansion of unplanned areas.

Moreover, one of the constituents of achieving the future vision of the GC is supporting the implementation of containing or encircling unplanned areas in order to prevent their sprawl to the main urban mass and the neighboring areas. Thus, Phase 1 of the plan will be confined to a gradual specific development of urban areas in the north and along Rod El Farag Axis. On the other hand, Sakkara Road project aims at developing an area of 7500 feddans of desert land.

In Phase 2, the western bank of the Nile River facing Helwan can be reconstructed to provide housing units at affordable prices. New urban development projects will focus on areas of high population density, rather than being constructed in low density urban expansion areas which may impede the area's social and economic vitality, resulting in a negative effect on the environment.

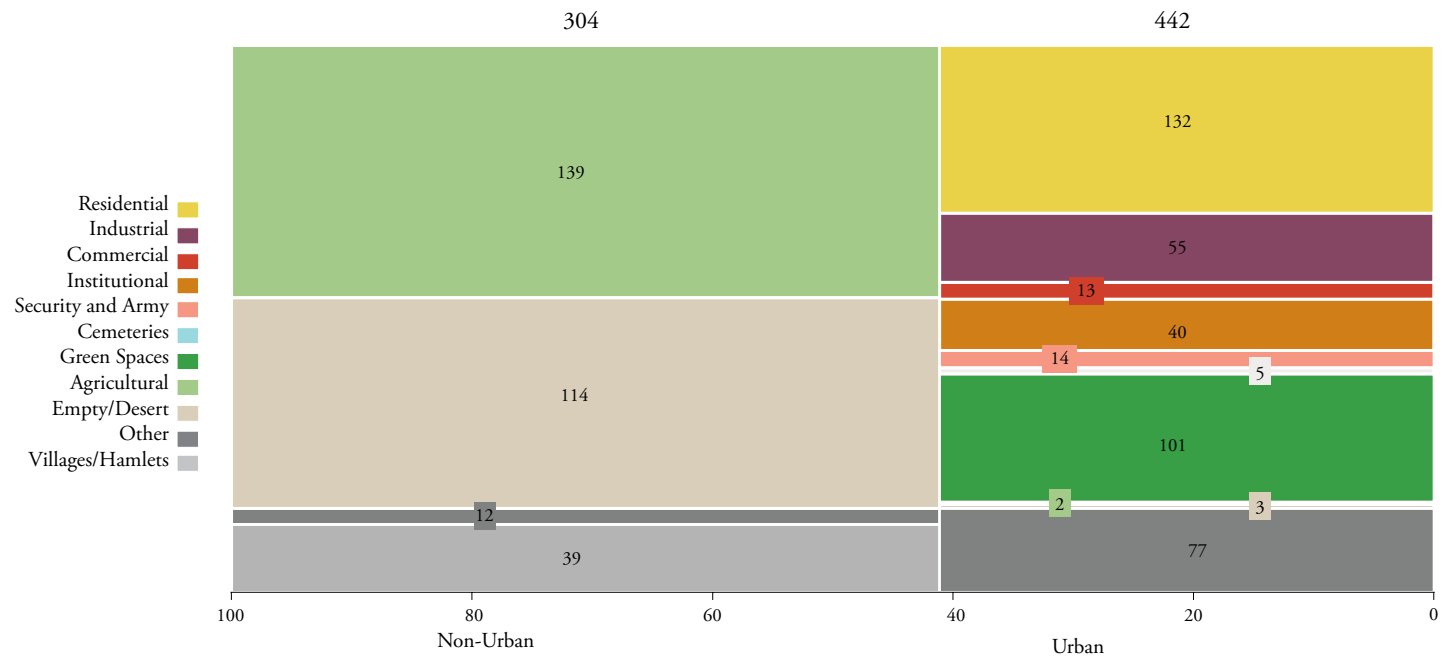
Those in charge of achieving the GC future vision will abide by preserving agricultural land inside the urban space. Thus, rural areas that will be converted into urban ones will act as interfacial or buffer zones to contain the urban sprawl and prevent the fusion of urban entities in one big city that is too large to be managed. In addition to long term planning, it is important to provide a group of housing units.

Reconstruction projects of desert and agricultural areas will be carried out carefully, in addition to ensuring the importance of preserving the GC natural resources.

Land Use Indicators

Along with proceeding with the project, the needed pieces of land of new urban communities will be allocated. This includes, for example, empty and desert land. In addition, the benefit from using the empty land located in the main urban mass will be maximized. Besides, vacant pieces of land located inside built-up areas will be developed to be either urban areas or green spaces. As for Nile Islands, they will be developed as nature reserves with the minimum number of development projects.

Figure 92: Future GC Land Use Patterns in 2032 (in thousand feddans)



Source: GOPP

The calculation of the needed pieces of land in the GC future vision during the next two decades relied on population growth estimates and their needs of services and facilities. Moreover, the calculation of the land assigned for residential purposes in the vision relied on achieving the targeted density rate. Besides, the allocation of the required pieces of land for administrative causes relied on indicators of services such as education and health. Furthermore, pieces of land required for economic and commercial activities were estimated relying on population growth and expected increase in consumption and expenditure. In addition, the size of industrial areas is related to the development of industrial sectors and resulting job opportunities.

There is a harmony between land use and the principles of strategic plans for new urban communities. They also cope with the patterns of urban development projects set by the GOPP in main and secondary areas. These goals will act as guidelines for enhancing and unifying urban development plans. Moreover, they will be formulated on the regional level and will act as the main plans for areas proposed for urban development.

“ Projects for developing desert areas will be handled very carefully, while highlighting the importance of preserving all the GC natural resources. ”

Housing

The GC housing situation is a great challenge resulting from the imbalance between supply and demand in this sector.

The existence of unplanned areas is the largest challenge facing the GC housing sector.

Strategic directions include dealing with unsafe residential areas and providing alternative houses for residents, developing unplanned areas and enabling the private sector to establish housing units at affordable prices for low-and-middle income segments; in addition to forming a social mix in all districts.

Present Situation

The GC housing sector faced negative effects resulting from the enormous population growth witnessed by the GC in the last decades.

The main challenge in the housing field is the widespread of unplanned areas inside the main urban mass. According to recent studies, unplanned areas cover about 40% of the GC area, with a total area of 22500 feddans and population density of 800 residents/feddan. Moreover, these areas continue to grow with an annual rate of 2.5%, while GC planned areas grow at an annual rate of less than 40%. In addition, a large part of these unplanned areas sprawl on agricultural land.

The growth of the GC unplanned areas can be attributed to the inability of available housing units to meet the increasing demand on houses, in terms of costs and not in terms of quantity. Regarding the increasing number of residents, the informal or unplanned housing now has a great competitive advantage over the costly formal alternatives. The cost of unplanned or informal housing is much less, especially with the lack of housing opportunities for low-income segments. In addition, unplanned areas are located near main activity centers in the city; thus job opportunities are close to the location of unplanned areas as well as to main routes as shown in Figure 93.

It is worth mentioning that the start of the growth of unplanned areas resulted from the lack of strict urban management, in addition to the weak application of related laws.

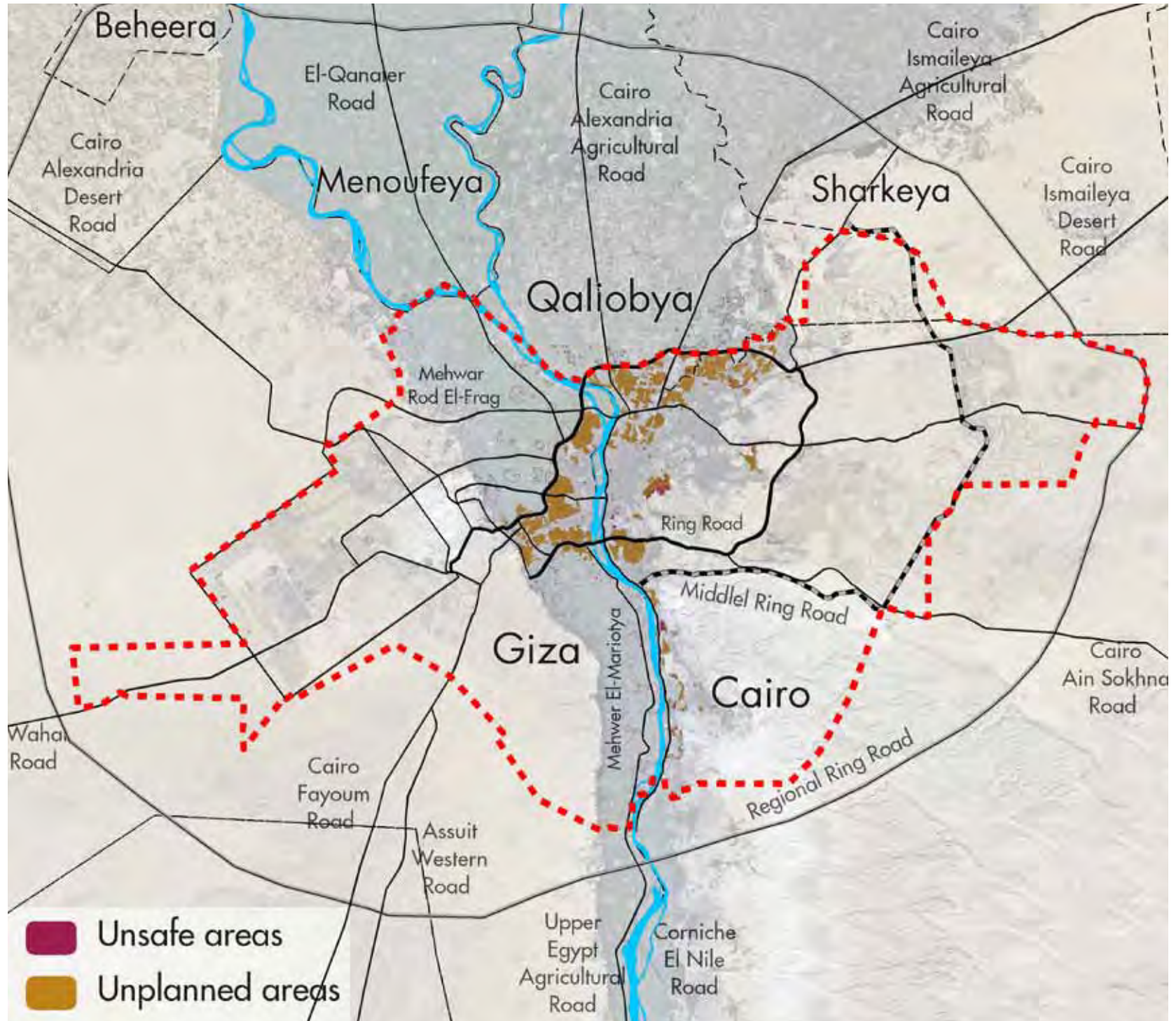
One of the common mistakes is the belief that unplanned areas are poor. Population census statistics and several economic and social studies showed most unplanned areas in Cairo include families of various income levels. Moreover, indicators showed that their standard of living is not much lower than the middle class in planned areas. Furthermore, unplanned areas usually include several active small and micro projects, in addition to some medium projects which provide most job opportunities in the GC.



Nevertheless, unplanned areas suffer from several problems. Their residents are unable to receive basic infrastructure services such as drinking water supplies, sanitation services and electricity supplies; they also suffer from poor roads and improper disposal of solid waste. They also cannot benefit from public services such as schools, clinics, hospitals and public gardens. Consequently, the dwellers of these areas suffer from poor living conditions.

In this framework, it is clear that the most dangerous issue suffered by the unplanned areas is the unsafe areas, where their residents face considerable dangers such as natural disasters including earthquakes and landslides. According to 2012 inventories prepared by Slum Development Fund, the GC (study area) includes 100 unsafe areas of about 1058 feddans, including more than 61000 housing units.

Figure 93: Unplanned Areas in the Main Urban Mass



Source: Database of the GC Geographic Information Systems - GOPP – Slum Development Fund

GC Unsafe Areas

In 2008, the Slum Development Fund was established to achieve specific goals including solving the problems of these areas, especially the dangers posed by unsafe areas, through coordinating efforts and directed financing programs. The Fund's scope of work expanded to include unplanned residential areas as well as random markets and industries in rural areas.

Unsafe areas were ranked according to the severity of danger level. Therefore, the Slum Development Fund developed a detailed classification of unsafe areas. According to this classification, unsafe areas were defined as those areas having 50% or more of their buildings meeting one or more of the following standards that are arranged according to the degree of danger.

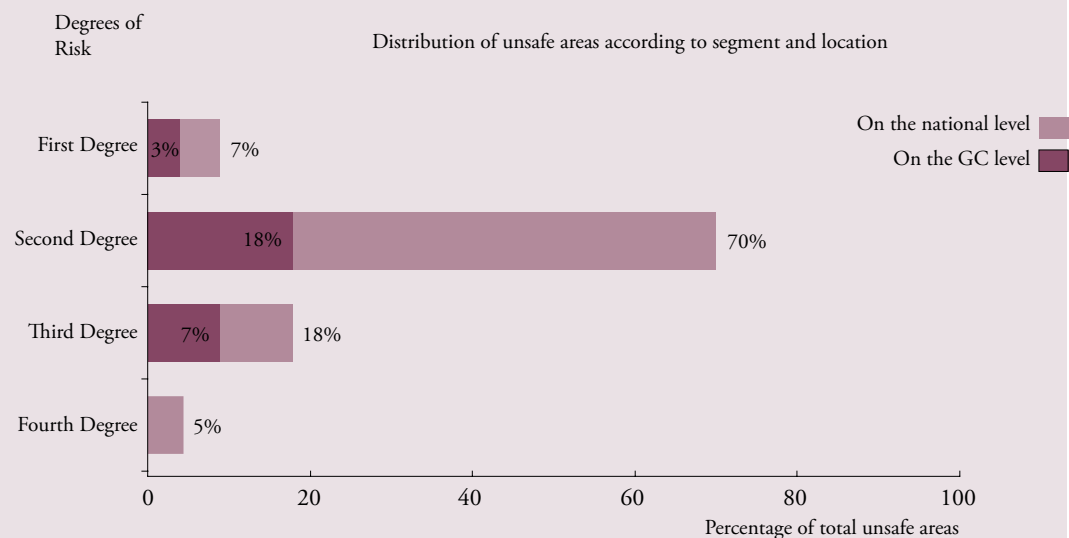
1. Areas exposed to life threatening conditions are the areas exposed to the following:

1. Mountain collapses;
2. Floods; and
3. Railway accidents.

2. Areas that contain buildings that can be described as follows:

1. Having structural elements (such as walls, floors or ceilings) built using construction waste;
2. Built on pieces of land whose soil is not suitable for construction; and
3. Having dilapidated buildings.

Figure 94: Classification of unsafe areas by danger level and location in 2012



Source: Slum Development Fund (2012)

3. Areas that threaten public health:

1. Areas lacking clean water or improved sanitation;
2. Areas affected by industrial pollution; and
3. Areas located under high voltage networks.



4. Areas that threaten stability:

Areas where residents lack stable tenancy whether of rented or owned units. Real estate owners have the absolute discretion to dispose with their property.

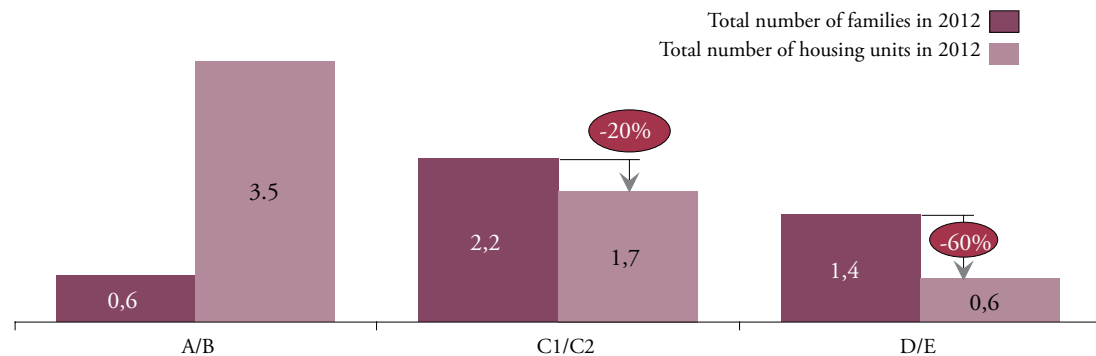


Partial discrepancy between housing supply and demand

The GC has a large number of housing units, where the construction process increased rapidly in the last period, especially in new urban communities. Nevertheless, many problems hinder the flexible performance of the housing market, including:

- Offered housing units do not meet the type of demand in the market. During the last few years, the private sector adopted a fixed direction to provide housing units for high-income social segments, leaving behind low and middle income segments. In addition, terms and standards of planning and construction created motives that gave the priority for establishing high-cost housing units;
- There is a large number of empty housing units, whether built by the public or the private sector (these are mainly the luxury and upper middle class housing units). Over the years, the public sector established housing units on remote desert land that lack enough job opportunities for low income families; therefore, such units remained vacant. Regarding the private sector, the Rent Law does not provide encouraging motives to establish housing units for low income segments; and
- The mortgage market suffers from some defects. Even after the latest changes, informal housing units are still excluded from the mortgage system and values of installments exceed the capacity of most of the residents.

Figure 95: Number of families and available housing units according to income segments in 2012 (in millions)



NB: (A/B/C/D/E) represents residents' income segments from top to bottom.

Source: GOPP

There is a major discrepancy between supply and demand in housing units in the GC during the last decade as shown in Figure 95. In addition to other factors, such contradiction contributed to the establishment of unplanned areas. Offered housing units in the GC, especially in new urban communities, focus on high income segments as a result of the laws that reduce density, beside the increasing rise of land value. Moreover, the limited supply of housing units offered to low and middle income segments in new urban communities are not accompanied by providing job opportunities; they only attract those who are able to commute. Accordingly, informal establishments of unplanned areas act as practical solutions for creating affordable housing opportunities for low income segments.

“ Limited supply of housing units offered to low and middle income segments in the GC led to the establishment of unplanned areas. ”

Efforts and laws regulating the provision of housing units for low and middle income segments

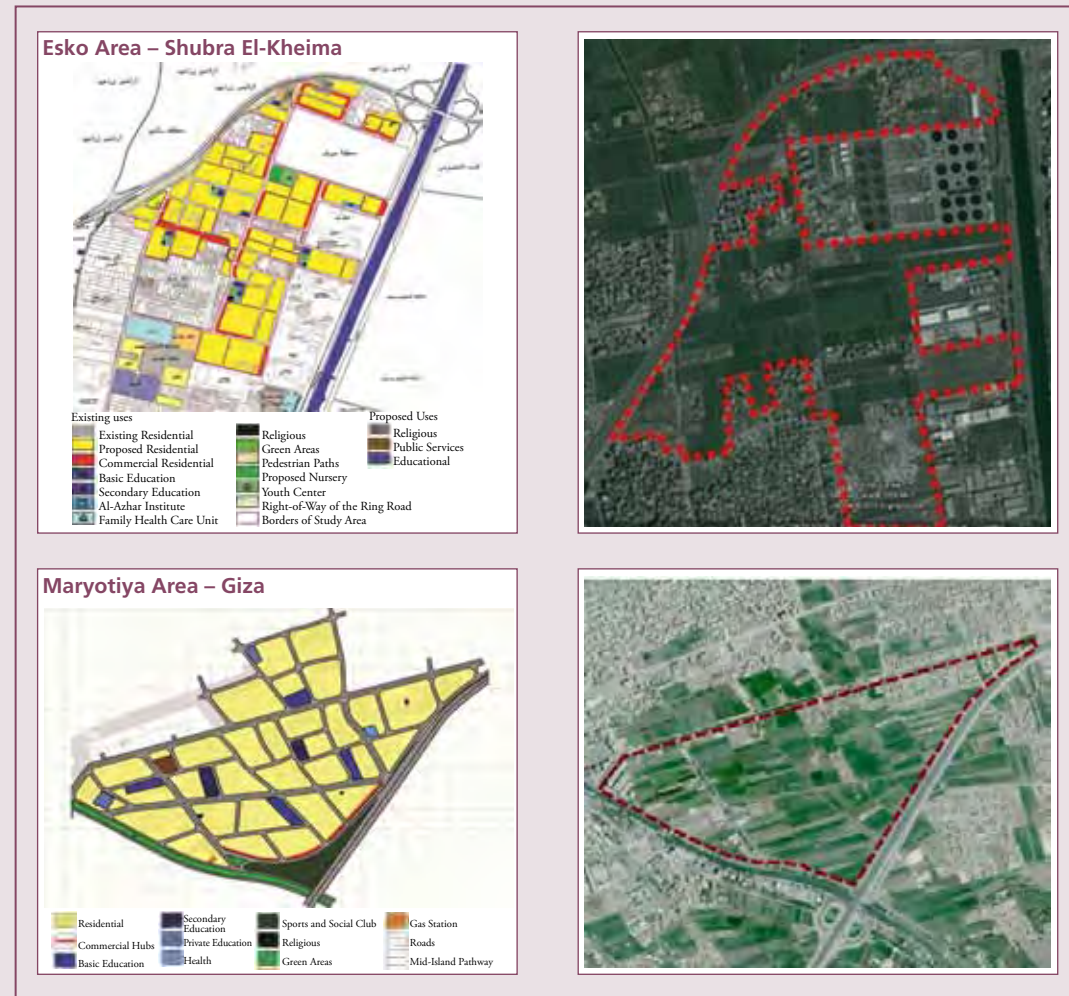
Containment (encircling) of unplanned areas and providing houses for low and middle income segments

In parallel, two main initiatives will be implemented to stop the sprawl of unplanned areas in order to provide the required number of housing units at affordable prices. These two initiatives are the encircling (Tahzim) project and “Build Your Home” project.

Specific GC areas were allocated for low and middle income housing projects to be built by the private sector. The encircling project is one of the most important initiatives adopted by the government to control the expansion of unplanned areas and improve their living conditions. In addition, other areas allocated for establishing low and middle income housing units will be added in specific unplanned areas. The government will be responsible for constructing the main infrastructure of the whole area. It will also support the foundation of housing units for low and middle income segments. This initiative has already been carried out in 9 unplanned areas located in the middle and north of Cairo governorate such as Ezbet El-Haggana and Manshiyat Naser. Moreover, main strategic plans were successfully devised to effectively encircle and enhance the nine areas. These plans are currently being implemented.

