

# **Future Trends of the Urban Systems in Developing Countries in View of a more Globalized World**

## **Abstract**

Globalization isn't just an economic phenomenon, it has a multidisciplinary impact. Urban systems in both developing and developed countries aren't a way from its effect. This paper tries to discuss the future trends of the urban system of Egypt as one of the developing countries in view of the accelerated globalization. For the past two decades, the author has a great concern with characteristics, nature, behavior, and future trends of the Egyptian urban system. This unique system is mainly characterized with high primacy and over spatial concentration degrees. Thus, it may provide a good chance to discuss both negative and positive impacts of globalization on the urban systems in developing countries, which is expected to be completely different from those in developed countries.

The Problem is, the historical existing urban system of Egypt isn't capable to cope with the new values and rapid changes of globalization. Regarding the future, there will be a question: is the Egyptian urban system is going to act as inward closed system, or it will be more open and outward as a part of the world wide system? The main goal of this paper is to reach a vision for the future trends of the Egyptian urban system in view of globalization. To achieve this goal, the following items will be discussed: first, Introduction to the problem of the urban systems in developing countries, second: Theoretical overview on the regional planning framework in the 21<sup>st</sup> century, third: Typology of the Egyptian urban system, fourth: International and national changes affecting the urban system of Egypt, fifth: A vision of the future trends of the urban system, of Egypt.

## **1/ Introduction**

### **1/1 The Urban System**

The urban system represents the frame within which all urban settlements are organized and interacted with each other regarding their sizes and functions. Any urban settlement couldn't be studied away from the urban system located in it. Thus, urban and regional planners were interested in studying this relationship. Friedman (1973)<sup>1</sup> and El-Shakhs (1984)<sup>2</sup> didn't separate the definition of a city away from the surrounding urban system. The city size is depending upon its location within the hierarchy of the urban system, B-Renaud (1981)<sup>3</sup>, while its function is defined according to this size and its role in the development process. Belsky (1983)<sup>4</sup>, Richardson (1977)<sup>5</sup> linked between the city size (as a function in its rank and function) and its role in developing its urban system and Rondinelli (1982)<sup>6</sup>, mentioned the value of a balanced urban system in providing efficient central service facilities. The interacted relationships and the functional hierarchy of the elements of the urban system make the sudden growth of any of its elements related mainly to the change of its rank, size and function within the urban system, rather than randomly happened, consequently it affects the other settlements.

### **1/ 2 Problem of the Urban Systems in Developing Countries**

Urban systems of developing countries are suffering from severe problems such as: rapid urbanization growth, continuous rural / urban migration, urban concentration in one or two primate cities. In addition to, lack of infrastructure networks in urban areas and economic problems due to the failure of development policies and the burden of external debts. During

the colonial era, investments were concentrated only in one or two cities (capital and main port) in developing countries. Consequently, unbalanced urban systems were the resultant of such biased policies. After dependence, developing countries had to choose between equity (low development rates) and economic growth (high urban concentration). Few of developing countries such as: Korea, Brazil and Yugoslavia have experienced polarization reversal and more balanced and dispersed urban systems, while the majority of developing countries still have to live with their unbalanced and over concentrated urban systems. Such urban systems can't cope with the rapid changes of the more globalize world of today.

### 1/ 3 Future Definitions in Globalization Era

The majority of future urban studies and researches concerned with definitions and interpretations appeared by the end of the past two decades such as: globalization, information, cyberspace, multimedia, infomedia, smart houses, intelligent cities, tele-cities ...etc. This paper concerns mainly with four definitions of high importance in formulating the planning thinking and theories in the globalization era, namely: time, place, city, and urban planning process. The interpretation of these elements is indicated in table (1), which summarizes the characteristics of the three urban waves stated by Toffler (1981)<sup>7</sup>.

Tab11 (1)- Time, place, city and urban planning across the three urban waves

Item	Agriculture Wave	Industrial Wave	Informative Wave
Time	Static	Dynamic	Exponential
Place	Natural Geography	Geo- Economic	Geo- Informative
City	Small & Medium Cities	Metropolis	Tele-cities
Urban Planning	Physical Planning	Strategic Planning	Sustainable, Open Ended & Multi Choice Planning

Source: Youssef, Mohsen (2000) "Evolutionary Trends of City Planning in the 21<sup>st</sup>", AI-Azhar Engineering Sixth International Conference, Cairo, (Sep.) . .

### 1/4 Factors Affecting the Future of the Urban System

Four main factors are expected to affect the future of the urban system, namely:

- **Future Population Growth:** By the year 2100, world population is expected to reach 7.6, 8.5 and 9.4 billions according to low, medium and high population forecasting. 95% of the population increase will be in developing countries.
- **Industrial Development:** Industrialization will be responsible for satisfying the needs of the increased population regarding the shrinking role agriculture sector. Information and processing industries will rapidly grow rather than extracting and mining industries<sup>8</sup>.
- **Improvement of Transportation Facilities:** The remarkable development in transportation facilities has highly affected the concept of place. The impact of distance as a variable in defining regions will disappear. Regions and sectors of cities will be strongly linked with each other with modern, fast and secured untraditional transportation facilities, while giant urban agglomeration based on highly efficient transportation system will appear (Transit Metropolis)<sup>9</sup>.
- **Communication Technology Revolution:** Communication and information revolution is the main feature of the 21st century. The sense of place and time are

dramatically changed due to this revolution which severely affects both way of life and urban population distribution. Urban settlements are expected to be more separated and segregated depending on the efficiency of remote sensing and communication facilities<sup>10</sup>.