Other areas will play a part in containing or controlling unplanned urban sprawl and

Figure 96: Models of Encircling Projects for Unplanned Areas



dealing with population growth problems through offering new development opportunities in areas near existing urban districts via giving priority to allocating these areas (new districts) to secure alternative housing options for relocated families as follows:

- An area of 2940 feddans within the circle of the Ring Road with a target density of 100

residents/feddan that can contain more than 70,000 housing units;

- An area of 3400 feddans outside the Ring Road with a target density of 100 residents/feddan that can absorb more than 85,000 housing units; and
- An area of 12,900 feddans near Helwan with a target density of 100 residents/feddan that can absorb more than 320,000 housing units.

First, the areas located within the circle of the Ring Road will be developed; then, the implementation of development projects for areas outside the Ring Road will follow, and the area situated near Helwan will be developed later according to the size of demand on housing.

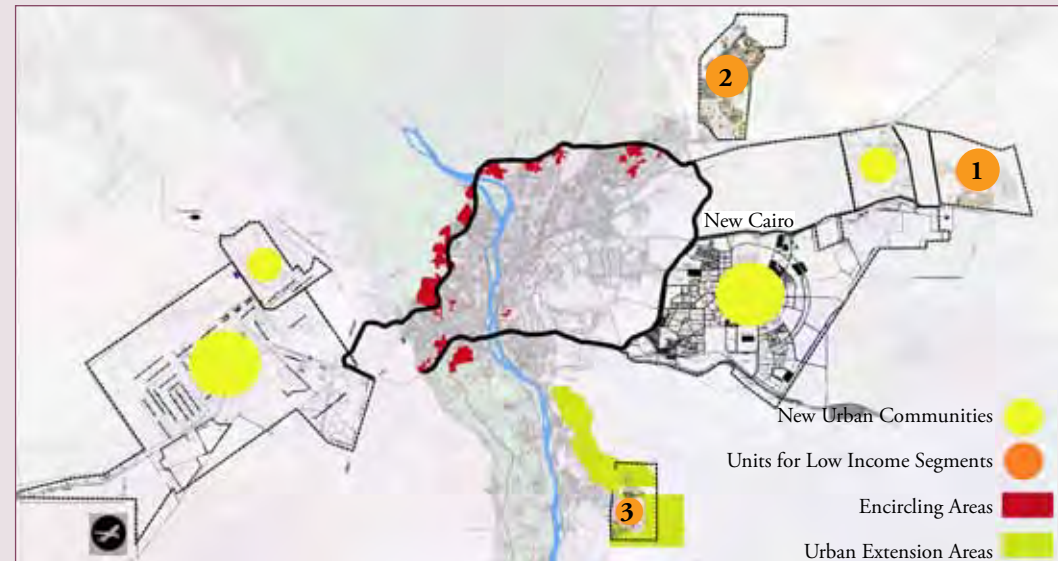
To encourage housing projects for low income segments, the Ministry of Housing, Utilities and Urban Development has launched the “Build Your Home” project to offer affordable residential pieces of land. The Ministry provides required infrastructure in chosen areas (new urban communities in particular), then the land is divided into pieces of 150 m² each to be allocated to residents who meet specific economic and social conditions. For example, priority is given to the recently married and low income young people. Moreover, new owners of land pieces are supplied with housing models and obligatory construction design set by the Ministry in coordination with urban development professors in Egyptian universities. Then, they will get an initial financial support of 15000 Egyptian pounds to be able to hire a specialized contractor to start the implementation.

New Vision

Over the last few years, the government has provided a number of low cost housing units, where an average of about 35,000 units were built every year. In order to maximize the goals of housing programs, the public sector and the private sector exerted joint efforts to improve the areas that will be chosen in the future.

In addition, several mechanisms that consider the participation of the private sector will be taken into account such as: joint-ventures and

Figure 97: Chosen Areas for Projects of Establishing Affordable Housing Units



No.	City	Area of Low Income Areas (in feddan)	Low Income Units (Unit)	Target Year
1	Badr	410	22800	2017
2	Obour	190	21120	2017
3	15 th of May	170	9700	2017
Total		770	53620	

providing subsidies on land prices, tax incentives and support for establishing luxury housing projects, on the condition that low income housing units will be established in parallel.

For instance, the model of “Free Housing” was carried out through the Ministry of Housing, Utilities and Urban Development via a partnership between the public and private sectors, where the New Urban Communities Authority (NUBA) will offer pieces of land at subsidized prices for real estate investors to implement urban development projects that include widely mixed uses. Investors must abide by allocating a part of the development process for building low and middle income housing units (with areas ranging between 70 and 100 square meters/housing unit); then, they will give these units to the NUCA to offer them to eligible people. In addition, they will also receive a soft loan to be repaid within 40 years.

Strategic Directions to Face Housing Problem

Current challenges of the housing sector are expected to be aggravated because of the expected population increase which is estimated to be doubled in the coming years. This will definitely raise the demand on affordable housing units in the GC. In case of reducing the number of individuals per house from 3.8 to 3 individuals during the period from 2012 to 2032, seven million families will be in need of housing units of different categories. Most of these units are to be established in new cities around Cairo on the already allocated land or the areas planned for this purpose without adding any additional areas.

Therefore, the main goal of the GC housing sector is to contain such tremendous population growth through providing suitable and affordable housing for all income levels.

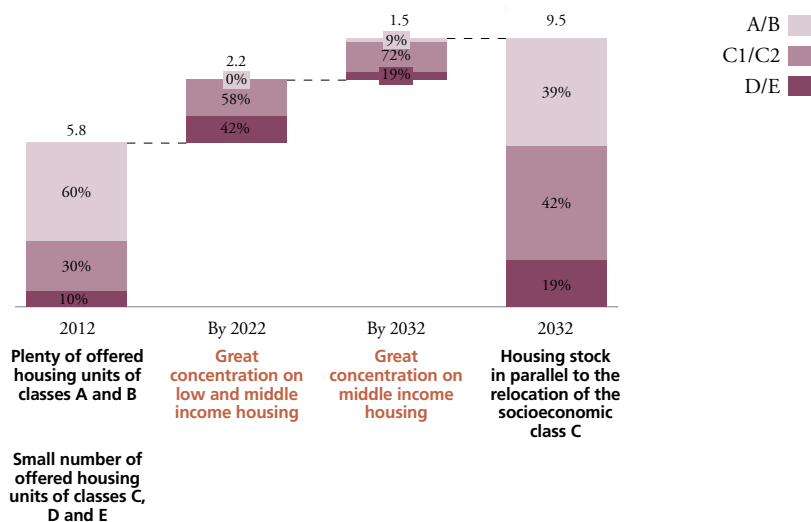
In case economic recovery was achieved, 3.7 million additional housing units should be built, 1.2 million of which for low income individuals and 2.3 million for middle income segments, by 2032 as shown in Table 7. As a result of the current shortage in residential units allocated for low and middle income families, the plan will focus on meeting the needs of these two segments as shown in Figures 98 through 100.

Figure 98: Housing units estimates by income bracket from 2012 through 2032 (in millions)



Source: GOPP

Figure 99: Estimates of additional housing units required to be built by income bracket from 2012 through 2032 (in millions)



Source: GOPP

Table 8: Expected increase in the number of housing units by income brackets 2012 – 2032 (in millions)

Social Classes	Number of housing units in 2012	Expected increase of number of housing units 2012 – 2022	Expected increase of number of housing units 2022 – 2032	Total increase expected of number of housing units 2012 – 2032	Total number of housing units in 2032
A/B	3.5	—	0.2	0.2	3.7
C1/C2	1.7	1.3	1.0	2.3	4.0
D/E	0.6	0.9	0.3	1.2	1.8
Total number of housing units	5.8	2.2	1.5	3.7	9.5

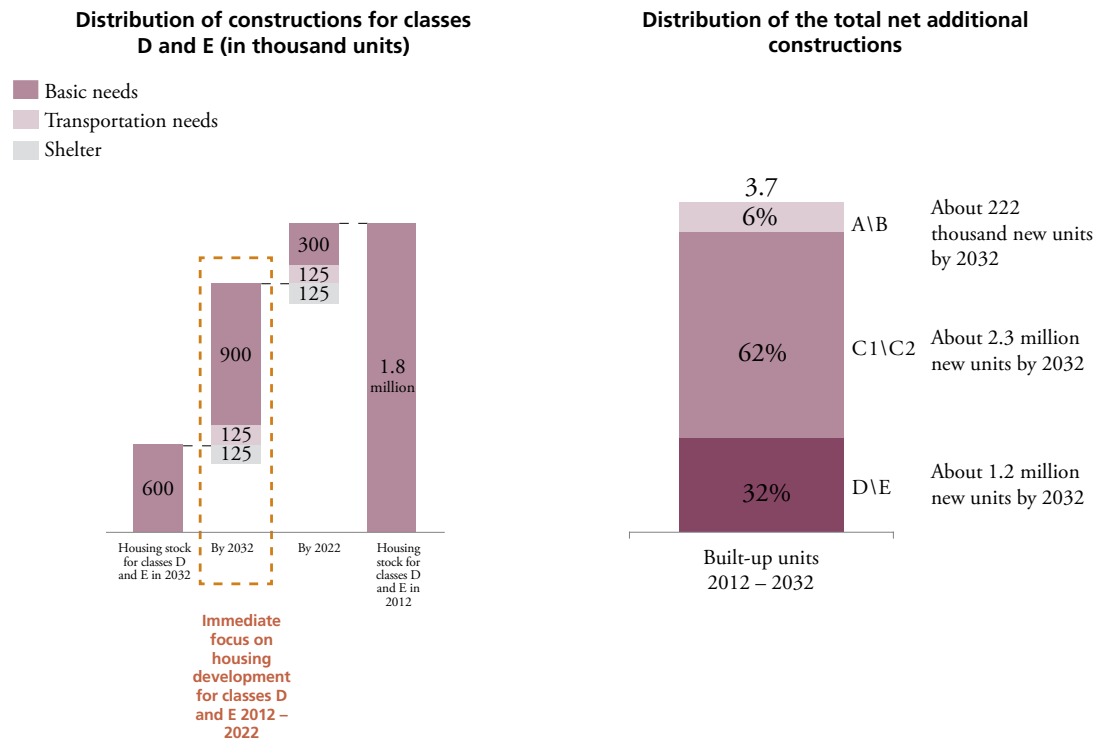
Source: GOPP

By studying the offered housing stock and its categories according to Figure 100, the needed increase of housing units for low and middle income families reaches 94% of the total required number in 2032. Therefore, it is necessary to build 3.7 million additional housing units in the coming twenty years.

Achieving the required social diversity in different GC urban centers will greatly contribute to reducing the growth of unplanned areas.

Moreover, the strategy of the housing sector must support the procedures of dealing with unsafe areas through providing alternative housing units in the same place, in proximity to the original area and the residents' work place or in new cities. Another important element is the success of launching several initiatives that call for enhancing unplanned areas and improving the standard of living.

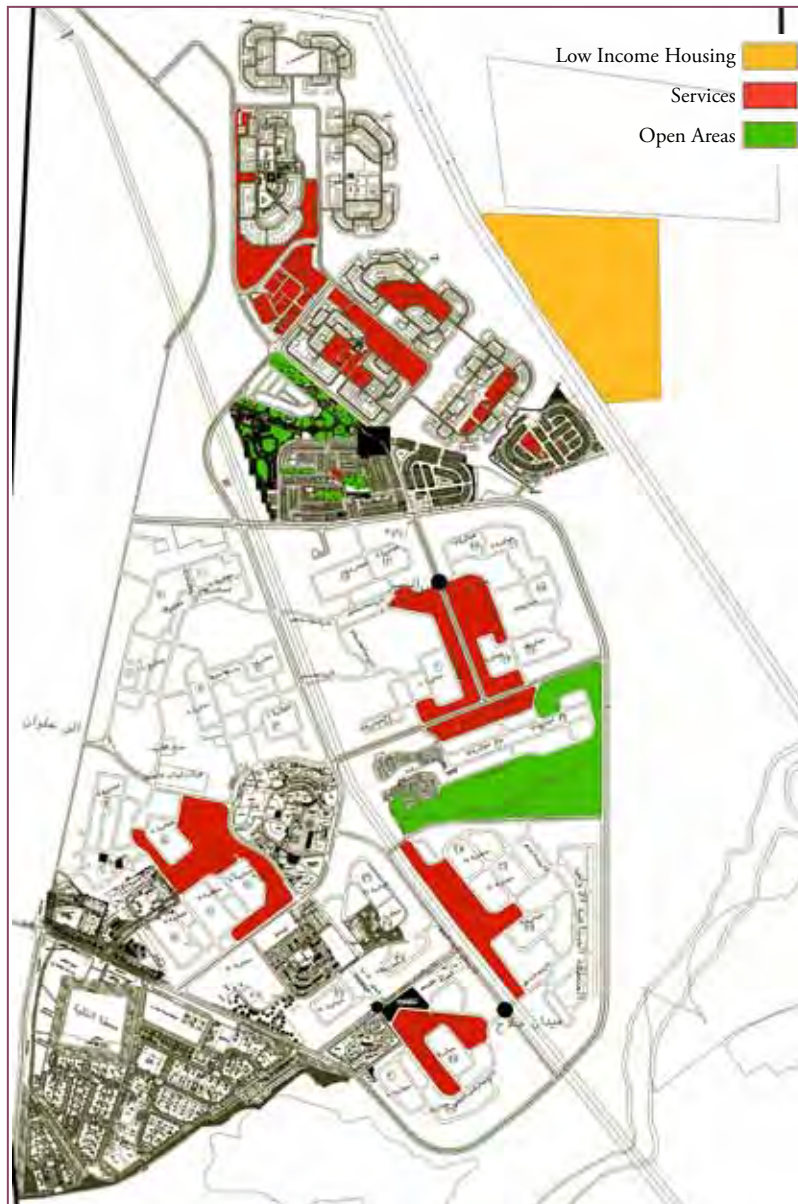
Figure 100: Estimates of growing construction of housing units by income bracket between 2012 and 2032



Build Your Home Project

“ In two decades, 3.7 million housing units are required to be built in new cities, 94% of which must be allocated for low and middle income families. ”

Figure 101: Areas Allocated for Low Income Families in Obour



Area of low income housing (in feddan)	190
Number of low income housing units (unit)	21120
Target year	2017

Figure 102: Areas Allocated for Low Income Housing in the 15th of May



Area of low income housing (in feddan)	170
Number of low income housing units (unit)	9700
Target year	2017

Figure 103: Areas Allocated for Low Income Housing in Badr



Areas of low income housing (in feddan)	410
Number of low income units (unit)	22800
Target year	2017

Priority Projects

Pilot Projects

Enabling the private sector to build housing units for low and middle income families

Low and middle income housing units are proposed to be built and offered for GC residents to meet the needs and requirements imposed by the expected population increase. They will also help address the discrepancy between the housing market supply and demand which led to the spread of unplanned and unsafe areas in the last years.

Therefore, the government must enable the private sector to play a major role in developing areas allocated for low and middle income housing through providing them with the needed pieces of land, especially in new urban communities. Moreover, these projects must obtain special support and be subject to special legislations to ensure achieving their goals and to prevent any potential change in the use of these housing units or the regulating standard conditions.

Setting and applying suitable building regulations and legislations in new urban development areas

In some areas to be allocated for the establishment of GC new development projects, more flexible conditions and regulations will be applied with the objective of achieving a relatively high population density. Furthermore, building conditions and legislations should encourage mixed land use and social diversity to build more vital urban communities, and should also encourage the diversity of housing units in terms of the unit area to support the affordability of all society segments and face the effect of expected land value increase which would reflect on the prices of housing units.

Family Housing

The Ministry of Housing, Utilities and Urban Communities adopted this plan in the framework of its projects in new urban communities, where land pieces of 150–300 m² were allocated and offered to a group of families to establish their residential buildings for their families.

Pieces of land of 600–1000 m² were provided in the GC new urban communities such as Sheikh Zayed, the 6th of October and New Cairo, for prices starting from 450–500 Egyptian pounds/m².

“ The government must enable the private sector to play a major role in developing areas allocated for low and middle income housing. ”



Current constructions in the GC

Transportation

The GC transportation network suffers from severe overcrowding and congestion.

Overcrowding and traffic jams became a common phenomenon. Moreover, the public transportation network does not have the capacity and coverage needed to meet the growing demand on the service. In addition, it is still difficult to reach new urban communities.

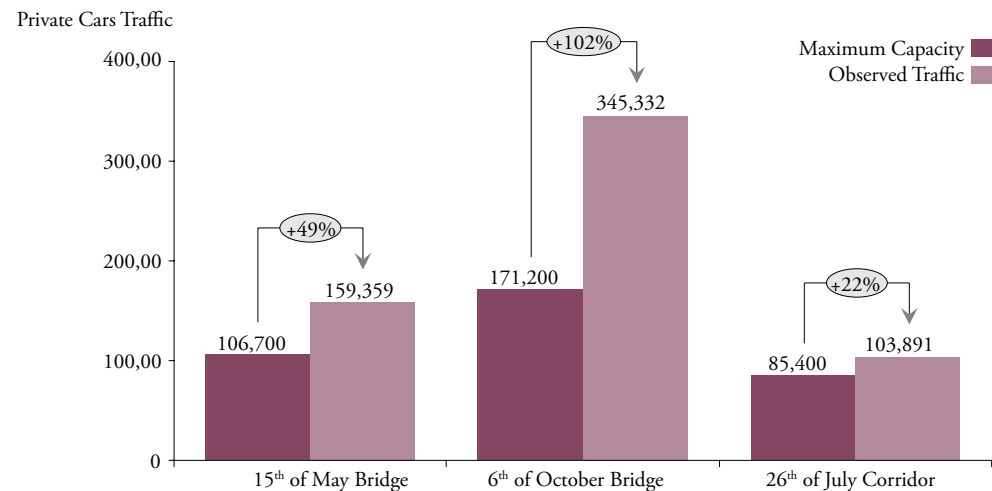
Strategic directions include increasing the means of public transportation, especially those from and to new urban communities, in addition to providing motives to encourage the use of public transportation rather than private cars. Moreover, projects will be implemented to improve road network.

Present Situation

The severe centralization places considerable pressure on the GC transportation network. Millions of individuals and goods move through the main axis of the GC road network every day; thus, roads and bridges carry flows exceeding their maximum capacity. Moreover, overcrowding became a common phenomenon. For example, the 6th of October Bridge carries twice its original design capacity, while the 15th of May Bridge carries 1.5 times of its maximum capacity. Furthermore, the regional road network that links the main urban mass with new urban communities suffers from overcrowding, especially the road linking it with the 6th of October and Sheikh Zayed Cities in the West. In addition, the 26th of July Corridor currently carries 1.2 times of its maximum capacity as shown in Figure 104.

Figure 104: Traffic Jam on Main Road Corridors

Existing traffic compared to the capacity of GC main traffic corridors in 2032



Source: JICA

Figure 105: GC Existing Subway Lines



Source: GOPP

Similarly, means of transportation suffer from overcrowding. The first and second subway lines carry more than one million passengers every day (i.e. 31250 passengers per kilometer); thus, the number of passengers they carry exceed that carried by Paris Subway, Europe's second busiest subway network, by 10,000 passengers. Moreover, Cairo subway lines do not link all GC areas, including new urban communities which need a high effective public transportation network.

It was found out that transportation and traffic problems result from two main factors:

Factor 1: The increasing demand on the service, where all residents of the main urban mass use all types of transportation inside the GC; during 1996 – 2006, the number of private car owners jumped from 46 to 76 cars/1000 residents. As from 2009, migration to new urban communities led to elevating the number of passengers, where about 238000 residents travel every day to the 6th of October and Sheikh Zayed Cities.

Factor 2: Shortage of available transportation services, especially the public ones. Remarkable efforts were exerted to improve the road network. Nevertheless, positive development of public transportation is the key for handling traffic problems. The GC suffers from shortage in public transportation means, as it only has 4 kilometers of subway lines for each one million residents, compared to 23 kilometers in Paris and 56 km in London. Moreover, the GC transportation network possesses 4,3 public busses for each 10000 residents, compared to 10,6 busses in Greater London. In addition, such public transportation shortage becomes clearer for the transportation

Transportation Sector – Analysis of Main Results

Strengths/Constituents

- Available subway lines to link most Egyptian cities;
- Availability of a developed international airport; and
- Availability of alternative private transportation (minibus).

Opportunities

- Fuel cost is relatively cheap; and
- Availability of plan for constructing subway and tram lines to connect high density areas.

means used to commute to and travel within the new urban communities.

The insufficiency of public transportation services led residents to rely on private transportation means. Thus, the percentage of users of public transport buses declined from 31% to 21% in 1996– 2001 respectively, while private minibuses users rose from 15% to 25% during the same period. This seriously threatens GC development projects, as it will cause more congestion in the main urban mass, hinder the development of new urban communities and cause more environmental degradation because of the growing use of fuel and the resulting pollution.

Strategic direction to address transportation sector problems

An ambitious vision was proposed to tackle the GC transportation sector crises, where the GC will include a comprehensive, safe and developed

Weaknesses/Problems

- Poor operational efficiency of transportation;
- Severe congestion during rush hours (underground and on roads); and
- Poor service level and worn-out means of transportation.

Threats

- Growing demand on the means of transportation;
- Poor public investments of means of transportation; and
- Pollution problem.

road network for vehicles, with the objective of providing an integrated public transportation system for all social segments. This will play an important role in supporting all other development sectors and limiting pollution.

In light of the challenges of the current situation of transportation in the GC, three main goals were set to achieve this vision in reality:

- Solving GC traffic jam problems as well as providing safe and comfortable means of transportation for individuals and goods all over the GC;
- Ensuring the availability of transportation all over the GC, especially in new urban communities; and
- Reducing negative environmental effects caused by transportation such as curbing air pollution resulting from car exhaust; in addition to reducing the use of combustion-based fuel.

As mentioned before, urban development mechanisms in the GC will include establishing new urban centers all over the GC to reduce the current pressure on the Downtown area and to create a balanced urban structure. Such perspective will have profound implications on the strategic directions of the transportation sector. Moreover, the completion of the Regional Ring Road project is a main axis for achieving this strategy.

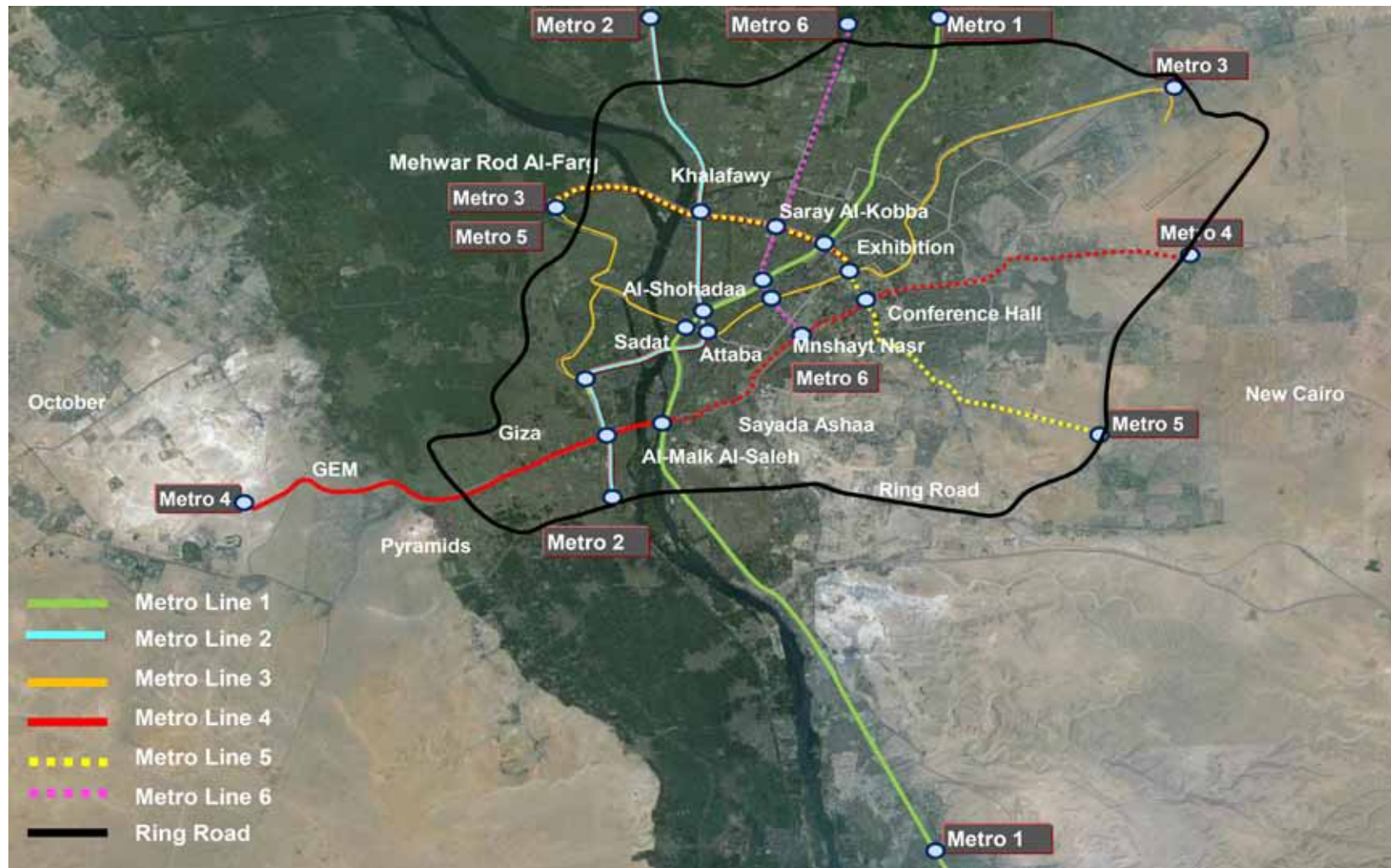
Switching to Public Transport

This shift is a radical solution for facing the challenges witnessed by the transportation sector. Moreover, it will greatly contribute to curbing traffic jam and environmental effects. This change can take place through two secondary directions:

Direction 1: Expansion of transportation infrastructure, since the limited transportation infrastructure reflected in high density and poor coverage is one of the main reasons that lead the GC

residents to rely more on private transportation. Therefore, the project will implement huge investments in public transport infrastructure to meet the increasing demand and make public transportation more attractive for passengers. Priority will also be given to railway transportation (such as the underground and tram); in addition to paying special attention to establishing an integrated network for public transport busses that covers all GC areas.

Figure 106: Existing, Ongoing and Proposed Subway Lines



Source: GOPP

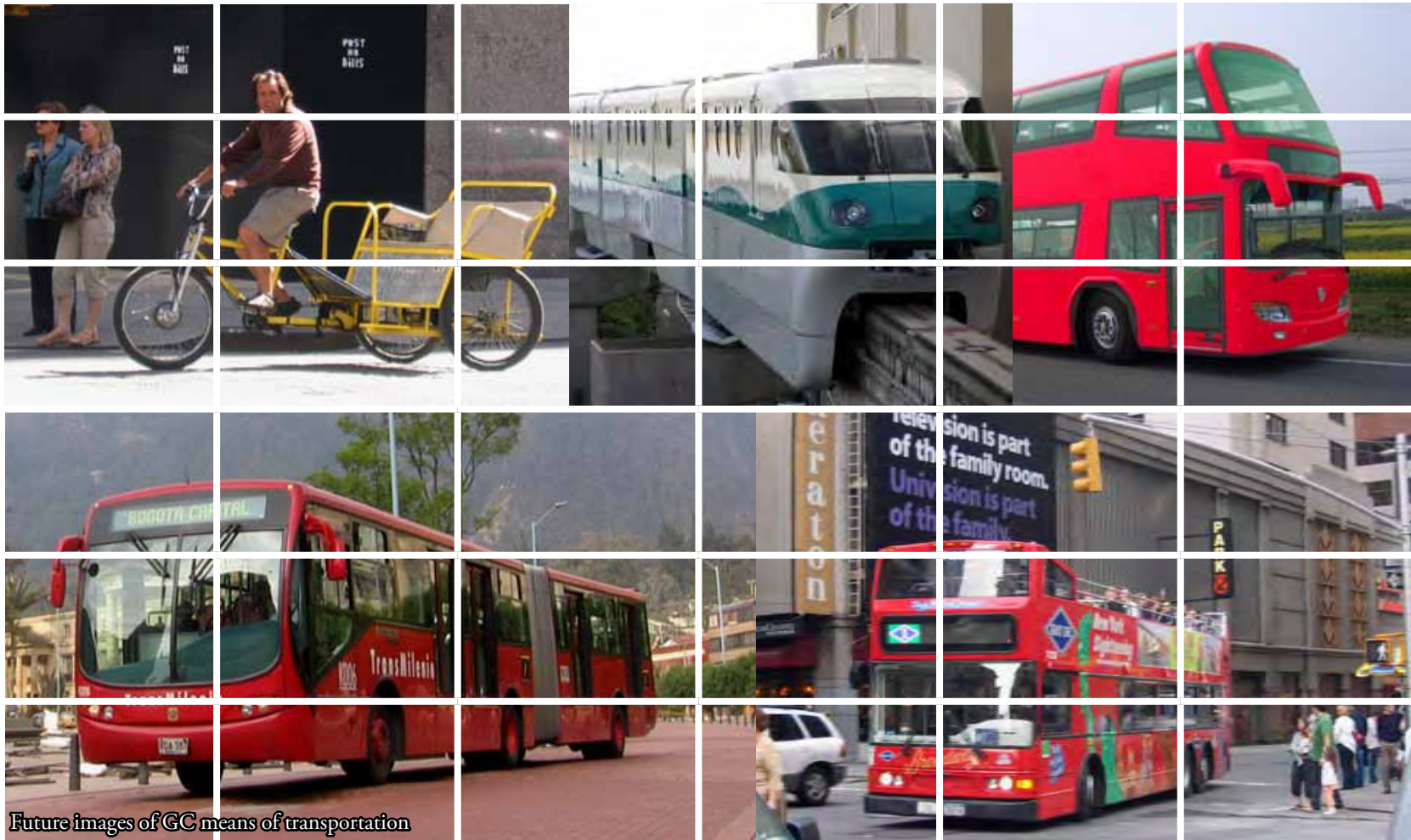
“The shift to use public transportation greatly contributes to curbing traffic jam and congestion.”

Direction 2: Minimizing the use of private transportation; several methods should be adopted to encourage residents to limit their use of private transportation, as follows:

- Converting some chosen roads to pedestrians' paths only (especially in the Downtown area);
- Banning private vehicles from some Downtown areas in specific days of the week; and
- Imposing high parking fees in heavy traffic areas.

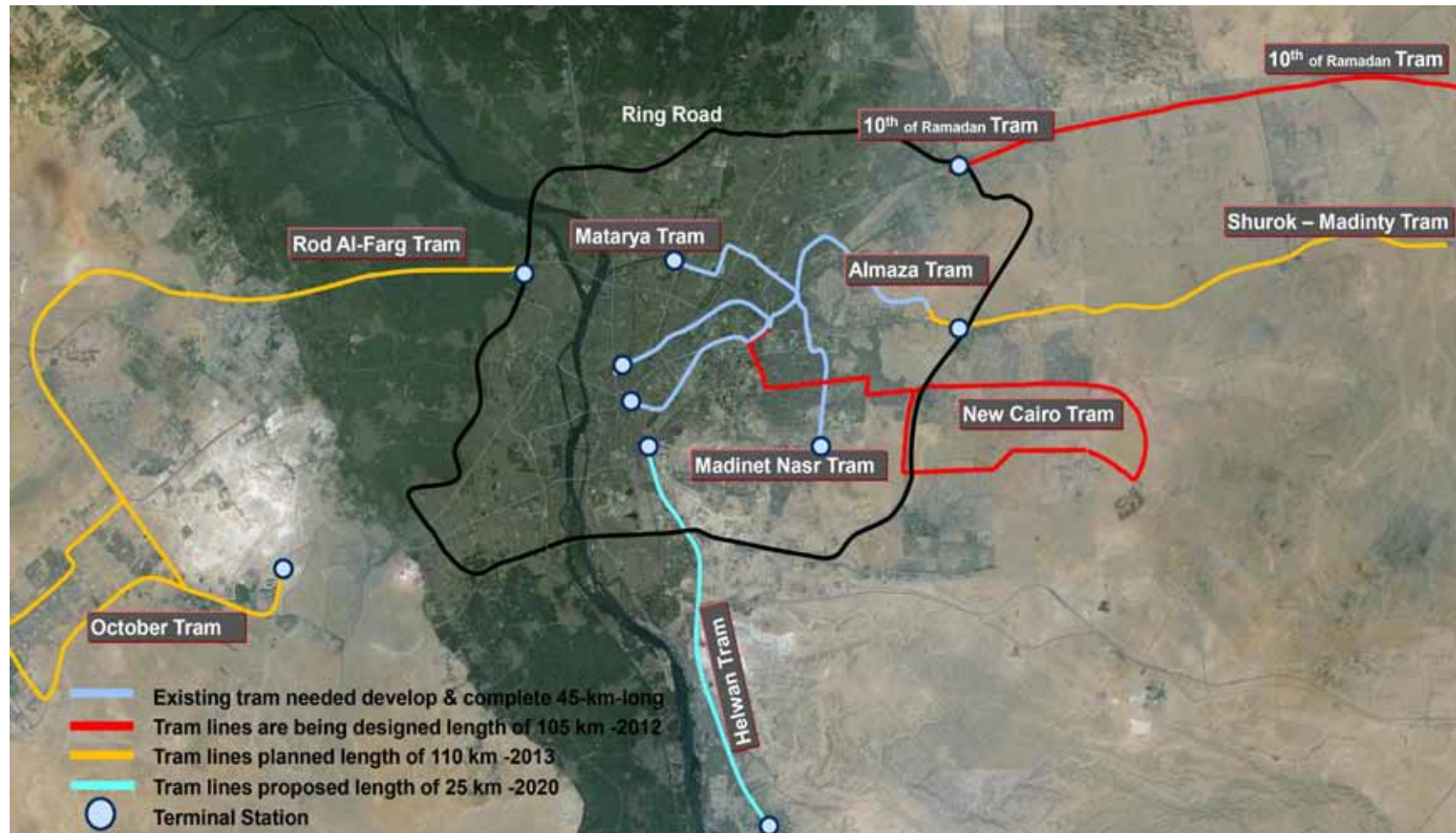
Main Improvements of GC Road Network

The availability of a road network of suitable technical efficiency is a main requirement for supporting the GC development process. Moreover, the current GC road network should be enormously enhanced, to raise its safety factors; in addition to the expansion of establishing highways and ring roads that meet in the center of the main urban mass and new urban communities.



Future images of GC means of transportation

Figure 107: Current and Proposed Tram Lines



Source: GOPP

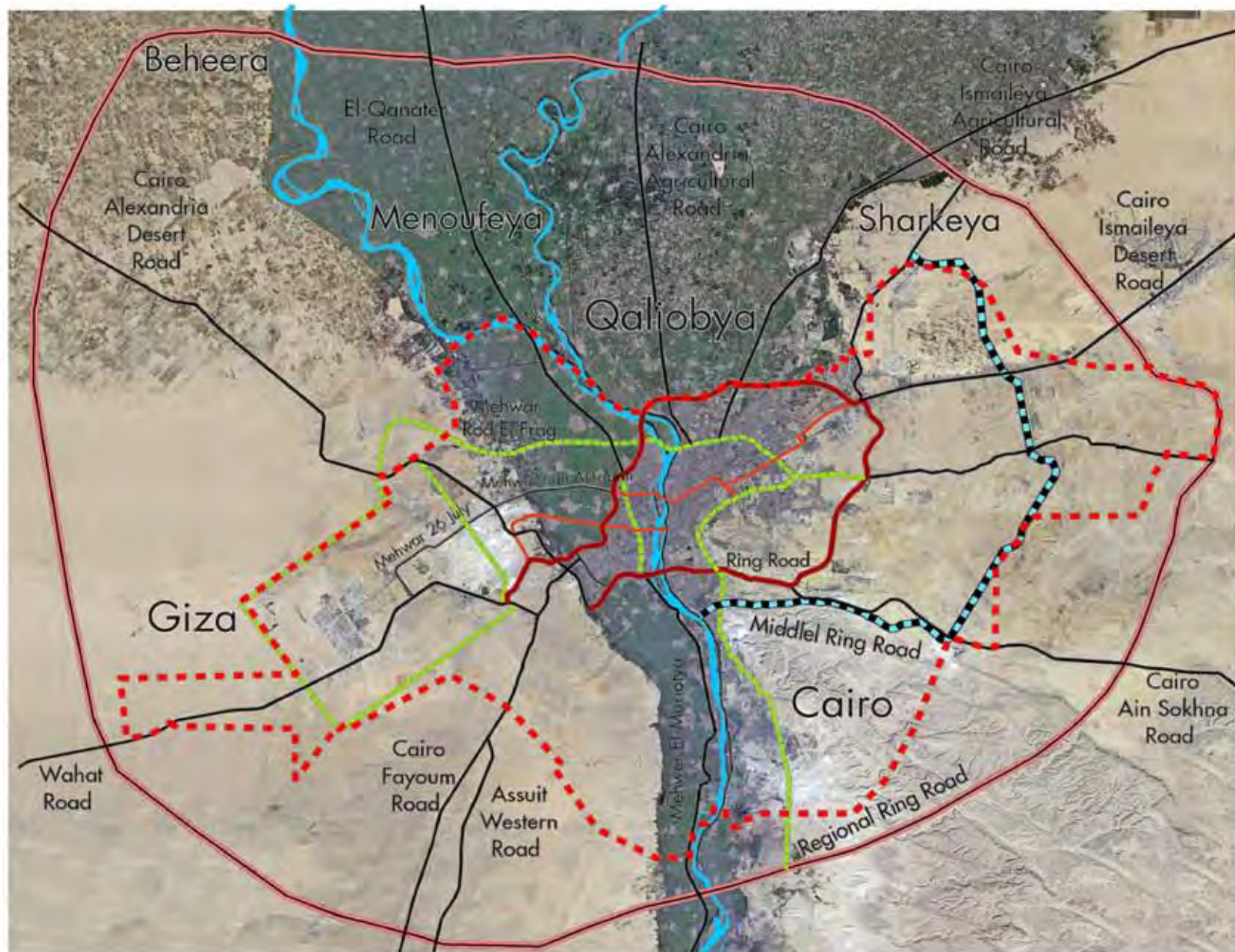
The improvement of road network is important to raise its ability to contain the developments of means of public transportation. This improvement includes allocating paths and lanes for public transportation on these roads.

Developing roads for transport of goods and regulating logistics

Means of transport of goods is one of the problems that face the GC transportation sector development. The vision here is to encourage transport of goods by rail, in addition to directing the traffic of goods and commodities shipping vehicles to the GC

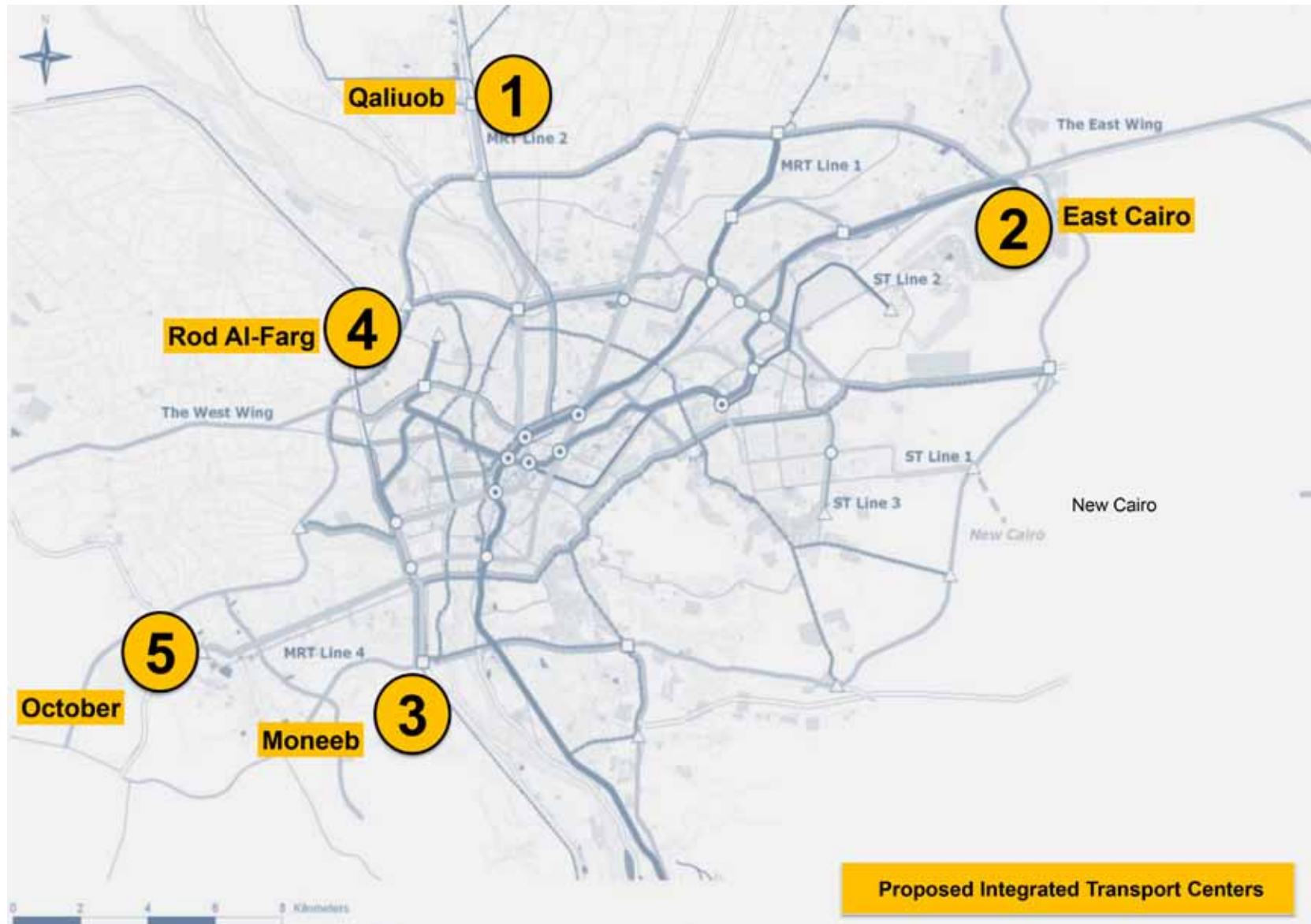
surrounding roads (Regional Ring Road) which will be directly linked to regional corridors, with the objective of avoiding penetrating the GC Downtown area. To support this goal, the land use initiative should be adopted to establish dry ports and logistic centers for storage and wholesale trade on the GC borders.

Figure 108: Current and Proposed 920-km-Long Road Network



- Existing urban highway roads 36 km
- Proposed urban highway roads 170 km
- Existing regional roads 180 km
- Ring road - development 100 km
- Middle ring road - design 84 km
- Regional ring road - execution 330 km

Figure 109: Transportation Centers around GC Ring Road



Source: GOPP

Environment

The GC air pollution rates are still worrisome, as they are much higher than the allowed international standards, which makes Cairo one of the world's most polluted urban areas.

The infrastructure of solid waste management system is still incomplete; in addition, the natural resources consumption rates, especially water supplies, are high. Estimates of the per capita share of green spaces are much lower than the international level, added to the limited environmental awareness.

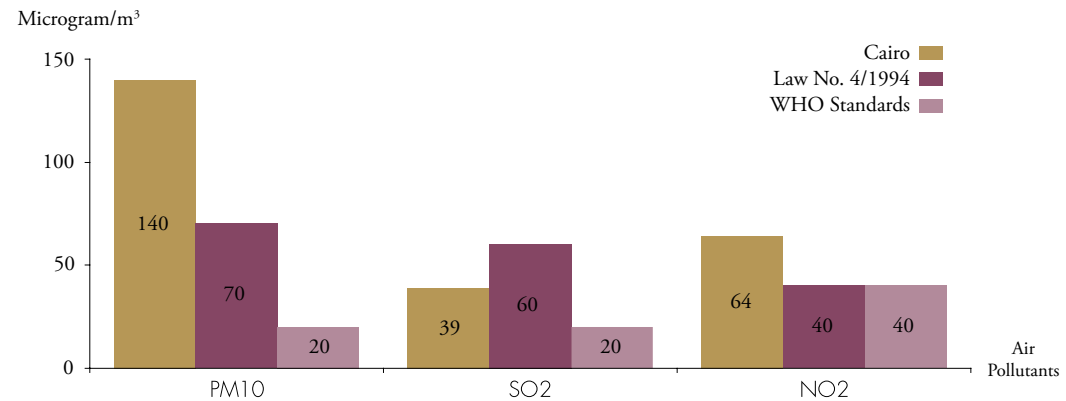
Strategic directions aim at exerting great efforts to improve the quality of air, especially through adopting an ambitious program to relocate polluting factories, rationalize water consumption and expand green areas and energy rationalization programs.

Pollution

Present Situation

The level of the GC air quality is still poor. The industrial activity that increases fuel consumption rates and the growing number of vehicles (by more than 0.2 million vehicle every year) are the most important pollution factors. Moreover, the rising number of vehicles on roads leads to the increase of the overall rate of nitrogen oxide concentration. In 2008, nitrogen oxide annual rate reached 64 microgram/m³ compared to 46 microgram/m³ in 2007 as shown in Figure 110, exceeding the limits set by the WHO which are estimated by 40 microgram/m³. Thus, the concentration of

Figure 110: Ratios of main air pollutants in GC compared to WHO standards and limits allowed by Environmental Law No. 4/1994 (2008)



Source: Egypt State of Environment Report 2008

particulate matter that causes GC air pollution is double the limits allowed by environmental laws. Moreover, the GC terrain, industrial pollution, vehicle exhaust and open burning of solid waste contribute to exacerbating the concentration of lead and surface ozone in the GC air.

Great efforts were lately exerted to address this issue. Therefore, a comprehensive national network for monitoring the quality of air was established in the framework of the “Environmental Information Monitoring Program (EIMP)” of the Egyptian Environmental Affairs Agency (EEAA). The monitoring system measures the concentration of several common elements that cause air pollution such as: sulfur oxide, nitrogen dioxide, carbon monoxide, ozone and particulate matter. Furthermore, all these initiatives were carried out under Environmental Law No. 4/1994 and its amendments issued under Law No. 9/2009, with the objective of including the environmental

dimension in all fields to achieve sustainable development goals.

Noise is also another form of pollution, in addition to its dangers that negatively affect human health. The presence of industrial buildings inside residential areas without prior proper planning as well as high traffic density contribute to increasing the level of noise pollution in the GC. Thus, the EEAA has put the “National Plan for Noise Control and Elimination of Noise Sources” in cooperation with competent ministries. In 2007, the first phase of the “National Network for Noise Monitoring” was implemented and is completely finished by now.

In a study conducted by the World Bank in 2004, Cairo ranked first as the world's highest pollution in terms of particulate matter whose ratios surpass similar cities in the world such as Peking (rank 13), Istanbul (rank 38) and Mexico City (rank 39) as shown in Figure 111.

Strategic Directions to address air pollution

Relocating polluting industrial buildings, updating their operational processes and improving their use of fuel (Industrial Pollution Control Program)

Relocating the main polluting industries is one of the most important pilot projects for handling the GC environmental problems; in addition to encouraging the modernization of these buildings and shifting to the use of environment-friendly energy resources in relevant establishments such as cement plants, iron and steel industries, and small and medium enterprises. These industrial premises are proposed to be moved away from urban areas to curb their harmful effects on general health; in addition to rehabilitating their original locations due to their high financial value.

Reducing Ratios of Vehicle Exhaust Emissions

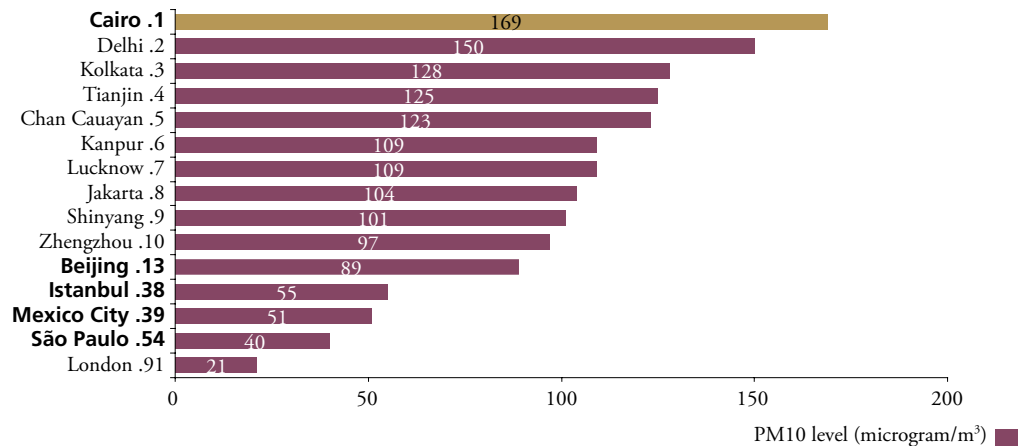
Old vehicles in the GC must be obligated to adjust their status according to environmental guidelines to control their exhaust emissions. Moreover, 5000 governmental vehicles will be shifted to use natural gas rather than fuel.

Green Spaces Present Situation

Green spaces should be provided for social, urban and environmental purposes. The acute shortage of public green and open spaces in the GC negatively affects the main urban area and the quality of life.

In spite of the projects recently launched in this field (such as Al-Azhar Park), the per capita share

Figure 111: Global cities most affected by particulate matter



Source: World Bank – “World Development Indicators” Report

of green areas is as low as 3.1 m² in gardens/ parks, which is much lower than Paris (11.8 m² per capita), London (26.9 m² per capita) and Tokyo (5.5 m² per capita).

The main urban mass is completely filled with buildings; however, other areas of railway level crossings and old governmental buildings planned to be relocated can be used to build new green areas. It is also proposed to reuse these spaces and convert them into public gardens.

Strategic Direction for Planning Green Spaces

The strategic vision aims at raising the per capita share of green spaces, maximizing the environmental effect and minimizing the infrastructure needed for related construction and maintenance processes.

It would be better for the GC to establish vast green areas rather than just focusing on building dispersed

green spaces all over the GC. Moreover, Al-Azhar Park and the central park to be constructed in Al-Fustat area provide public places for entertainment. In addition to keeping residential areas in Nile Islands and creating new recreational facilities, vast areas will be improved and allocated as green areas inside the main urban mass in order to form a green breath in the heart of the city.

Cairo will completely benefit from maximizing the opportunities of accessing the banks of Nile River. It is better to launch projects such as developing and amending legislations of improving Nile Corniche and establishing a pedestrians' path that is directly linked to the banks of the River.

One of the main plans set by new urban communities is to build a tree forests area to separate urban centers or to plant green areas. However, it is still better to have wide open green spaces that are proximate to residents.

Establishing a Green Belt around the GC

A 100-km-long green belt of dense trees will be established around the GC Ring Road through planting half a million trees and benefiting from treated sewage water in irrigation; this project will also provide job opportunities and achieve an economic and social return.

Water

Present Situation

Among the world's big cities, whether the developed or developing countries, the GC has one of the highest rates of per capita consumption of water in terms of residential use. In 2007, the per capita consumption of water reached 208 liter/day compared to 138 liter in Beijing and 120 liter in Paris. On the level of the GC, such high consumption partially results from the usage of new urban communities that reached about 300 liter per capita/day, followed by the consumption rate of the main urban mass (approximately 220 liter per capita/day). Moreover, the daily rate of per capita consumption of water in villages and small towns hit almost 130 liter/day.

Strategic direction to handle water issue

Egypt, especially the GC, faces a problem in meeting the growing need for water amid the accelerated population growth as well as the continuous and surging urban development process. Thus, optimal management of water is a fundamental condition for achieving the GC sustainable development.

Due to the city's needs of water and relative scarcity of freshwater in the country, the per capita consumption of water should be reduced.



Water is likely to be the most important natural resource to support development in the GC. The goal of the strategic direction is to:

- Meet the future needs of water through improving the capabilities of water and sewage networks and efficiently managing these services;
- Encourage and implement procedures for using treated sewage water for agricultural purposes; and
- Increase campaigns for raising public awareness on water scarcity issues and encourage rationalization of freshwater consumption.

Water Sector Projects

- **Increasing capacity of drinking water network**
 - Increasing the capacity of delivering drinking water services in the GC from 7,233,000 m³/day (current capacity) to reach 15,163,000 m³/day in 2027. This will certainly impose additional burden

on water purification plants that will be used by new urban communities. Therefore, their capacity will be increased by 5 times in the 6th of October Area after implementing the long-term expansion plan.

- **Increasing the capacity of sewage treatment plants**

- About 85% of the GC main urban mass and 11% of its villages and small cities have been linked to sewage networks. Moreover, untreated wastewater in other areas is directly discharged through agricultural drains or desert land, leading to pollution and significant deterioration of water quality. Furthermore, most of the unplanned areas do not have sewage treatment services.

- Environmental issues related to wastewater treatment in the GC are worrisome because food production, including agriculture and fisheries, mainly relies on the reuse of wastewater.

- There are 13 wastewater treatment plants to serve the GC and its suburbs. In 2007, the size of demand on wastewater treatment services

reached 3,482,200 m³/day, a rate which is very close to capacity of networks which amounts to 4,084,000 m³/day.

- According to expansion plans, the capacity of wastewater treatment plants will be increased from 4,290,000 m³/day (current rate) to climb to 8,456,000 m³/day in 2027.
- Developing the wastewater treatment plant of the 6th of October and increasing its operational capacity by 150,000 m³/day.
- Improving the wastewater treatment plant of Helwan and raising its current capacity of 700,000 m³/day to hit 1,050,000 m³/day.
- Expanding the wastewater treatment plant of New Cairo that should treat about 1.25 million m³/day at the completion of its construction.

The Ministry of Housing and Urban Communities wants take the responsibility of establishing, operating and maintaining the second phase of Abu Rawash wastewater treatment plant in Giza and improving its level from primary to secondary in order to be able to treat 1.2 million m³/day through partnership between the public sector and the private sector.

Solid Waste Present Situation

The GC residents' consumption generates about 58% of Egypt's solid waste, with a daily rate of 26 thousand tons. Thus, the current problems in waste management field are represented in collection and safe disposal of waste.

Table 9: Solid waste generated by GC governorates

Governorates and Cities	Daily waste generated in tons
Cairo	18.436
Giza	6.309
Qalyubia	1.425
GC	26.170

Source: GC Solid Waste Management Master Plan (2010), GOPP

Strategic direction to address solid waste problem

The main objective is to increase the capabilities and the use of technology in the collection and safe disposal of waste. In the same time, it is important to curb waste generation through recycling solutions. In addition, special attention will be paid to improving toxic waste management.

Pilot Projects and Measures

- Devise Integrated Systems for Solid Waste Management
- Building five new landfills of wastes in the desert; vast areas of about 6,745 feddans will be allocated to be used for at least 50 years;
- Choosing and preparing two zones outside the residential areas to be allocated for waste sorting, and building recycling establishments;
- Waste collection using more modern and suitable vehicles;
- Introducing the system of waste sorting at source in the GC to facilitate the recycling process; and
- Improving and developing waste recycling procedures and using waste in manufacturing organic fertilizers.

Energy Present Situation

The GC is supplied with basic electrical services through Cairo Electricity Production Company, a subsidiary of the Egyptian Electric Holding Company. Cairo Electricity Production Company has seven power stations, contributing with 20% of the total electric power generated in Egypt.

Egypt Electricity Distribution Company buys the electric power produced by power stations according to needs, then sells it to high-voltage electricity users and regional electricity distribution companies for medium-voltage electricity users (22 and 11 kilovolt).

North Cairo Company and South Cairo Company distribute electricity for medium voltage users (22 and 11 kilovolt) and low voltage users (400 – 230 volt). Most of the electricity is directly bought from the distribution company and the other part is bought from the power stations of the Cairo Electricity Production Company for medium voltage. Current GC electrical peak load is estimated at 5,600 megawatt.

Strategic direction to solve energy-saving problems

The GC faces an increasing demand on electrical services because of the high number of residents and their improved standard of living. Accordingly, the strategic goal here is to maximize the use of available energy resources and curb environmental pollution. Moreover, the electrical service will be provided at minimum prices and best quality, with special focus on the efficiency and rational use of energy in terms of both supply and demand.

Special support will be given towards relying on renewable energy resources to reach 20% of the total GC energy consumption in the near future.

Energy Sector Projects

- Increasing electricity production through environment-friendly methods

Efforts will be made to raise the share of renewable energy to be in line with the national plan for electricity in the Arab Republic of Egypt, so that the consumption of renewable energy increases to 20% in 40 years to include wind energy, photovoltaic (PV), solar energy and hydraulic energy. These types of energy are undoubtedly more expensive than fuel-combustion-based energy; therefore, their use will be encouraged through providing incentives and reducing legal obstacles that face producing companies. In addition, garbage and sewage can be used to generate renewable energy. Besides, organic waste or biomass can be used as a source of energy. Attention should also be paid to the expansion in establishing the infrastructure of natural gas, the cleanest combustion-based fuel.

Table 10: Power Plants of Cairo Electricity Production Company in 2008

Plant	Type	Used Capacity (Megawatt)
Shubra El Kheima	ST	1.260
West Cairo	ST	350
Cairo West Extension	ST	660
South Cairo 1	CC	570
South Cairo 2	CC	165
North Cairo	CC	1.500
Wadi Hof	G	100
Total		4.605

NB: ST: Powered by Steam, CC: Combined Cycle, G: Powered by Gas
Source: Egyptian Electric Holding Company, Annual Report 2007/2008

In order to raise the consumption of renewable energy to hit 20% in the GC, a natural gas powered and combined-cycle power plant will be established with a capacity of 2×750 megawatt in North Giza Area on an area of about 230,000 m².

Power plants use natural gas as fuel, with the possibility of operating them by solar energy (light fuel oil). Using natural gas as a basic fuel with low-nitrogen oxides burners ensures a great decrease in the ratio of carbon dioxide gas and particulate emissions.

Using solar energy in the GC is being encouraged to meet the heating and cooling purposes in household uses.

- Project of enhancing energy efficiency and limiting greenhouse gases

In line with the national goals of Egypt, the project aims at reducing the daily consumption rate of electricity in Egypt by 2022 and minimizing power loss of electricity networks, in addition to rationalizing electricity consumption by end consumers. Thus, the national goals can be achieved through several projects, including:

- Decreasing energy losses resulting from distribution and transmission;
- Improving energy-saving methods;
- Developing the capacity of rationalizing energy consumption in the building and construction sector; and
- Raising the public awareness of consumers to rationalize and reduce consumption.

- Cogeneration of Electricity

It is the parallel generation of heat and used power, usually electrical power, through one process using the same fuel. The introduction and operation of energy cogeneration plants will be encouraged through governmental incentives such as providing soft loans to companies that use this technology.

“Special support will be given to using renewable energy resources to reach 20% of the GC energy consumption in the near future.”



Use of wind power in generating electrical power

GC Administrative Apparatus (Governance System)

The GC administrative system should rely on strong institutions and the traditional representative authority of the parliament.

Steps of decision making are still complicated because of the multiplicity of institutions and control authorities as well as the duplication and conflict of their competences inside the GC administrative boundaries.

Expected strategic directions and those that are required to be approved by competent authorities include establishing a supreme council to control and follow up the achievements and progress done within the context of implementing the GC strategic plan after being prepared.

It is necessary to develop a specific definition of the capital.

Present Situation

The GC contains several administrative units, which leads to complicating the decision making process regarding projects that affect more than one GC governorate. Furthermore, the strong presence of ministries inside the GC usually results in conflicts of authorities and competences among ministries and GC governorates.

Strategic Directions

The formulation of the GC future vision relies on the common principles and clear directions of urban planning as well as land use strategies. Moreover, directions must be applied in a consistent and synchronous manner on all administrative levels of

Governance Sector – Analysis of Main Results

Strengths/Constituents

- The presence of solid political institutions;
- Parliamentary representation that has a long history; and
- Availability of experiences as well as administrative and political trained cadres.

Opportunities

- National reform project; and
- Availability of long-experienced legal institutions.

Weaknesses/Problems

- Absence of transparency and clarity in decision making;
- Lack of community participation capacity; and
- Lack of unique social characteristics for GC communities.

Threats

- Multiplicity of governmental bodies and authorities as well as the overlap between their legislative competences within the GC administrative boundaries; and
- Lack of a specific vision for the GC as one integrated system.

the GC organization structure, in order to make the vision come true for the benefit of the residents.

This necessitates a radical restructuring of the administrative system of governance all over the GC, in coordination with relevant authorities and after negotiating with all development partners.

Role of Strategic Plan in GC Urban Development

The future vision of the GC urban development was prepared in execution of Law No. 119 of 2008 as a step towards preparing the strategic plan that specifies the GC development strategy. Moreover, proposed regional projects and the stages of their implementation must be explained; and the roles

of all involved parties from the public sector and the private sector throughout the implementation period should be defined. Furthermore, the GC strategic plan will be formulated under the umbrella of Egypt's national strategic plan that is currently being prepared.

As per the provisions of Law No. 119 of 2008, future strategic plans must be generally compatible on the local level with the GC urban development strategy. In addition, plans that draw the goals, policies and urban development programs in each GC governorate should be devised, to be included in the framework of the GC urban development strategy.

Administrative system controlling the implementation of the vision

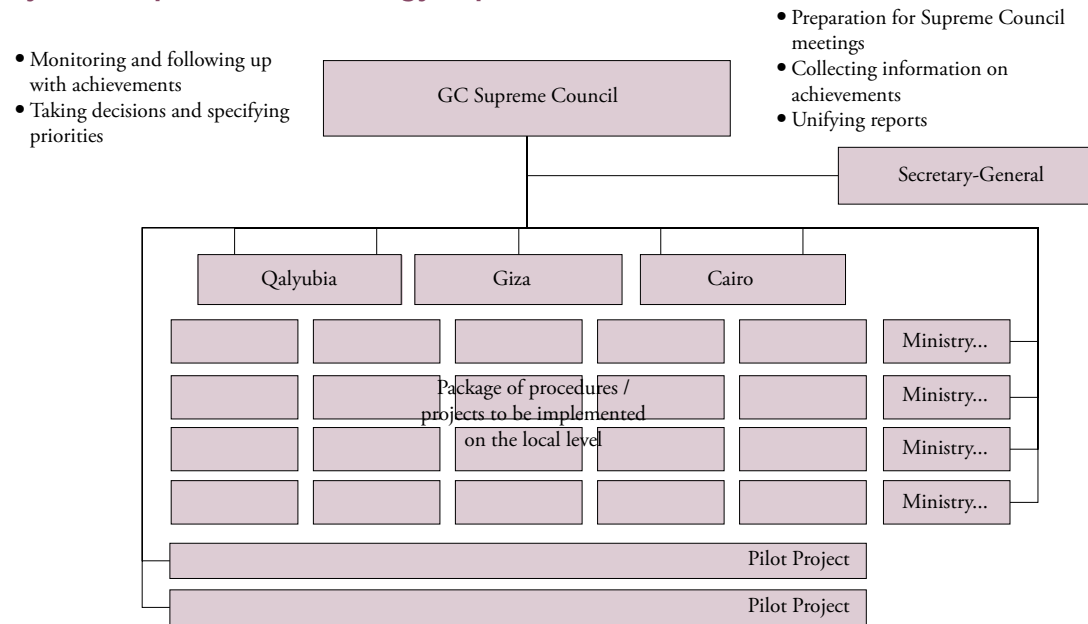
The proposed vision and the urban development strategy will define a road map for all public entities / authorities concerned with the management of the GC. Due to the significance of the GC in the Arab Republic of Egypt, the project implementation will be followed up and supervised at the highest level in the country.

The urban development vision suggests applying an administrative model for the GC that ensures smooth implementation as shown in Figure 112. More accurate administrative details and feasibility studies will be prepared by competent authorities. Moreover, the ruling administrative system proposed to achieve the vision must apply the following principles:

- **Establishing GC Supreme Council:**

The GC Supreme Council should be established to be parallel to the existing Supreme Council for Urban Planning and Development. Moreover, the proposed council will be responsible for the official approval of the urban development strategic plan after being prepared, then it will monitor the volume of general achievements and take all decisions related to the implementation of the plan. Furthermore, the proposed GC Supreme Council will be responsible for arbitration between competent parties in case of deficiencies, conflicts or disputes. All competent ministries and governors of the three governorates located within the GC boundaries must be members of the proposed supreme council. Furthermore, the highest authority in the country will head up the proposed supreme council, which will hold regular meetings.

Figure 112: Proposed structure of the administrative system responsible for strategy implementation



- Monitoring and following up with achievements
- Taking decisions and specifying priorities

- Preparation for Supreme Council meetings
- Collecting information on achievements
- Unifying reports

- **Establishing an independent authority to support the GC supreme council:**

To ensure the independence of the reports submitted to the GC Supreme Council about the progress achieved in carrying out the strategic plan, an independent authority must be established to be responsible for dealing with several institutions responsible for the implementation, preparing official reports about the progress achieved throughout the implementation stages, and observing the main problems and challenges facing the implementation. Due to the ongoing tasks assigned to the proposed council, including the preparation of the strategic plan and following up with its implementation, this authority must be established inside the GOPP.

“ It is necessary to radically restructure the ruling administrative system (governance) all over the GC, in coordination with relevant authorities after negotiating with development partners.”

- **Executive Subsidiarity:**

In most cases, the principle of subsidiarity must be applied in the implementation of projects, where each project will be adopted at a level close to the executive authority. Therefore, it is expected that most projects will be under the responsibility of the governorates located within the GC borders. The budgets of these projects will be approved through applying the procedures of processing regular budgets. In addition, latest data and information will be regularly submitted in periodic reports that follow up the progress achieved in strategy implementation. These reports will be submitted to the GC Supreme Council.

- **Choosing a limited number of “pilot projects” to be managed on the regional level:**

In the framework of the package of projects and procedures planned to be completed to make the vision successful, a limited number of pilot projects that covers several governorates will be chosen according to their nature. These projects will also be put under the direct responsibility of the GC Supreme Council. Moreover, competent authorities will be specified on the regional level to organize the implementation process and monitor the progress, while the governorates will continue to play their role as executive authorities. In addition, the budgets of the projects will be directly approved by the Supreme Council and under its direct responsibility after being ratified. Then, these projects will be subject to the above-mentioned monitoring mechanism.

- **Regular Update of the Vision:**

Taking into account any changes in the situations and considering the flexibility factor and to ensure consistency in the implementation of the vision on the long run, a regular update for the strategic plan will be provided to be officially ratified by the GC Supreme Council. Moreover, the party responsible for monitoring the implementation of the plan will

also take the responsibility of preparing procedures and actions needed to update the plan every five years.

The issue of developing a specific definition of the capital should also be addressed. Considering the special nature of Cairo city as the capital of the Arab Republic of Egypt, it is important to specify the right and suitable situation of the city, following the example of several global capitals. This is to help facilitating the formulation of the strategic vision subject of implementation. The capital city covers Cairo and Giza which are two separate and integrated governorates; however, this situation will clearly specify the decision making process and the scope of accountabilities related to the capital.

Implementation Prerequisites:

The on-time implementation of the strategic vision can be facilitated through setting some regulating or institutional requirements and measures as follows:

- **Potential Regulatory Amendments:**

Several legal issues are currently hindering land use procedures, which may disrupt the plan implementation. Due to the dangers threatening different interests, these issues must be accurately discussed and solved in an early stage of the project implementation.

- **The most important issue among these critical legal issues is the government’s ability to allocate privately-owned pieces of land for public benefit:**

Although land owners get compensated and such allocation procedure is stipulated and defined in Articles 1 and 2 of Law No. 10 of 1990, its application is still limited until now. Thus, new methods should be developed to ensure its quick application.

- **Ways of securing the government’s ability to keep and apply a part of the increase in land value:**

It is important to secure the government’s ability to keep a part of the increase in land value resulting from its development, as well as improving the environment and the level of public service coverage.

- **Potential Institutional Amendments:**

Ensuring smooth implementation of the vision will certainly require an effective cooperation among several stakeholders and concerned parties participating in the preparation and implementation of the regional plans. In the framework of this direction, several steps can be taken, including:

- **Establishing specialized entities all over the GC to be responsible for implementation:**

Entities and authorities were recently established on the regional level to bear specific responsibilities in their fields of specialization such as founding the Holding Company for Water and Wastewater (HCWW). Likewise, a number of similar additional entities should be established to carry out the duty of implementing pilot projects in their fields on the regional level.

- **Supporting the organization of institutional communications:**

Due to the overlapping of responsibilities and complexity of work tasks as well as the dependence of institutions on the roles of each other, precision and accurate consistency of work strategies as well as project implementation timetables must be considered as main requirements for ensuring the accuracy of project implementation. Therefore, customized coordination mechanisms and meetings should be organized on the operational level to ensure smooth flow of information.

Principles of Financing Strategic Plan

Some financial privileges of quantitative nature can be provided for projects; this includes the increase of the value of publicly-owned land offered for sale or rent for private sector investors. Other privileges will be indirectly evaluated. The strategic plan will launch a positive work cycle that will benefit the GC as a whole. Furthermore, the efforts exerted to achieve the vision are expected to create plenty of job opportunities. Moreover, these projects will shorten the travel time all over the GC. Consequently, this will increase productivity rates and attract more direct foreign investments. At the end of the day, this will help provide job opportunities for the GC residents.

The funding required to implement the strategic plan will be provided through an integrated method. Some projects with large social benefits are expected to have negative effects equal to the direct revenues resulting from other projects. Several sources will be used for financing the strategic plan, namely:

- Positive financing based on specifying the land value and raising the level of tax collection, which will increase the financial value achieved from the projects;
- Engaging the private sector whether by selling or renting commercial land, by creating a partnership between the public sector and the private sector, or forming partnerships to implement specific projects;
- Property taxes; and
- Funding allocations from the country's general budget.

In order to ensure on-time implementation of the projects, the funding of pilot projects will be put under the direct responsibility of the GC Supreme Council. Moreover, funding will be needed to be allocated from the country's general budget for launching several projects for redevelopment and reconstruction, as well as ensuring quick achievement of the critical mass stage. Later on, the value of capital investments will be recovered through selling and renting for the private sector or indirectly by collecting the increased amount in land value.



A panoramic view showing some of the most important hotels facing Nile River as an element of tourism industry in the GC





Chapter 5

Implementation of the Vision

Overview

To ensure the achievement of the vision, previous studies and workshops that involved opinion makers of the GC residents and relevant specialists as well as leaders ended up with a set of ideas and projects that will provide sectoral needs. These ambitious projects will undoubtedly contribute to the establishment of an environment-friendly urban area that achieves social justice and economic competitiveness.

The vision also proposes a set of priority projects in light of their effect on the local, regional and international levels as well as their degree of complication. These projects can be classified into two types:

- **Three sectoral programs that focus on the most important pillars of the vision and aim at establishing a basic foundation for participation and coordination among all development partners and competent authorities to reach a common goal; and**
- **Twenty two pilot projects for urban development provided with an accurate specification of the scope of each project, especially methods of implementation and responsibilities.**

This package of priority projects is primarily intended to deal with urgent issues that need immediate attention. Moreover, another set of projects will be specified to complete the comprehensive vision for the GC urban development.

Projects and activities to be agreed on will be implemented through one authority that will continuously coordinate with several departments or organization to achieve successful implementation.

■ Three Sectoral Programs

Three main programs that support the pillars of the vision were specified. Each one will enhance and back the detailed action steps to attain a common goal that all development partners are seeking to achieve. These programs have been specified as follows:

- Improving unplanned areas;
- Turning the GC into a cultural beacon for Africa and the Middle East; and
- Developing the GC as an international tourist destination.

Program 1

Improving Unplanned Areas

At present, there is a clear gap between supply and demand of housing in the GC, especially for low/middle income family housing. This gap represents the major challenge facing the GC inhabitants. Moreover, it led to the spread of unplanned and unsafe areas. In case of failure to bridge this gap, the problem will be aggravated with the continuous population growth.

To efficiently combat the housing gap, coordination is required among several competent authorities such as the public sector (especially governorates, city councils, government ministries, the NUCA and the GOPP) as well as the private sector (construction contractors, real estate development companies, investors and banks), in addition to the masses. This program involves implementing a set of important measures as follows:

- Introducing a policy for land allocation especially in the new urban communities;

- Improving areas allocated for low and middle income housing;
- Revisiting construction laws; and
- Providing incentives for investment.

Capacity development in the construction field in the GC is one of the important enabling factors.

In addition, tax incentives and facilities will be provided with the objective of encouraging investments in this field. Moreover, efforts will be exerted to attract foreign construction companies.

Program 2

Turning the GC into a cultural beacon for Africa and the Middle East

The GC enjoys unique constituents that make it a beacon of knowledge. The GC is home to several cultural and higher education institutions (both national and international) known for their academic excellence with large number of students enrolled. This gives the GC high competitiveness in the MEA Region, provides a good opportunity for attracting the best minds to the GC and contributes to innovation and intellectual influence. In addition, this helps create direct and indirect job opportunities with high added value.

To achieve this ambitious program, a large number of parties are required to exert efforts, starting with the public sector (such as the Ministry of Culture; the Ministry of Higher Education; the Ministry of Education, the Ministry of Housing, Utilities and Urban Communities; the Ministry

of Investment and the NUCA) and ending with the private sector (such as companies or investors and private educational institutions). The ability to attract foreign partners is one of the important factors of success. The following measures are the fundamentals for implementing this program:

- Developing cultural activities and services;
- Establishing an international partnership with global academic and cultural institutions;
- Exerting efforts to attract qualified researchers and students to promote the academic supply in the GC; and
- Improving the students' quality of life (housing, transport, facilities and leisure).

Program 3

Developing the GC as an international tourist destination

Tourism is one of the most important features of the GC character; in addition, it is a strong factor for supporting economy and the GC image. Moreover, utilizing these abilities is a clear step to achieve growth and provide job opportunities in the future.

Tourism boom depends on providing the suitable basic infrastructure. Furthermore, promoting tourism is a main condition for success, and should be done through a ministerial working group (including, the Ministry of Tourism; the Ministry of Housing, Utilities and Urban Communities; the Ministry of Transport; the Ministry of Trade and

Future Vision

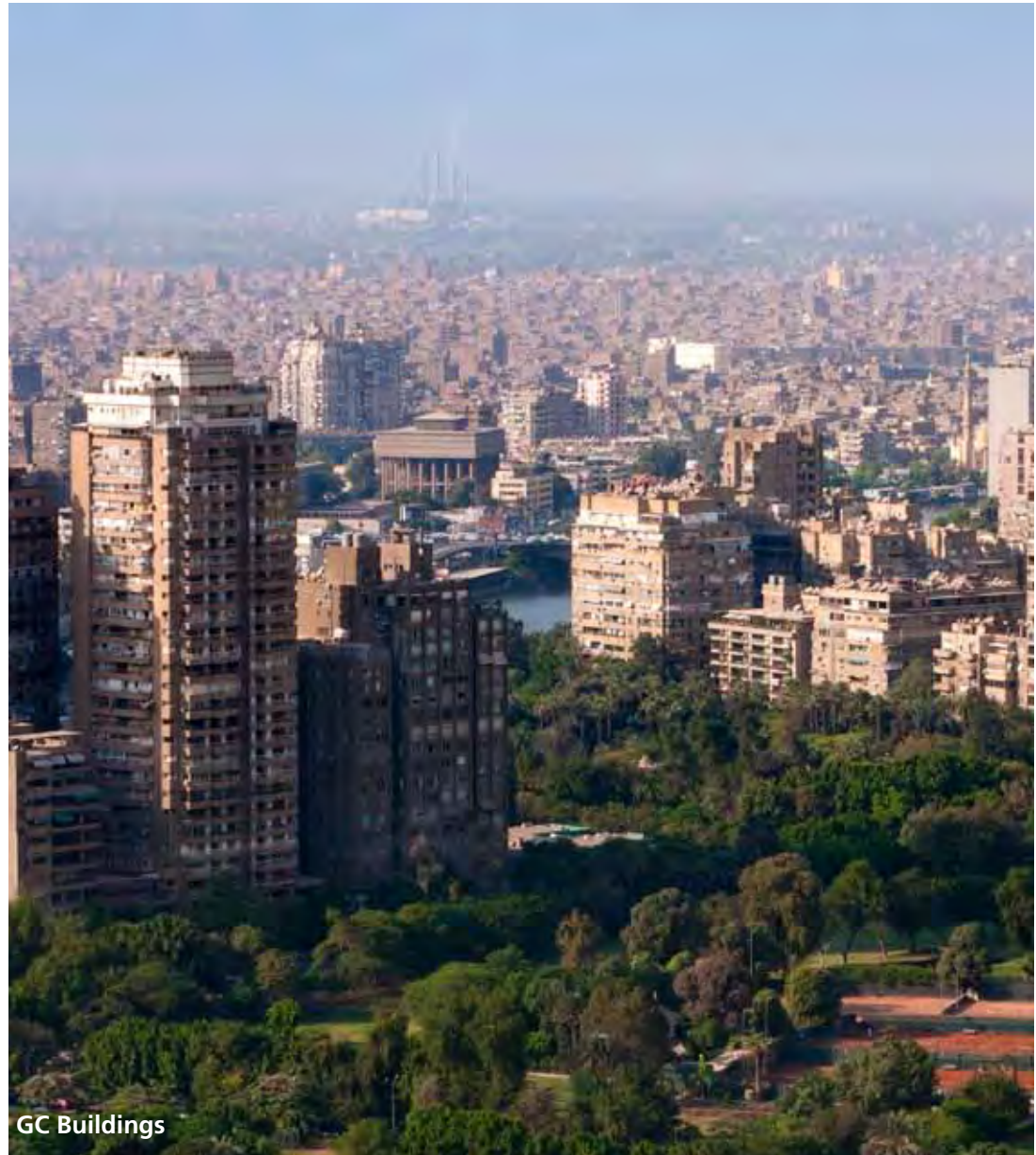
Chapter Five: Implementation of the Vision

Industry and the Ministry of Investment), in addition to private sector investors.

This program includes a wide range of procedures, including:

- Reviving the Downtown Area and improving the Corniche area.
- Developing and improving historic areas;
- Developing the fields of alternative tourism (therapeutic tourism, educational/cultural tourism and conference/shopping tourism);
- Increasing the capacity of hotels and building specialized tourist centers;
- Establishing training centers to provide skilled professionals in the field of tourism; and.
- Improving the quality of environment (e.g. by reducing air pollution and treating solid waste).

It is worth mentioning that these programs can only be achieved in the framework of good governance as explained in the previous chapter. Moreover, the success of the vision and its projects require effective participation of all sectors in the framework of supporting laws and conditions. This will only take place if there is social awareness and understanding of the importance of implementing this vision and its role in providing quality of life. Different sectors should complement each other, provide job opportunities and contribute to improving the Egyptian economy



GC Buildings

Pilot Projects

The urban development vision defines a clear path for developing the GC to resolve its urgent problems and curb the aggravation of issues related to housing, facilities and services, in order for the GC to restore its international, regional and local standing. It is also possible to reach an agreed upon vision through the participation of all concerned authorities and development partners, as well as holding community dialogues.

Pillars	Goals	Programs	Projects	Achievement of Vision
Improving residents' living conditions and quality of life				
	<ul style="list-style-type: none"> • Eradicating unsafe areas that threaten their residents' lives • unplanned areas. • Bridging the gap of housing units for low and middle income segments. 	<ul style="list-style-type: none"> • Dealing with unsafe areas according to the nature of each case, in addition to engaging the local community regarding the proposed alternatives • Enhancing the living conditions of residents of unplanned areas through providing the basic infrastructure and needed services • Providing suitable housing options for low and middle income segments to diminish the growth of unplanned areas • Improving the efficiency of transport networks, energy, freshwater and sanitation 	<ul style="list-style-type: none"> • Dealing with unplanned areas (Al Salam District, El Marj District, El Fustat Area, Al Mataria District and Nazlet El Seman Area) • Expanding the subway network by establishing 4 new subway lines • Establishing the Supertram network with 9 lines • Developing the highway network by adding 750 kilometers 	<p>Social Justice</p> <p>Environmental Friendliness</p>
Providing a competitive climate for knowledge-based economy				
	<ul style="list-style-type: none"> • The GC is the capital of science and culture in the MEA region. • Promoting the sectors of education and health as well as regional and international competitiveness • Turning the GC into an internationally-recognized area as one of the world's best investment areas 	<ul style="list-style-type: none"> • Improving the use of information technology and enhancing channels linking education with industry • Upgrading the cultural and media climate as well as the educational infrastructure • Developing the infrastructure of the health sector and establishing medical centers able to compete globally • Updating the systems of designing educational curriculum and educational methods, as well as continuous update of infrastructure and equipment 	<ul style="list-style-type: none"> • Building two educational-research complexes with high-level educational facilities, technology projects and innovation • Establishing two medical cities including one public hospital, a number of specialized hospitals and a college of nursing • Establishing two financial and business centers to exercise administrative, financial and business activities • Founding logistics areas in new urban communities • Establishing a Commercial city in Helwan • Establishing the 6th of October Airport • Improving the investment zone in Abu Rawash, Giza Governorate 	<p>Economic Competitiveness</p>
Promoting environmental conditions and achieving sustainability				
	<ul style="list-style-type: none"> • Providing a clean healthy environment and achieving sustainable development • Adopting a strategy for addressing pollution issues and their causes • Efficiency of managing and using natural resources 	<ul style="list-style-type: none"> • Enforcing the laws of environmental standards to ensure safety of residents • Establishing integrated systems for solid waste management • Providing a clean environment in the GC and taking the necessary measures to relocate polluting factories according to legislations • Setting programs for the effective use of new and renewable energy • Preserving areas of special nature 	<ul style="list-style-type: none"> • Relocating polluting factories outside the main urban mass • Increasing the green spaces • green spaces • Enhancing waste recycling system through establishing new areas for sorting, recycling and final disposal • Dealing with Nile Islands as nature reserves 	<p>Environmental Friendliness</p>
Developing the infrastructure of GC transport network				
	<ul style="list-style-type: none"> • Achieving integrated, safe and developed road transport networks 	<ul style="list-style-type: none"> • Developing the existing transport network and establishing a group of exchange stations and centers for mass transportation • Linking the GC with the surrounding areas and new urban communities through new road and transport networks 	<ul style="list-style-type: none"> • Expanding the subway network by establishing 4 new subway lines • Establishing a Supertram network with 9 lines • Improving the high way network by adding 750 kilometers • Building 6 exchange stations (including El Muneeb and Road Al Farag stations) to link transport networks. • Establishing the 6th of October Airport 	<p>Social Justice</p> <p>Economic Competitiveness</p> <p>Environmental Friendliness</p>

Future Vision

Chapter Five: Implementation of the Vision

Pillars	Goals	Programs	Projects	Achievement of Vision
Development of new urban communities as diverse and attractive centers				
	<ul style="list-style-type: none"> Supporting new urban communities and providing a climate that attracts both development and residents 	<ul style="list-style-type: none"> Strengthening new urban communities Creating new centers that attract residents in new urban communities Establishing tourist and investment centers in new cities to attract and stimulate tourism and business activities 	<ul style="list-style-type: none"> Establishing two financial and business centers to exercise administrative, financial and business activities Building two educational-research complexes with high-level educational facilities, technology projects and innovation. Establishing two medical cities including one public hospital, a number of specialized hospitals and a college of nursing Establishing tourist centers in the 6th of October to train professionals of tourism sector and traditional crafts. Establishing a subway network to link GC with new urban communities. Establishing the Supertram network to enhance connectivity with new communities. 	<p>Economic Competitiveness</p>
Preparing the climate for tourism boom and preserving historic and archaeological areas				
	<ul style="list-style-type: none"> The GC is a unique global tourist center. 	<ul style="list-style-type: none"> Improving existing tourist destinations Establishing new tourist attraction centers Protecting archeological areas and improving historic areas. Improving Nile Corniche area to be a public promenade for residents. 	<ul style="list-style-type: none"> Developing the Pyramids Plateau, building the Grand Egyptian Museum and developing unsafe areas. Establishing a safari park Developing the Nile Islands as nature reserves. Establishing a center for Arabian horses. Establishing tourist centers in the 6th of October to train professionals of tourism sector and traditional crafts. Improving the Nile Corniche (Helwan Corniche and Al Warraq Corniche). 	<p>Economic Competitiveness</p> <p>Environmental Friendliness</p>
Reviving the GC central area				
	<ul style="list-style-type: none"> Restoring the historical and cultural value of the GC central areas. 	<ul style="list-style-type: none"> Developing the Downtown Area as well as the GC central districts and squares 	<ul style="list-style-type: none"> Developing the ministries area and the Khedivial Cairo Area. Improving the Nile Corniche (Helwan Corniche and Al Warraq Corniche) 	<p>Social Justice</p> <p>Economic Competitiveness</p> <p>Environmental Friendliness</p>
Providing an effective governance system to manage development projects				
	<ul style="list-style-type: none"> Good governance for the GC to play a leading role as a political capital 	<ul style="list-style-type: none"> Providing an effective governance system to manage development projects 	<ul style="list-style-type: none"> Setting limits for the GC as one administrative region that represents the political and economic weight for Egypt Establishing an administrative entity for the GC to manage development processes Issuing a law to manage the GC in a manner to protect its competitiveness 	<p>Social Justice</p> <p>Economic Competitiveness</p> <p>Environmental Friendliness</p>

■ Conclusion

The urban development vision defines a clear path for developing the GC to resolve its urgent problems and curb the aggravation of issues related to housing, facilities and services, in order for the GC to restore its international, regional and local standing. It is also possible to reach an agreed upon vision through the participation of all concerned authorities and development partners, as well as holding community dialogues.

The ultimate goal of this vision is to improve the quality of life for all GC residents to attain social justice, with a special emphasis on low income segments. Moreover, ambitious plans were set for urban and economic growth to improve the environment in order to contribute to the achievement of the main goal.

This vision addresses all residents of different categories and cultures all over the GC communities and existing areas. They are all invited to make their inputs on this vision through the positive interaction with it to make the GC a global city that achieves “social justice, economic competitiveness and environmental friendliness.”









Appendix:
Spatial Analysis
and Development
Opportunities

Spatial Analysis and Development Opportunities

Introduction

All urban studies that were conducted have been used to come up with the GC draft strategic plan; in addition, a geographical database of the GC has been created, in accordance with the recent urban surveying of the GC main urban mass in 2009, to which several global and local houses of experiences have contributed. The surveying work included land use, states and heights of buildings, homogenous areas and ownerships. These studies represent a recent and diagnostic study of the GC.

Objective of the Study

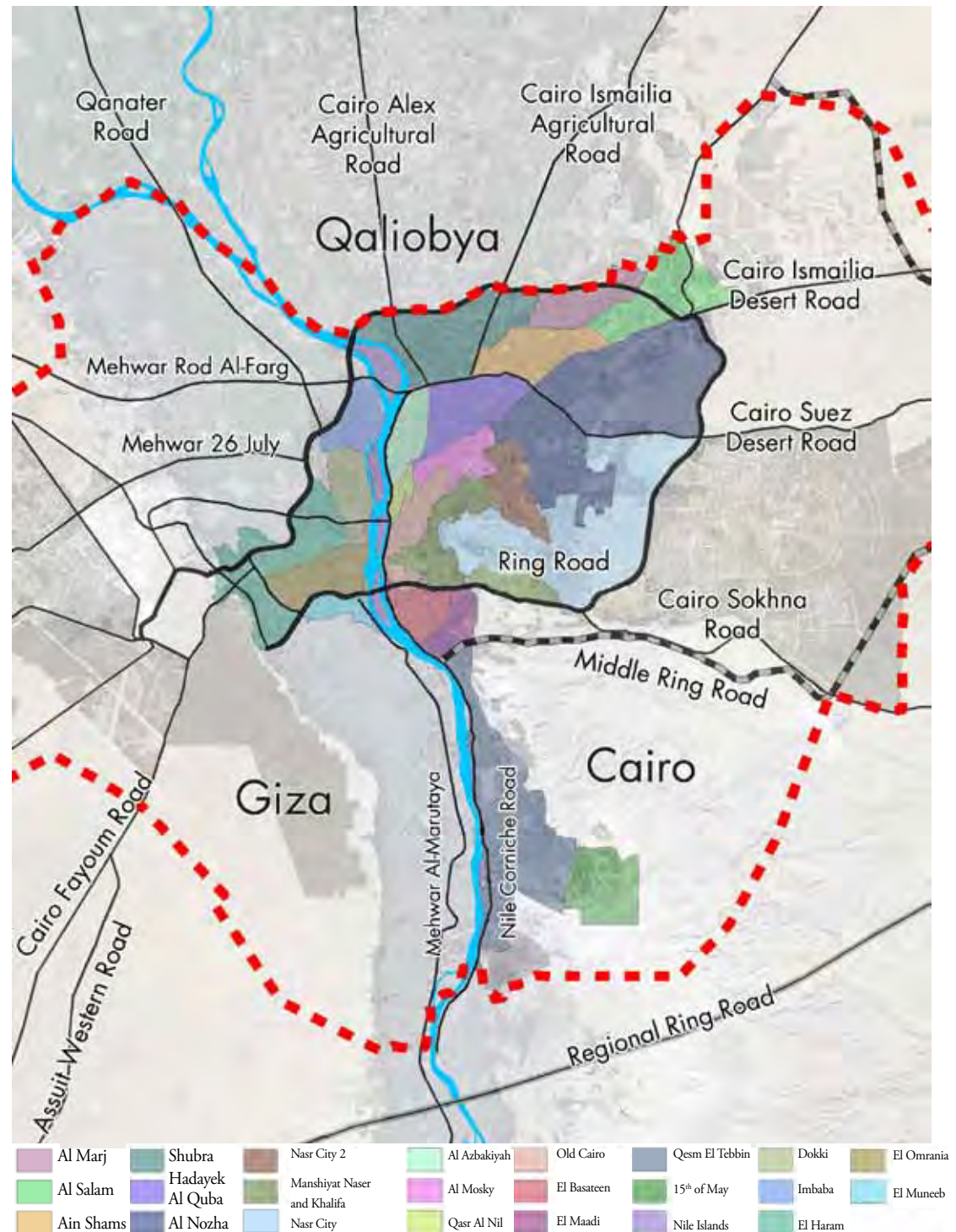
Identifying the urban situation of the GC main urban mass in 2009, with the objective of:

- Identifying the potentials and opportunities of developing all areas of the GC urban mass;
- Specifying the natural size and the accurate diagnosis of urban mass problems; and
- Determination of the space of priority projects in preparation for launching them according to the planning areas.

Spatial Analysis and Development Opportunities

- Land use on the level of building;
- Unsafe and unplanned areas;
- Unconstructed areas;
- Occupancy rate study;
- Ongoing and proposed and projects; and
- Some basic statistics, such as (population, population density and per capita share of green spaces).

Planning areas of GC main Urban Mass



Spatial Analysis and Development Opportunities

Location of Area 1: Al Marj



Area 1 (Al Marj) consists of a number of unplanned residential areas that were built on agricultural land in the north east of the outskirts of the urban mass. The area still comprises vast agricultural land (about 1324 feddans) that is under the protection of the Ministry of Interior.

The number of inhabitants in Al Marj area is about 418 thousand people and the population density hit 247 residents/feddan. The per capita share of green spaces is less than one square meter. Moreover, there are some unsafe areas that expand on an area of 18 feddans.

Land use between 2022 and 2032 as per the planning scenario

- Reducing the opportunities of the area to attract residents through banning the establishment of huge activities that provide new job opportunities;
- Allowing limited growth of planned residential areas in 2022 (+5%) and 2032 (+10%).
- Dealing with unsafe areas;
- Avoiding the establishment of more unplanned areas on the remaining agricultural land and turning some agricultural land into public parks;

Land Uses in 2009

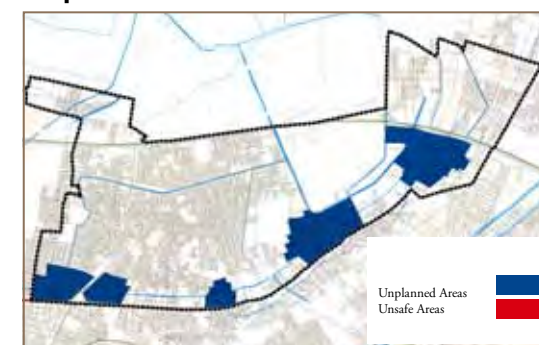


Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Housing	Planned	1271	32	1271	32	1335	34	1398	36
	Unplanned	420	11	483	12	399	10	386	10
Industrial	47	1	47	1	55	1	60	2	
Commercial	18	0	20	1	25	1	30	1	
Administrative	122	3	122	3	130	3	140	4	
Security	25	1	25	1	25	1	25	1	
Cemeteries	17	0	17	0	15	0	15	0	
Green Belt (residential – agricultural)	17	0	17	0	35	1	50	1	
Agricultural	1324	34	1272	32	1240	32	1125	29	
Vacant Land	115	3	100	3	60	2	40	1	
Other	543	14	545	14	600	15	650	17	
Total	3919	100	3919	100	3919	100	3919	100	
Number of Residents (residents)	418414		433238		415920		419240		
Population Density (residents/feddan)	247		247		240		235		
Green Areas (m ² /resident)	0.17		0.16		0.35		0.5		

Unplanned and Unsafe Areas

- Developing planned residential areas (legal ones);
- Minimizing unplanned areas (by -5% in 2022 and -8% in 2032) and increasing the land allocated for other service uses; and
- Allowing limited expansion of non-polluting industries.



Spatial Analysis and Development Opportunities

Location of Area 2: Al Salam



Area 2 (Al Salam) consists of a number of unplanned residential areas that were built on agricultural land in the north east of Cairo and the north of Cairo International Airport. The area still comprises scattered agricultural land of central locations. It also includes pieces of land used by the government (such as areas of government departments and security authorities).

The number of residents in this area is about 307 thousand people and the population density hit 165 residents/feddan. The per capita share of green spaces is almost 3.5 square meters. Moreover, there are several unsafe areas that expand on an area of 53 feddans..

Land use between 2022 and 2032 as per the planning scenario

- Limiting the housing expansion so that planned residential areas increase only by (+3%) in 2022 and (+5%) in 2032;
- Developing desert and vacant land to establish non-polluting industries, provide services and construct administrative buildings to benefit from their locations (the Airport and the Ring Road);

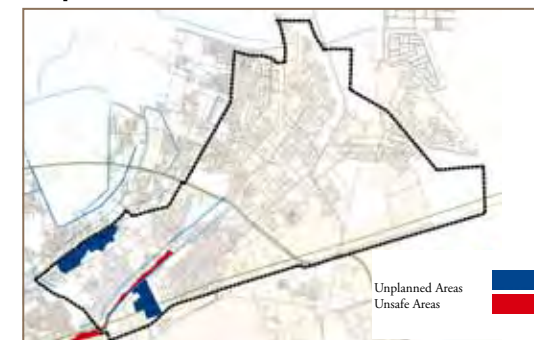
Land Uses in 2009



Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Hous- Inge	Planned	1691	26	1691	26	1742	26	1776	27
	Unplanned	170	3	250	4	161	2	156	2
Industrial	539	8	550	8	593	9	647	10	
Commercial	54	1	55	1	59	1	62	1	
Administrative	403	6	420	6	443	7	463	7	
Security	719	11	719	11	719	11	719	11	
Cemeteries	8	0	8	0	6	0	4	0	
Green Belt (residential – agricultural)	254	4	254	4	269	4	282	4	
Agricultural	401	6	370	6	380	6	360	5	
Vacant Land	1453	22	1365	21	1184	18	40	1	
Other	910	14	920	14	1046	16	950	14	
Total	6602	100	6602	100	6602	100	6602	100	
Number of Residents (residents)	307134		320265		313995		318780		
Population Density (residents/feddan)	165		165		165		165		
Green Areas (m ² /resident)	3.47		3.33		3.6		3.71		

Unplanned and Unsafe Areas



- Dealing with unsafe areas;
- Turning some vacant land into parks;
- Developing planned residential areas (legal ones);
- Minimizing unplanned areas (by -5%) in 2022 and (-8%) in 2032, and increasing the land allocated for other service uses (administrative and commercial); and
- Turning one or two cemeteries areas into public parks.

Spatial Analysis and Development Opportunities

Location of Area 3: Ain Shams



Area 3 (Ain Shams) is located in the north of Cairo and consists of a number of unplanned residential areas, in addition to several educational institutions, medical clinics and a shopping center. The area also comprises vacant land and a limited number of unconstructed space..

The number of residents in this area is about 1.3 million people with a very high population density of 518 residents/feddan. There are almost no green spaces inside this area where the per capita share of green spaces is 0.6 m². Moreover, there are several unsafe areas of about 61 feddans.

Land use between 2022 and 2032 as per the planning scenario

- Improving the urban condition of the area, in addition to establishing urban development projects;
- Stopping housing expansion in the area;
- Turning some vacant and agricultural land into green areas;

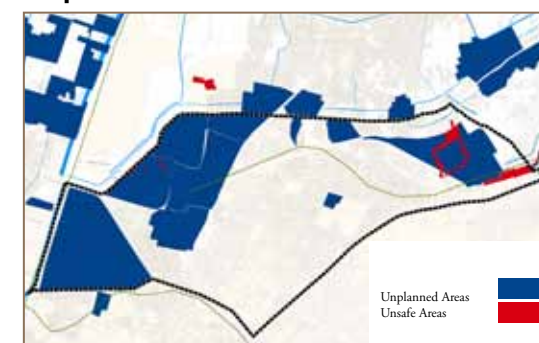
Land Uses in 2009



Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Housing	Planned	1346	29	1346	29	1346	29	1246	30
	Unplanned	1151	25	1196	26	1093	24	809	20
Industrial	205	4	205	4	205	4	205	5	
Commercial	22	0	24	1	26	1	30	1	
Administrative	313	7	313	7	313	7	263	6	
Security	0	0	0	0	0	0	0	0	
Cemeteries	25	1	25	1	20	0	15	0	
Green Belt (residential – agricultural)	192	4	192	4	318	7	357	9	
Agricultural	48	1	30	1	40	1	35	1	
Vacant Land	415	9	380	8	340	7	250	6	
Other	864	19	870	9	880	19	920	22	
Total	4581	100	4581	100	4581	100	4130	100	
Number of Residents (residents)	1293824		1316756		1263402		1064490		
Population Density (residents/feddan)	518		518		518		518		
Green Areas (m ² /resident)	0.6		0.6		1.06		3.19		

Unplanned and Unsafe Areas



- Dealing with unsafe areas;
- Developing planned residential areas (legal ones); and
- Minimizing unplanned areas (by -5%) in 2022 and (-8%) in 2032.

Spatial Analysis and Development Opportunities

Location of Area 4: Shubra



Area 4 (Shubra) consists of extended unplanned residential areas that were built on agricultural land in the north of Cairo. This area is bordered by Ismailia Canal from the south and the east

The number of residents in this area is about 1 million people, with a population density of 330 residents/feddan. This area comprises several industrial zones, some of them are very polluting and surrounded by residential blocks. Moreover, there are almost no green spaces inside the area. Furthermore, there are several unsafe areas of about 45 feddans that form a part of the unplanned residential areas and industrial zones.

Land use between 2022 and 2032 as per the planning scenario

- Dealing with unsafe areas;
- Avoiding housing expansion on the remaining agricultural land;
- Legalizing and adjusting the status of unplanned areas;
- Approving containment “Tahzim” projects;
- Expansion of other land uses (commercial uses

Land Uses in 2009

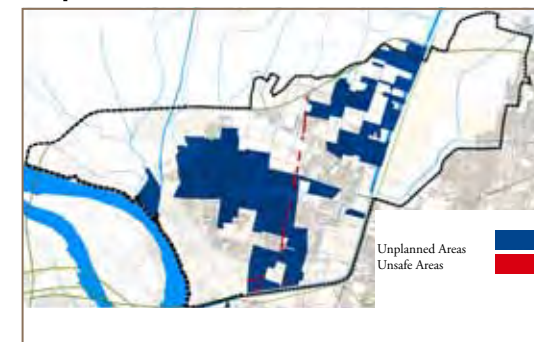


Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Hous- ing	Planned	1589	21	1759	23	2077	27	2422	32
	Unplanned	1428	19	1700	22	1285	17	1142	15
Industrial	1394	18	1394	18	1000	13	700	9	
Commercial	6	0	6	0	12	0	18	0	
Administrative	376	5	376	5	376	5	376	5	
Security	4	0	4	0	4	0	4	0	
Cemeteries	11	0	11	0	11	0	8	0	
Green Belt (residential – agricultural)	264	3	264	3	1028	13	1537	20	
Agricultural	1323	17	939	12	680	9	300	4	
Vacant Land	208	3	150	2	100	1	50	1	
Other	1044	14	1044	14	1047	14	1090	14	
Total	7647	100	7647	100	7647	100	7647	100	
Number of Residents (residents)	995487		1066560		1137180		1192620		
Population Density (residents/ feddan)	330		330		330		330		
Green Areas (m ² /resident)	1.1		1		3.9		5.5		

- and non-polluting industries);
- Turning some agricultural areas into parks;
- Relocating polluting factories outside Cairo away from residential areas;
- Rehabilitation of polluting industries (after relocating the factories) for other non-residential uses; and
- Extending the subway network to reach this area.

Unplanned and Unsafe Areas



Spatial Analysis and Development Opportunities

Location of Area 5: Hadayek Al Quba



Area 5 (Hadayek Al Quba) consists of a limited number of unplanned residential areas located in the north of the Downtown Area (Khedival Cairo).

The number of residents in this area is about 1.17 million people, with a population density of 514 residents/feddans. This area comprises industrial sites and a transport network, in addition to the presidential palace. There are almost no green areas in this area. Unsafe areas form a part of the unplanned residential areas and some industrial sites that expand on an area of about 27 feddans. It is also a full area with very limited unconstructed areas.

Land use between 2022 and 2032 as per the planning scenario

- Dealing with unsafe areas;
- Developing planned residential areas (legal ones) with the possibility to reduce the spaces;
- Limiting the increase of unplanned residential areas by (-5%) in 2022 and (-8%) in 2032; in addition to increasing other land uses (administrative and commercial);

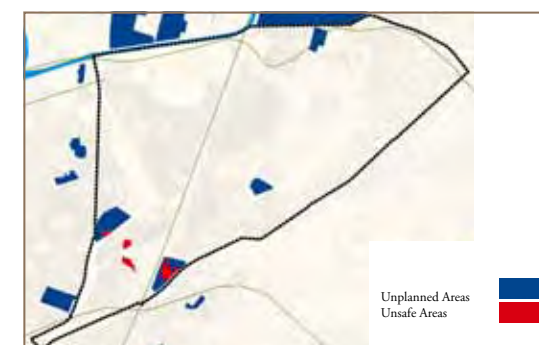
Land Uses in 2009



Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Housing	Planned	2171	43	2200	43	2150	42	2130	42
	Unplanned	110	2	115	2	104	2	101	2
Industrial	854	17	854	17	769	15	692	14	
Commercial	77	2	80	2	90	2	110	2	
Administrative	646	13	646	13	640	13	620	12	
Security	109	2	109	2	109	2	109	2	
Cemeteries	1	0	1	0	1	0	1	0	
Green Belt (residential – agricultural)	97	2	97	2	280	61	421	8	
Agricultural	102	2	82	2	51	1	0	0	
Vacant Land	38	1	20	0	0	0	0	0	
Other	870	17	870	17	880	17	890	18	
Total	5074	100	5074	100	5074	100	5074	100	
Number of Residents (residents)	1171517		1189910		1158556		1146734		
Population Density (residents/feddans)	514		514		514		514		
Green Areas (m ² /resident)	0.35		0.34		1.02		1.54		

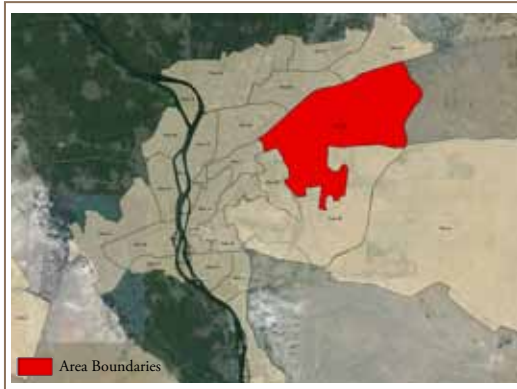
Unplanned and Unsafe Areas



- Relocation of polluting industries mainly to pieces of land that cannot be used for residential purposes;
- Increasing public parks and other land uses; and
- Developing railway zones in Ramses Square (south of the area) without the need for relocating the area's residents.

Spatial Analysis and Development Opportunities

Location of Area 6: Nozha



Area 6 (Nozha) consists of several planned residential areas, with no unplanned areas. It is located in the east of the GC and includes the Airport area (in addition to a military airport), vast security areas, the Egyptian Military Academy, Al Shams Sporting Club and the Military Equestrian Club.

The number of residents in this area is 611 thousand people, with a population density of 158 residents/ feddan. This area comprises green spaces with a rate higher than the average in Cairo. In general, unconstructed areas are limited.

Land use between 2022 and 2032 as per the planning scenario

- Developing the planned residential areas (legal ones);
- Implementation of ongoing development works and housing projects; and
- Utilizing vacant spaces and turning them into public parks and other uses (administrative and commercial).

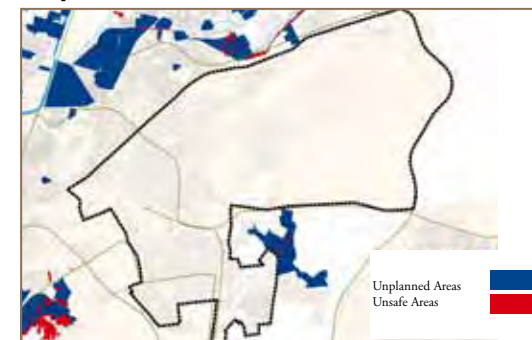
Land Uses in 2009



Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Hous- ing	Planned	3874	17	4000	18	4200	19	4300	19
	Unplanned	0	0	0	0	0	0	0	0
Industrial	9311	42	9311	42	9200	41	9100	41	
Commercial	203	1	203	1	250	1	300	1	
Administrative	1296	6	1296	6	1400	6	1600	7	
Security	2484	11	2484	11	2484	11	2484	11	
Cemeteries	67	0	67	0	60	0	50	0	
Green Belt (residential – agricultural)	1144	5	1271	6	1282	6	1300	6	
Agricultural	624	3	624	3	550	2	442	2	
Vacant Land	879	4	600	3	400	2	200	1	
Other	2445	11	2470	11	2500	11	2550	11	
Total	22326	100	22326	100	22326	100	22326	11	
Number of Residents (residents)	611163		632000		663600		679400		
Population Density (residents/ feddan)	158		158		158		158		
Green Areas (m ² /resident)	7.86		8.45		8.11		8.04		

Unplanned and Unsafe Areas

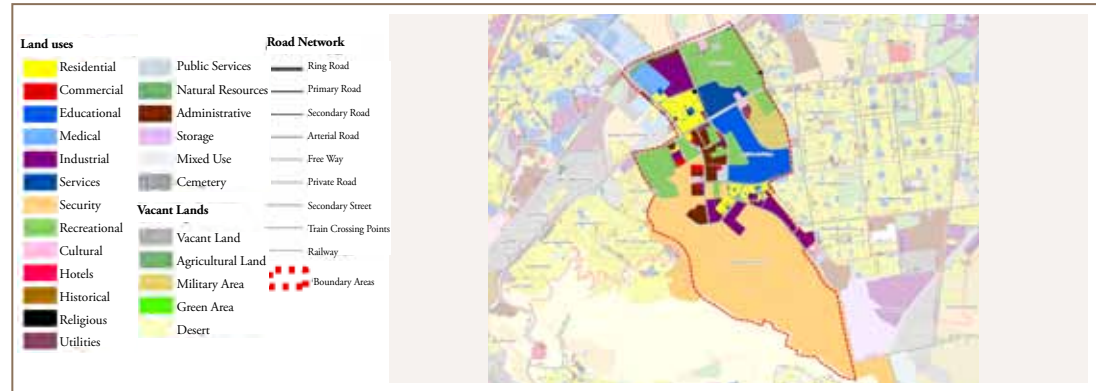


Spatial Analysis and Development Opportunities

Location of Area 7: Nasr City 2



Land Uses in 2009



Area 7 (Nasr City 2) consists of a limited number of planned residential areas; however, most of them are used for non-residential purposes. This area includes Al Azhar University, Cairo Stadium, Fairgrounds, military areas and special security areas.

The number of residents of Nasr City 2 is more than 42 thousand people, with a population density of 278 residents/feddan. The area has green spaces and there are no unsafe or unplanned areas. Furthermore, it is a full with very limited unconstructed areas.

Land use between 2022 and 2032 as per the planning scenario

Enhancing the planned residential areas and developing the Fairgrounds area;
Evaluating the potentials of redeveloping military and special security areas used for security purposes;
and

Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Housing	Planned	150	4	150	4	150	4	150	4
	Unplanned	0	0	0	0	0	0	0	0
Industrial	165	5	165	4	150	4	150	4	
Commercial	846	25	846	24	800	24	750	22	
Administrative	713	21	713	21	713	21	713	21	
Security	865	26	865	24	800	24	750	22	
Cemeteries	21	1	21	1	21	1	21	1	
Green Belt (residential – agricultural)	442	13	442	13	442	13	442	13	
Agricultural	51	2	40	1	30	1	10	0	
Vacant Land	10	0	0	0	0	0	0	0	
Other	86	3	107	7	243	7	363	11	
Total	3349	100	3349	100	3349	100	3349	100	
Number of Residents (residents)	41739		41739		41739		41739		
Population Density (residents/feddan)	278		278		278		278		
Green Areas (m ² /resident)	52.3		52.3		52.3		52.3		

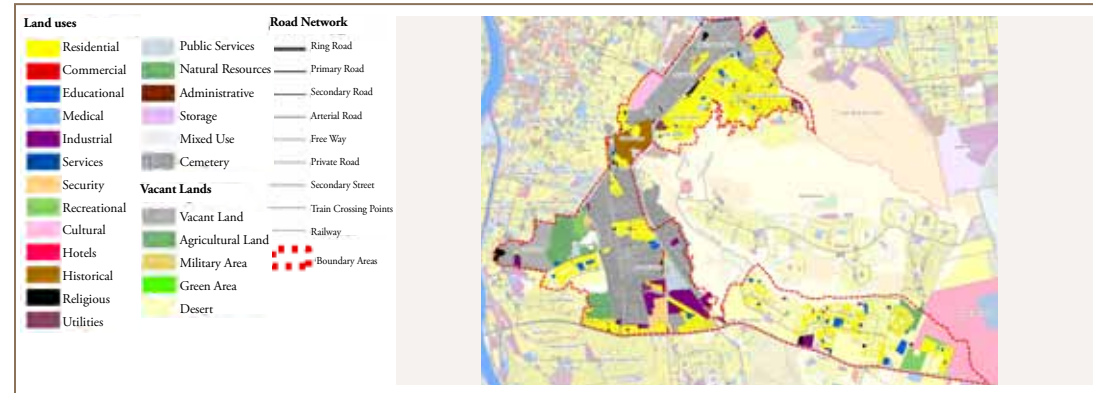
- It is possible to maximize other land uses (such as green areas, playgrounds and public parks).

Spatial Analysis and Development Opportunities

Location of Area (8): Manshiyat Naser and El Khalifa



Land Uses in 2009



Area 8 (Manshiyat Naser and El Khalifa) consists of the cemetery zones that expand over vast areas, in addition to several unplanned residential areas, the Citadel, and some agricultural spaces. Moreover, there is large desert area in the eastern part.

The number of residents of this area is about 378 thousand people and the population density hit 298 residents/feddan. The area includes one of the polluting industries (foundries). The per capita share of green spaces is 1.7 square meter. Furthermore, there are some unsafe areas with an area of 297 feddans.

Land use between 2022 and 2032 as per the planning scenario

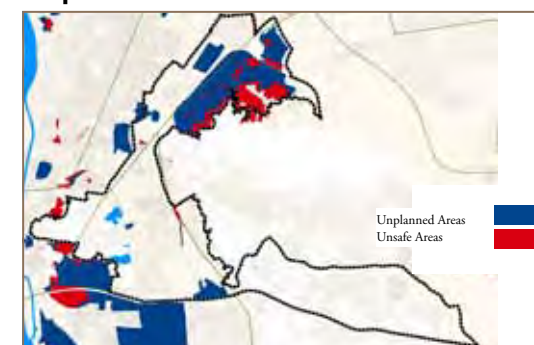
- Dealing with unsafe areas;
- Gradually relocating unplanned areas, establishment of public parks and an isolated cemetery area and the development land allocated for residential use;
- Avoiding the sprawl of unplanned areas on the remaining agricultural land;

Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Hous- Inge	Planned	388	6	388	6	600	10	700	11
	Unplanned	881	14	1000	16	500	8	300	5
Industrial	243	4	243	4	150	2	150	2	
Commercial	33	1	55	1	60	1	120	2	
Administrative	690	11	690	11	690	1	690	11	
Security	68	1	68	1	68	1	68	1	
Cemeteries	1189	19	1189	19	750	12	450	7	
Green Belt (residential – agricultural)	153	2	153	2	1083	18	1603	26	
Agricultural	245	4	230	4	130	2	50	1	
Vacant Land	1234	20	1100	18	1000	16	800	13	
Other	1007	16	1020	17	1100	18	1200	20	
Total	6131	100	6131	100	6131	100	6131	100	
Number of Residents (residents)	377858		413624		327800		298000		
Population Density (residents/feddan)	298		298		298		298		
Green Areas (m ² /resident)	1.7		1.55		13.88		22.6		

Unplanned and Unsafe Areas

- Developing unplanned and planned residential areas;
- Increasing other land uses (commercial uses);
- Restoration of various archeological sites located in the area;
- Relocating the foundries outside Cairo; and
- Developing the eastern and southern sites of the area.



Spatial Analysis and Development Opportunities

Location of Area 9: Nasr City



Area 9 (Nasr City) is located partially on steep slopes, and is bordered by the Airport from the north, the Ring Road and New Cairo from the east. The area also contains departments of the Armed Forces in addition to other unused vast areas.

The number of residents in this area exceeds 341 thousand people, with a population density of 159 residents/feddan. The area contains two major polluting industries in addition to storage establishments. The per capita share of green spaces is 13.9 square meter. The area has limited unsafe areas that expand on an area of 12 feddans.

Land use between 2022 and 2032 as per the planning scenario

- Dealing with unsafe areas;
- Stopping random housing expansion on the desert regions, for example;
- Developing planned residential areas;
- Establishing a new district for governmental departments and commercial activities;
- Relocating polluting factories outside Cairo;

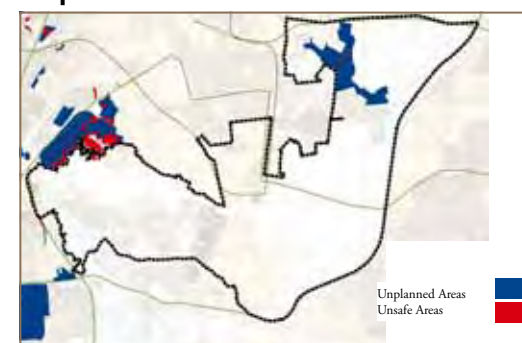
Land Uses in 2009



Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Housing	Planned	1639	9	1800	10	2100	11	2500	14
	Unplanned	504	3	504	3	454	2	409	2
Industrial	646	4	646	4	500	3	400	2	
Commercial	949	5	1000	5	1200	7	1400	8	
Administrative	1149	6	1149	6	3710	20	4500	25	
Security	7652	42	7652	42	5091	28	4000	22	
Cemeteries	277	2	277	2	200	1	150	1	
Green Belt (residential – agricultural)	1135	6	1135	6	1400	8	1600	9	
Agricultural	207	1	207	1	150	1	100	1	
Vacant Land	3183	17	2971	16	2430	13	1976	11	
Other	994	5	994	5	1100	6	1300	7	
Total	18335	100	18335	100	18335	100	18335	100	
Number of Residents (residents)	341620		366336		406086		462531		
Population Density (residents/feddan)	159		159		159		159		
Green Areas (m ² /resident)	14		13		14.5		14.5		

Unplanned and Unsafe Areas



- Developing and completing development projects in residential areas on desert lands in Mokattam; and
- Evaluating the process of relocating military sites and using vacant spaces in housing projects, entertainment projects or administrative and commercial uses.

Spatial Analysis and Development Opportunities

Location of Area 10: Al Azbakiyah



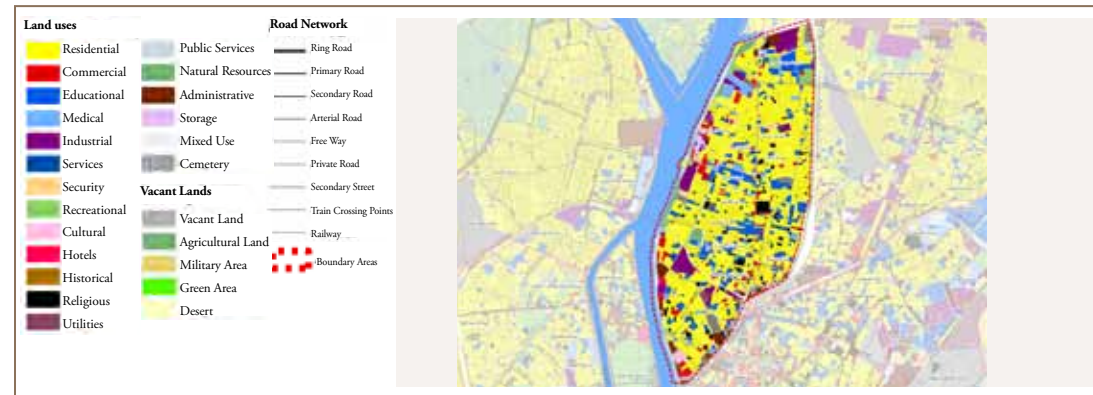
Area 10 (Al Azbakiyah) stretches along the east of Nile River in the Downtown Area, with Maspero Area to the south. The area contains industrial and commercial sites with a total area of approximately 258 feddans. Moreover, there are some small unsafe spaces, mainly residential, on an area of 21 feddans.

The number of residents in the area is about 686 thousand people, with a population density of 384 residents/feddan. The area contains some polluting industrial activities including a brick plant and some open burning sites. Green spaces are very limited, with a per capita share of green spaces of 0.28 square meter.

Land use between 2022 and 2032 as per the planning scenario

- Dealing with and re-planning unplanned areas;
- Developing planned residential areas;
- Relocating the brick plant and closing open burning sites;
- Evaluating transportation alternatives for other industrial sites;
- Conducting social and economic feasibility study for financing the development projects of Nile Corniche;
- Developing Palace Hotel Park area and pedestrian access to Geziret Al-Waraq;

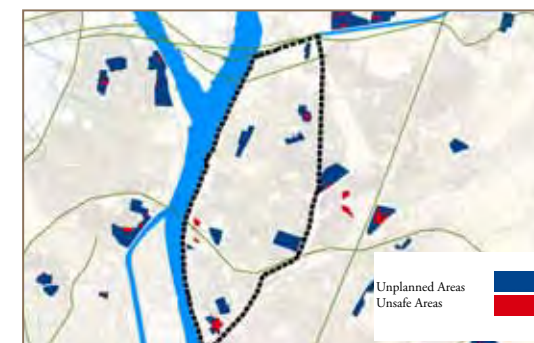
Land Uses in 2009



Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Hous- ing	Planned	1621	32	1621	32	1640	33	1789	36
	Unplanned	165	3	250	5	65	1	0	0
Industrial	420	8	420	8	350	7	250	5	
Commercial	104	2	125	3	150	3	200	4	
Administrative	668	13	668	13	420	8	370	7	
Security	17	0	17	0	17	0	17	0	
Cemeteries	0	0	0	0	0	0	0	0	
Green Belt (residential – agricultural)	46	1	46	1	150	3	200	4	
Agricultural	796	16	695	14	405	8	144	3	
Vacant Land	5	0	0	0	0	0	0	0	
Other	1155	23	1155	23	1200	24	1221	24	
Total	4997	100	4997	100	4997	100	4997	100	
Number of Residents (residents)	686181		718464		654720		686976		
Population Density (residents/feddan)	384		384		384		384		
Green Areas (m ² /resident)	0.28		0.27		0.96		1.22		

Unplanned and Unsafe Areas



Increasing green spaces through new housing projects (established earlier on agricultural lands) and the project of developing the Nile Corniche; and Developing Maspero area.

Spatial Analysis and Development Opportunities

Location of Area 11: El Mosky



Area 11 (El Mosky) has a central location in Cairo. It contains education and health buildings and sports clubs. It also includes several low-polluting industrial sites including an electrical substation. Al Mosky comprises unplanned areas on an area of about 15 feddans and some unsafe areas on an area of about 9 feddans..

The number of residents the area exceeds 244 thousand people, with a population density of 452 residents/feddan. The per capita share of green spaces is 4.1 square meters, as it comprises some sports clubs.

Land use between 2022 and 2032 as per the planning scenario

- Dealing with unsafe areas;
- Relocating/re-planning unplanned areas;
- Developing planned residential areas;
- Evaluating development alternatives of the cemetery area;

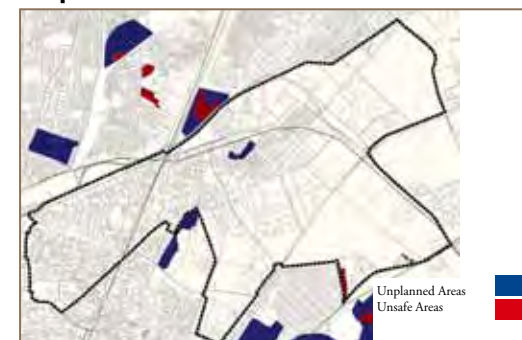
Land Uses in 2009



Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Housing	Planned	527	21	540	22	475	19	381	15
	Unplanned	15	1	15	1	0	0	0	0
Industrial	222	9	222	9	150	6	100	4	
Commercial	57	2	65	3	150	6	200	8	
Administrative	694	28	694	28	750	30	900	36	
Security	306	12	306	12	306	12	150	6	
Cemeteries	38	2	38	2	19	1	19	1	
Green Belt (residential – agricultural)	239	10	239	10	250	10	300	12	
Agricultural	24	1	10	0	0	0	0	0	
Vacant Land	14	1	0	0	0	0	0	0	
Other	363	15	371	15	400	16	450	18	
Total	2500	100	2500	100	2500	100	2500	100	
Number of Residents (residents)	244843		250860		214700		172212		
Population Density (residents/feddan)	452		452		452		452		
Green Areas (m ² /resident)	4.1		4		4.89		7.32		

Unplanned and Unsafe Areas



- Evaluating the necessity/possibility of relocating industrial sites;
- Creating opportunities for expanding commercial and administrative development projects; and
- Evaluating alternatives for relocating/developing security sites.

Spatial Analysis and Development Opportunities

Location of Area 12: Qasr El Nil



Area 12 (Qasr El Nil) is the central business district of Cairo. It is home to many headquarters of ministries, the People's Assembly, the Shura Council, hotels, embassies and business activities. It does not contain unplanned areas and vacant lands are very limited.

The number of residents in this area is about 47 thousand people, with a population density of 336 residents/feddan. The area has limited green spaces, with a per capita share of green spaces of 6.8 square meter; such green spaces mainly exist along the Nile River and are scattered in different places of the area. These green spaces need more evaluation.

Land use between 2022 and 2032 as per the planning scenario

- Developing planned residential areas and allowing changes to land use patterns (e.g. by renewing Garden City to become a hotel area that includes some small institutions);
- Renovating public spaces and providing spaces for pedestrians to act as an attracting factor for domestic and global tourism as well as for Cairo residents;
- Expansion of commercial land uses;
- Developing public transport lines and allocating parking spaces;
- Establishing pedestrian paths along the Nile Corniche;

Land Uses in 2009



Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Hous- ing	Planned	139	17	139	17	100	13	80	10
	Unplanned	0	0	0	0	0	0	0	0
Industrial	20	3	20	3	10	1	0	0	
Commercial	106	13	117	15	272	34	382	48	
Administrative	261	33	261	33	130	16	50	6	
Security	7	1	7	1	7	1	7	1	
Cemeteries	0	0	0	0	0	0	0	0	
Green Belt (residential – agricultural)	76	10	76	10	100	13	100	13	
Agricultural	10	1	0	0	0	0	0	0	
Vacant Land	2	0	0	0	0	0	0	0	
Other	179	22	179	22	180	23	180	23	
Total	799	100	799	100	799	100	799	100	
Number of Residents (residents)	46668		46704		33600		26880		
Population Density (residents/feddan)	336		336		336		336		
Green Areas (m ² /resident)	6.8		6.8		12.8		15.6		

- Converting industrial land uses to other use patterns and establishing garages and underground parking spaces; and
- Maintaining the general urban plan of Garden City area and the area of archeological buildings.

Spatial Analysis and Development Opportunities

Location of Area 13: Old Cairo (Masr el Qad'ma)



Area 13 (Old Cairo) is located in the east of the central business district, as it partially extends along the Nile River. It includes vast unplanned residential areas that reach 545 feddans, with 197 feddans of them classified as unsafe areas. Many of the planned areas it contains are deteriorated. The area has diverse land use patterns. Moreover, it contains many archeological sites, mosques, and cemeteries. It has very limited green spaces, with a per capital share of green spaces of 0.7 square meter.

The number of residents in this area is 487 thousand people, with a population density of 299 residents/ feddan.

Land use between 2022 and 2032 as per the planning scenario

- Dealing with unsafe areas;
- Developing or relocating unplanned residential areas;
- Restoration of public spaces and providing pedestrian paths, for the area to attract domestic and foreign tourism as well as the Egyptians in general (archaeological areas, shops, recreational areas and cultural locations);
- Restoration of archaeological areas and developing neighboring public squares;

Land Uses in 2009

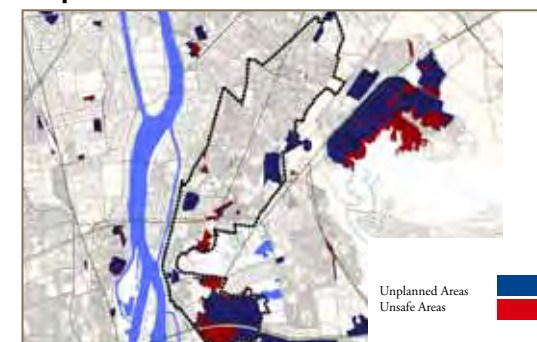


Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Housing	Planned	1083	33	1200	37	1317	40	1387	43
	Unplanned	545	17	545	17	300	9	250	8
Industrial	140	4	140	4	100	3	50	2	
Commercial	100	3	120	4	150	5	200	6	
Administrative	553	17	553	17	553	17	553	17	
Security	12	0	12	0	12	0	12	0	
Cemeteries	171	5	171	5	140	4	100	3	
Green Belt (residential – agricultural)	82	3	82	3	150	5	200	6	
Agricultural	65	2	50	2	30	1	0	0	
Vacant Land	56	2	50	2	0	0	0	0	
Other	445	14	329	10	500	15	500	15	
Total	3252	100	3252	100	3252	100	3252	100	
Number of Residents (residents)	486626		521755		483483		489463		
Population Density (residents/ feddan)	299		299		299		299		
Green Areas (m ² /resident)	0.7		0.66		1.3		1.72		

Unplanned and Unsafe Areas

- Increasing commercial uses of lands (shops, offices and hotels);
- Relocation of foundries;
- Relocation of ministries to the new central business district; and
- Evaluating the alternatives for relocating polluting small industries outside the area.



Spatial Analysis and Development Opportunities

Location of Area14: El Basateen



Area 14 (El Basateen) is one of the biggest unplanned residential areas that has unplanned areas expanding on 938 feddans, with total planned residential areas of 492 feddans. No unsafe areas have been detected, and there are no polluting factories. There are some commercial and administrative projects extending along the Nile River. The area contains one drinking water purification plant. There are no green spaces; however, there are some vacant lands and agricultural lands extending along the Nile River.

The number of residents in this area is 638 thousand people, with a population density of 446 residents/ feddan

Land use between 2022 and 2032 as per the planning scenario

- Using agricultural and vacant lands as recreational areas, especially in central parts of the area;
- Developing unplanned areas, with the objective of reducing the percentage of 2009 to 90% by 2022 and to 80% by 2032;

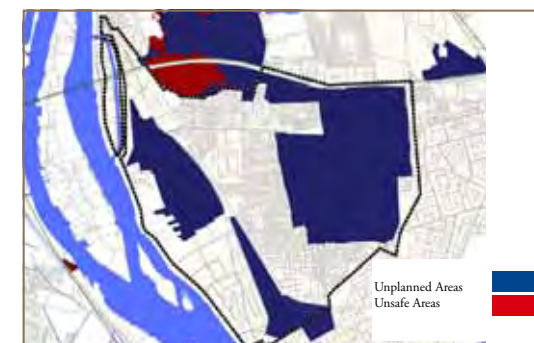
Land Uses in 2009



Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Hous- Inge	Planned	492	19	492	19	586	23	680	26
	Unplanned	938	36	1117	43	844	33	750	29
Industrial	131	5	131	5	120	5	100	4	
Commercial	83	3	100	4	150	6	150	6	
Administrative	195	8	195	8	225	9	225	9	
Security	3	0	3	0	0	0	0	0	
Cemeteries	0	0	0	0	0	0	0	0	
Green Belt (residential – agricultural)	10	0	10	0	175	7	195	8	
Agricultural	175	7	40	2	0	0	0	0	
Vacant Land	73	3	20	1	0	0	0	0	
Other	484	19	476	18	484	19	484	19	
Total	2584	100	2584	100	2584	100	2584	100	
Number of Residents (residents)	638410		717592		637869		637958		
Population Density (residents/ feddan)	446		446		446		446		
Green Areas (m ² /resident)	0.1		0.1		1.2		1.3		

Unplanned and Unsafe Areas



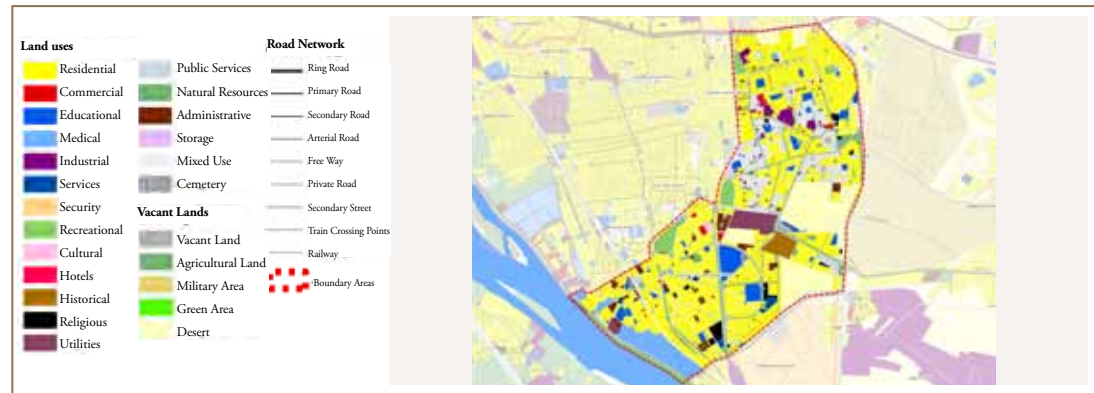
- Starting the development of the area without large-scale demolition procedures;
- Increasing commercial uses (shops, offices and hotels), especially along the Nile River; and
- Increasing green spaces to increase the per capita share of green spaces from 0.1 to 1.3 square meters by the year of 2032.

Spatial Analysis and Development Opportunities

Location of Area 15: El Maadi



Land Uses in 2009



Area 15 (El Maadi) is a major planned residential area. It has only a small part of unplanned areas in Izbet Nafee. It includes a number hospitals, educational institutions, and a sports club. No unsafe areas have been detected, and the area has no polluting industries. There are some desert lands and vast vacant lands in the east of the area. The per capita share of green spaces that extend along the Nile River is 10.9 square meter.

The number of residents in this area is 27 thousand people, with a population density of 32 residents/ feddan.

Land use between 2022 and 2032 as per the planning scenario

- Evaluating development alternatives for establishing some residential units for low income peoples living in neighboring unplanned areas;
- Establishing more planned residential areas;
- Maintaining/combining residential neighborhoods in larger planned areas; and
- Establishing more commercial areas (hotels).

Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Housing	Planned	849	38	1000	45	1000	45	1100	49
	Unplanned	0	0	0	0	0	0	0	0
Industrial	72	3	72	3	72	3	72	3	
Commercial	135	6	135	6	150	7	150	7	
Administrative	289	13	289	13	289	13	289	13	
Security	3	0	3	0	3	0	3	0	
Cemeteries	0	0	0	0	0	0	0	0	
Green Belt (residential – agricultural)	70	3	70	3	120	5	140	6	
Agricultural	89	4	60	3	50	2	0	0	
Vacant Land	254	11	100	4	59	3	0	0	
Other	463	21	494	22	480	22	469	21	
Total	2223	100	2223	100	2223	100	2223	100	
Number of Residents (residents)	26981		32000		32000		35200		
Population Density (residents/ feddan)	32		32		32		32		
Green Areas (m ² /resident)	10.9		9.2		13.1		16.7		

Unplanned and Unsafe Areas



Spatial Analysis and Development Opportunities

Location of Area 16: El Tebbin



Land Uses in 2009



Area 16 (El Tebbin) is located in the south of Cairo. It is an vast area that extends along the Nile River. It includes unplanned areas of around 1483 feddans with 224 feddans of them classified as unsafe areas. It also has eight major industrial establishment and one foundry classified as environment-polluting industries. It still contains large agricultural areas.

The number of residents is 708 thousand people, with a population density of 149 residents/feddan. It has very limited green spaces, with a per capita share of green spaces of is 1.89 square meters.

Land use between 2022 and 2032 as per the planning scenario

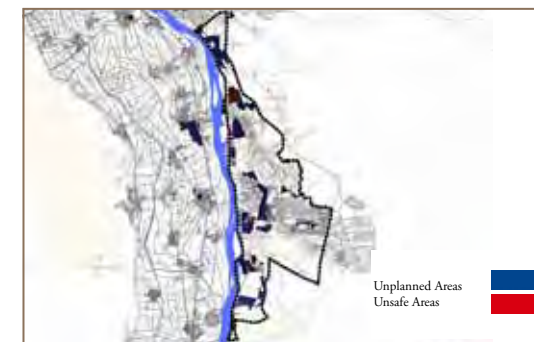
- Dealing with unsafe areas;
- Relocating/developing unplanned areas;
- Developing planned residential areas;
- Relocating polluting factories;
- Evaluating the necessity/possibility of relocating environment-polluting industrial sites;

Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Hous- Inge	Planned	3282	23	3400	24	5200	37	5600	40
	Unplanned	1483	10	1800	13	0	0	0	0
Industrial	2778	20	2778	20	1700	12	1500	11	
Commercial	44	0	100	1	300	2	350	2	
Administrative	932	7	932	7	1300	9	1600	11	
Security	327	2	327	2	327	2	327	2	
Cemeteries	157	1	157	1	100	1	100	1	
Green Belt (residential – agricultural)	318	2	318	2	900	6	1000	7	
Agricultural	1319	9	1000	7	1000	7	950	7	
Vacant Land	1327	9	1152	8	737	5	137	1	
Other	2197	16	2200	16	2600	18	2600	18	
Total	14164	100	14164	100	14164	100	14164	100	
Number of Residents (residents)	707937		774800		774800		774800		
Population Density (residents/feddan)	149		149		149		149		
Green Areas (m ² /resident)	1.89		1.72		4.88		5.03		

Unplanned and Unsafe Areas

- Evaluating alternatives of re-planning the cemetery area; and
- Allowing the expansion of commercial and administrative projects.



Spatial Analysis and Development Opportunities

Location of Area 17: The 15th of May



Area 17 (The 15th of May) is relatively small and is located in the south of Cairo. It was constructed for housing purposes and it is still in the stage of development. The area includes an open burning site that represents a source of pollution. No unplanned or unsafe areas have been detected in the area. It has low population density. Urban development activities have not covered the area in full.

The number of residents in this area is around 49 thousand people, with a population density of 54 residents/feddan. The area has very limited green spaces, with a per capita share of green spaces of 0.94 square meters.

Land use between 2022 and 2032 as per the planning scenario

- There are no key differences with the area's expected plan for continuous development;
- Studying the need for basic services such as schools and therapeutic centers;

Land Uses in 2009



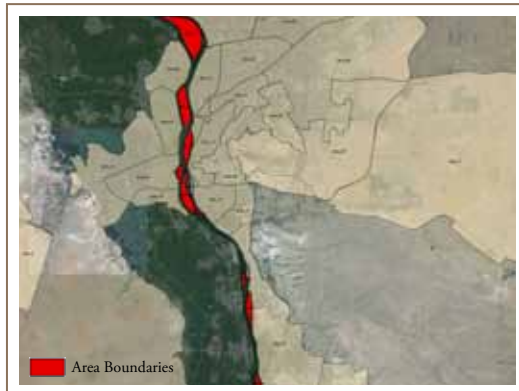
Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Housing	Planned	903	19	1500	31	2500	52	3500	72
	Unplanned	0	0	0	0	0	0	0	0
Industrial	75	2	100	2	150	3	200	4	
Commercial	23	0	50	1	100	2	150	3	
Administrative	186	4	186	4	300	6	400	8	
Security	0	0	0	0	0	0	0	0	
Cemeteries	0	0	0	0	0	0	0	0	
Green Belt (residential – agricultural)	11	0	11	0	100	2	200	4	
Agricultural	252	5	150	3	100	2	0	0	
Vacant Land	1075	22	400	8	0	0	0	0	
Other	2526	52	2447	51	1594	33	394	8	
Total	4844	100	4844	100	4844	100	4844	100	
Number of Residents (residents)	48885		81000		135000		189000		
Population Density (residents/feddan)	54		54		54		54		
Green Areas (m ² /resident)	0.94		0.57		3.1		4.44		

- Relocating open burning sites (solid waste);
- Increasing green spaces; and
- Evaluating the possibility (feasibility) of establishing industrial/commercial sites in the area, especially in the southern and eastern expansions of the area.

Spatial Analysis and Development Opportunities

Location of Area 18: Nile Islands



Area 18 (Nile Islands) consists of nine islands in the Nile River. Islands located in the south and in the north are used (such as Geziret Al-Warraq) for agriculture, while the most central islands include hotels, administrative, diplomatic and cultural activities as well as sports clubs (such as Zamalek Island). It has no unplanned or unsafe areas, but there is unplanned development in Geziret El-Dahab, Geziret Al-Warraq, Geziret El Qursaya.

The number of residents in this area is around 100 thousand people, with a population density of 225 residents/feddan. The per capita share of green spaces is 12.4 square meters.

Land use between 2022 and 2032 as per the planning scenario

- Controlling unplanned growth, especially in Geziret El-Dahab, Geziret Al-Warraq, Geziret El Qursaya;
- Implementing development projects in Geziret El-Dahab and Geziret El Qursaya so they include recreational and tourist activities;
- Developing Geziret Al-Warraq as a public park for

Land Uses in 2009



Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Hous- ing	Planned	440	12	440	12	400	11	400	11
	Unplanned	0	0	100	3	0	0	0	0
Industrial	41	1	41	1	41	1	41	1	
Commercial	30	1	40	1	200	6	300	8	
Administrative	250	7	250	7	600	17	700	20	
Security	3	0	3	0	3	0	3	0	
Cemeteries	0	0	0	0	0	0	0	0	
Green Belt (residential – agricultural)	292	8	292	8	1000	28	1500	42	
Agricultural	1895	53	1811	51	1034	29	334	9	
Vacant Land	86	2	60	2	0	0	0	0	
Other	541	15	541	15	300	8	300	8	
Total	3578	100	3578	100	3578	100	3578	100	
Number of Residents (residents)	99198		121500		90000		90000		
Population Density (residents/feddan)	225		225		225		225		
Green Areas (m ² /resident)	12.4		10.1		46.7		70		

Unplanned and Unsafe Areas



Cairo residents;

- Restoration of archeological areas and public squares;
- Increasing commercial activities (hotels) and recreational activities (sports clubs and leisure) along the Nile River; and
- Providing alternatives for agricultural use in Nile Islands.

Spatial Analysis and Development Opportunities

Location of Area 19: Dokki



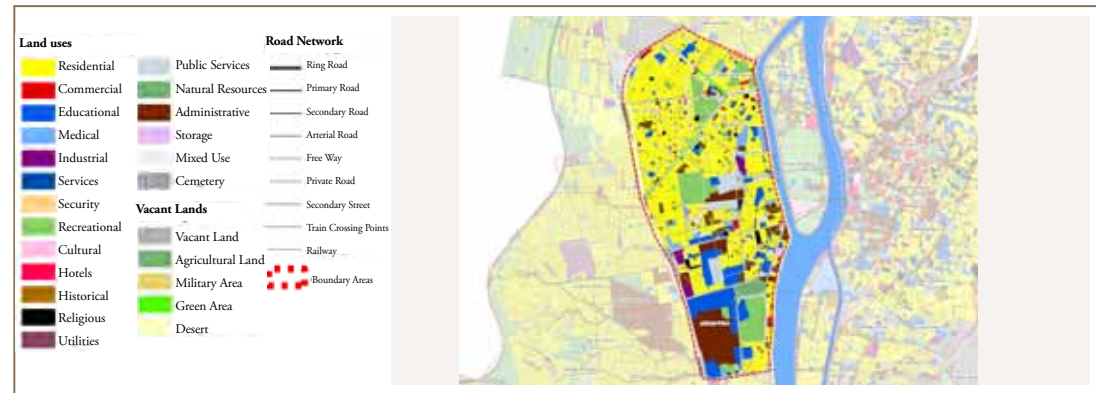
Area 19 (Dokki) is located in Giza governorate along the west bank of the Nile River. The area includes Cairo University and the Giza Zoo. Most of area land is used for housing purposes. It includes unplanned areas on an area of 53 feddans, with 14 feddans of them classified as unsafe areas. In addition to the zoo, the area has vast green areas, in addition to a number of sports clubs.

The number of residents in this area is around 297 thousand people, with a population density of 243 residents/feddan.

Land uses between 2022 and 2032 as per the planning scenario

- Developing parking areas and garages;
- Dealing with unsafe areas;
- Developing unplanned areas;
- Developing and maintaining planned residential areas;

Land Uses in 2009

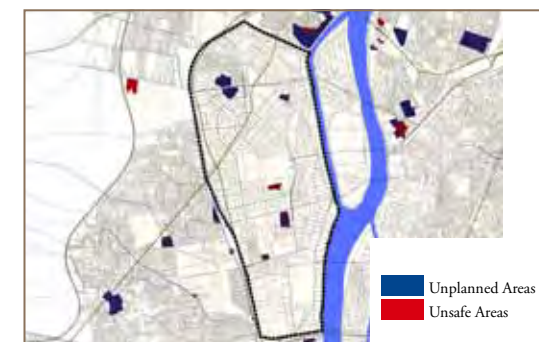


Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Housing	Planned	1171	38	1208	39	1100	36	1000	32
	Unplanned	53	2	53	2	0	0	0	0
Industrial	46	1	46	1	46	1	46	1	
Commercial	47	2	60	2	150	5	250	8	
Administrative	848	27	848	27	900	29	900	29	
Security	9	0	0	0	0	0	0	0	
Cemeteries	0	0	0	0	0	0	0	0	
Green Belt (residential – agricultural)	289	9	289	9	348	11	348	11	
Agricultural	50	2	30	1	0	0	0	0	
Vacant Land	31	1	10	0	0	0	0	0	
Other	541	18	541	18	541	18	541	18	
Total	3085	100	3085	100	3085	100	3085	100	
Number of Residents (residents)	297461		306423		267300		243000		
Population Density (residents/feddan)	243		243		243		243		
Green Areas (m ² /resident)	4.1		3.97		5.47		6.01		

Unplanned and Unsafe Areas

- Developing the limited vacant and agricultural lands to be used for non-residential activities (commercial and administrative activities); and
- Establishing commercial activities along the Nile River.



Spatial Analysis and Development Opportunities

Location of Area 20: Imbaba



Area 20 (Imbaba) is a residential area located in the north of Giza along the Nile River. It contains a number unplanned areas in a total area of 175 feddans, with 13 feddans of them classified as unsafe areas. Imbaba Area contains a ship repair workshop and a military runway that is currently unused. It has a number of open burning sites and many adjacent rural areas in the west. It has very limited green spaces, with a per capita share of green spaces of 0.21 square meters.

The number of residents in this area is around 543 thousand people, with a population density of 294 residents/feddan.

Land use between 2022 and 2032 as per the planning scenario

- Establishing a park overlooking the Nile Corniche;
- Providing alternatives for developing the Airport area;
- Providing alternatives for developing the space overlooking the Nile River in the south of the park;

Land Uses in 2009

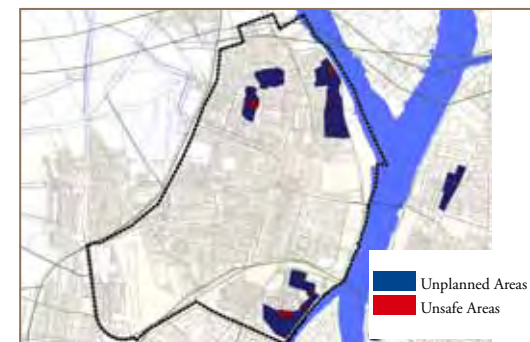


Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Hous- ing	Planned	1671	55	1700	56	1900	63	1900	63
	Unplanned	175	6	200	7	0	0	0	0
Industrial	319	11	319	11	111	4	50	2	
Commercial	18	1	25	1	100	3	200	7	
Administrative	266	9	266	9	166	6	110	4	
Security	3	0	3	0	3	0	3	0	
Cemeteries	0	0	0	0	0	0	0	0	
Green Belt (residential – agricultural)	27	1	27	1	238	9	300	10	
Agricultural	88	3	60	2	0	0	0	0	
Vacant Land	80	3	46	2	0	0	0	0	
Other	366	12	366	12	449	15	449	15	
Total	3012	100	3012	100	3012	100	3012	100	
Number of Residents (residents)	542645		558600		558600		558600		
Population Density (residents/feddan)	294		294		294		294		
Green Areas (m ² /resident)	0.21		0.2		2.13		2.26		

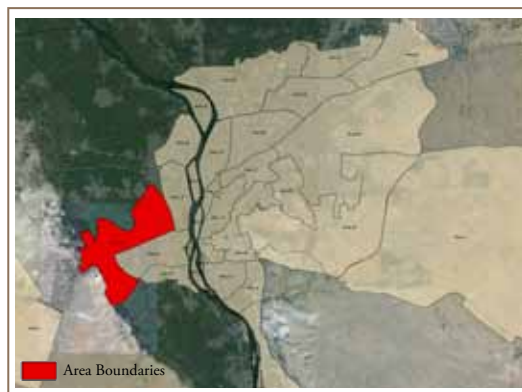
Unplanned and Unsafe Areas

- Developing current residential areas;
- Expanding services areas along the Nile River;
- Opening new axes inside the area to facilitate connectivity with neighboring areas; and
- Dealing with unsafe areas.



Spatial Analysis and Development Opportunities

Location of Area 21: El Haram



Area 21 (El Haram) is located beside the Pyramids Plateau and consists of a number of residential unplanned areas on 520 feddans, with 15 feddans of them classified as unsafe areas. Lands in the northwest and southwest are mainly used for agriculture. There is a number of open burning sites for solid waste and three major polluting factories.

The number of residents in this area is 790 thousand people, with a population density of 190 residents/ feddan. It has very limited green spaces, with a per capita share of green spaces of 0.59 square meters.

Land use between 2022 and 2032 as per the planning scenario:

- Relocating residents of unplanned area to new social housing projects or developing these areas;
- Closing open burning sites and relocating polluting factories outside the residential area;
- Dealing with unsafe areas;
- Increasing the number of parks and commercial

Land Uses in 2009

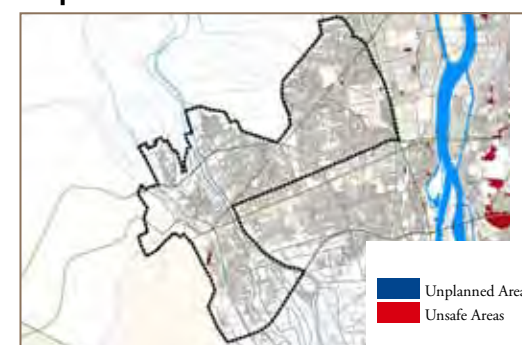


Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Housing	Planned	3627	42	3800	44	4100	47	4400	51
	Unplanned	520	6	600	7	260	3	0	0
Industrial	199	2	199	2	100	1	50	1	
Commercial	141	2	180	2	400	5	600	7	
Administrative	424	5	424	5	300	3	300	3	
Security	2	0	2	0	2	0	2	0	
Cemeteries	9	0	9	0	0	0	0	0	
Green Belt (residential – agricultural)	111	1	111	1	300	3	333	4	
Agricultural	1708	20	1467	17	575	7	300	3	
Vacant Land	351	4	300	3	175	2	0	0	
Other	1620	19	1620	19	1500	17	600	7	
Total	8712	100	8712	100	8712	100	8712	100	
Number of Residents (residents)	789728		1111114		1111114		1472582		
Population Density (residents/ feddan)	190		190		190		190		
Green Areas (m ² /resident)	0.59		0.6		0.6		0.9		

- use of lands (hotels overlooking the Pyramids);
- Establishing the new Egyptian museum; and
- Preserving the Pyramids area and developing the neighboring residential areas.

Unplanned and Unsafe Areas



Spatial Analysis and Development Opportunities

Location of Area 22: El Omrania



Land Uses in 2009



Area 22 (El Omrania) mainly consists of planned residential areas and some unplanned areas on an area of 180 feddans, with 11 feddans of them classified as unsafe areas. There is a number of open burning sites and two small environment-polluting factories. It still has limited agricultural spaces.

The number of residents in this area is 750 thousand people, with a population density of 324 residents/ feddan. It has limited green spaces, with a per capita share of green spaces of 0.16 square meters.

Land use between 2022 and 2032 as per the planning scenario

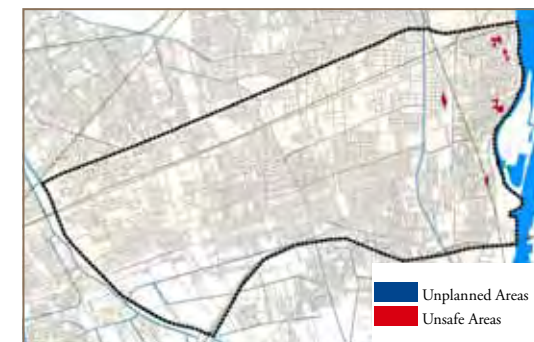
- Dealing with unsafe areas;
- Developing unplanned areas and converting them into new social housing projects;
- Closing open burning sites and relocating the two polluting factories;
- Launching urban development projects in the area; and

Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Hous- ing	Planned	2128	51	2400	58	2400	58	2500	60
	Unplanned	180	4	250	6	90	2	0	0
Industrial	189	5	189	5	100	2	100	2	
Commercial	61	1	80	2	300	7	380	9	
Administrative	300	7	300	7	300	7	300	7	
Security	12	0	12	0	12	0	12	0	
Cemeteries	0	0	0	0	0	0	0	0	
Green Belt (residential – agricultural)	28	1	28	1	138	3	138	3	
Agricultural	398	10	91	2	50	1	0	0	
Vacant Land	133	3	80	2	40	1	0	0	
Other	714	17	714	17	714	17	714	17	
Total	4144	100	4144	100	4144	100	4144	100	
Number of Residents (residents)	748593		858600		806760		810000		
Population Density (residents/ feddan)	324		324		324		324		
Green Areas (m ² /resident)	0.16		0.14		0.72		0.72		

- Increasing the number of recreational activities along the Nile River.

Unplanned and Unsafe Areas



Spatial Analysis and Development Opportunities

Location of Area 23: El Muneeb



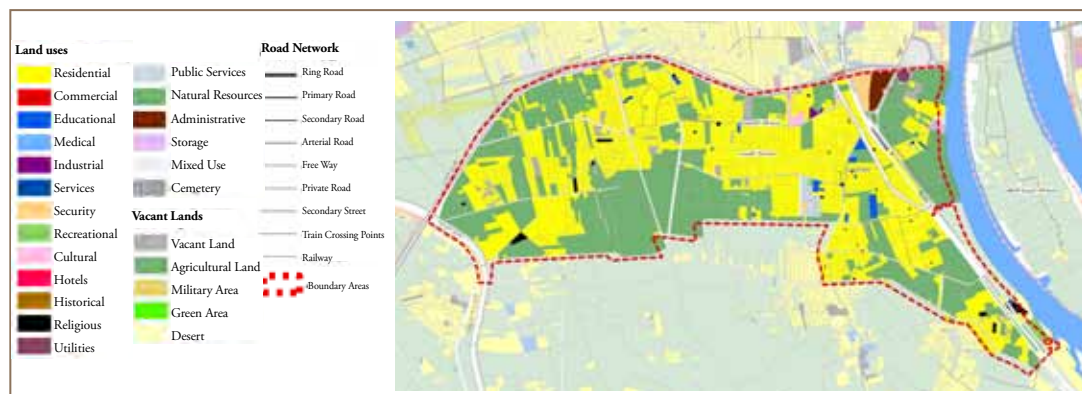
Area 23 (El Muneeb) is located in the confluence point of urban and rural areas in the southeast of Giza. It includes vast agricultural spaces, and it is exposed to the danger of the sprawl of unplanned areas on the agricultural land. It consists of big unplanned area surrounded by smaller unplanned ones. It has an unsafe area on an area not exceeding 4 feddans.

The number of residents in this area is 203 thousand people, with a population density of 325 residents/ feddan. It has very limited green spaces, with a per capita share of green spaces of 0.45 square meter.

Land use between 2022 and 2032 as per the planning scenario:

- Dealing with unsafe areas;
- Developing unplanned areas;
- Developing El Muneeb area;
- Imposing more restrictions on building in this areas; and

Land Uses in 2009

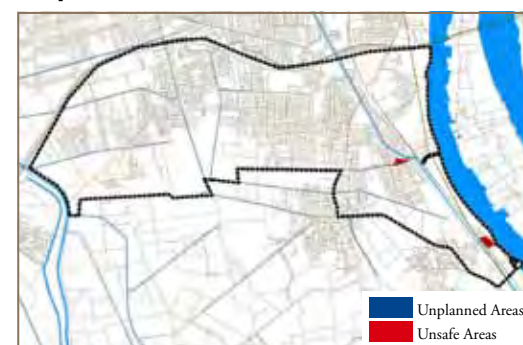


Percentage Distribution of Land Uses and Residents

Land Uses	2009		2022				2032		
	Feddan	%	Expected		Target Plan		Target Plan		
			Feddan	%	Feddan	%	Feddan	%	
Housing	Planned	492	30	600	37	800	49	900	55
	Unplanned	135	8	300	18	60	4	0	0
Industrial	6	0	6	0	6	0	6	0	
Commercial	0	0	25	2	100	6	150	9	
Administrative	42	3	42	3	42	3	42	3	
Security	9	1	9	1	9	1	9	1	
Cemeteries	0	0	0	0	0	0	0	0	
Green Belt (residential – agricultural)	22	1	22	1	75	5	100	6	
Agricultural	647	40	361	22	255	16	140	9	
Vacant Land	27	2	15	1	0	0	0	0	
Other	250	15	250	15	250	15	250	15	
Total	1630	100	1630	100	1630	100	1630	100	
Number of Residents (residents)	203466		292500		279500		292500		
Population Density (residents/ feddan)	325		325		325		325		
Green Areas (m ² /resident)	0.45		0.32		1.13		1.44		

Unplanned and Unsafe Areas

- Preserving agricultural lands and allowing limited urban development projects to avoid the sprawl of slums on agricultural areas in the south of the area.







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