## **2/ Theoretical Overview, “Regional Framework in the 21<sup>st</sup> Century”**

In order to present a future vision for an urban system, it may be important to review first main characteristics of the regional planning framework within the 21<sup>st</sup> century, then try to predict its implication on the urban system (the Egyptian case study). In view of the main principals and characteristics of the accelerated globalization, the trend is to support decentralization and direct strong linkages between local sites and world markets away from the supervision of main centers or political capitals. Moreover, growth-pole concept of development will disappear in favor to the multi-nuclei one. Within this theoretical overview, four main concepts will be discussed as follows:

- The interpretation of the new regionalism.
- Trends of primacy.
- Future of small and medium size cities.

### **2/1 The Interpretation of the New Regionalism**

A dramatic change has been occurred to the concept of regionalism. Central place theory, rank size distribution, divergence / convergence theory, and growth pole theories which had been formulated through out the past decades depending upon the hierarchy of the urban system and the dominance of the core on the peripheries are no more existing. As a direct impact of the accelerated globalization together with the rapid changes of communication and information, the relationships among urban settlement have been changed from the superiority of one big urban center to the partnership depending upon network system rather than hierarchical concept. This change in the regionalism concepts has its implications on decision making of development strategies. The main goal of new regionalism now, is to mitigate negative impacts may be caused due to physical variables (geographical location and economic processes) in order to minimize the development gap and encourage the innovative activities<sup>11</sup>.

### **2/2 Trends of Primacy**

Globalization is “in a way or another” the new shape of imperialism, regarding its exploitation for the resources of the developing countries and monopolizing of its markets. Urban polarization and primacy are expected to increase due to the concentration of the tools of globalization “business, financial and communication facilities” in one or two urban centers regardless of equity or stimulating polarization reversal. Large cities will continue growing, attracting immigrants and investments, and the gap between rural and urban or between primate cities (growth without growth)<sup>12</sup> and other urban centers will increase. On the other hand, only 20% of these large cities’ population can afford their life cost due to the increase of management costs of the over concentrated strategic functions related to financial and business activities in these large urban centers<sup>13</sup>.

### **2/3 Future of Small and Medium Size Cities**

The central administration structure based on the traditional hierarchical system (related to the industrialization era) is severely affected by the scientific achievements in communication and remote sensing. The shift from hierarchy to network pattern will allow small units to be directly linked to each other and to large units away from the mediator units, in brief the connection between base and top will be easier, faster and stronger. Consequently, small and medium cities especially in remote areas will have the chance to play an active role in

the urban system through out their direct interactions with large cities and other urban settlements. Future prospects are in the favor of small and medium cities specially that, those linked to world market such as: tourism cities, mining cities and those having relative competitive advantages in export facilities.

### 3/ Typology the Urban System of Egypt

The main characteristics of the Egyptian urban system could be summarized as follows:

**3/1 Urbanization Degree:** Urban population represents more than 40% of the total population, urbanization degree varies between 19 to 100% in Mynia and the four urban governorates. Urban growth rate reached to 1.8% while rural growth and total population growth rates reached to 2.3% and 2.1% between 1986 and 1996 respectively, Table (2).

Table (2)- Urbanization degree in Egypt (1927-1996).

Year	1996	1986	1976	1960	1947	1937	1927
Urbanization Degree	42.6	43.9	43.8	37	33	28	26

Source: CAPMAS<sup>14</sup>, Different population censuses (1927-1996).

**3/2 Classification of Urban Settlements:** classification of urban settlements is based mainly on administrative criteria, thus there is interference between the rural and urban settlements especially those of population size over 50000 inhabitants.

**3/3 Urban Hierarchy:** Due to the over concentration of population in Greater Cairo and Alexandria, none of the secondary cities could compete with them. Aside from these two primate cities there is no city of a population size over 1 million or even 500,000 population. Table (3) indicates the classification of urban settlements according to their size (1947-1996).

Table (3)- Urban hierarchy according to population size (1947-1996).

Population Size Group	Years					Remarks (1996)
	1947	1960	1976	1986	1996	
Over Than 1 000 000 Pop.	1	2	3	3	3	Cairo,Alex& Giza
500 000 –1000 000 Pop.	1	–	–	1	1	Shubra el-khimah
100 000 – 500 000 Pop.	5	12	17	20	24	
50 000 – 100 000 Pop.	9	8	18	31	51	
20 000 – 50 000 Pop.	32	46	67	80	75	
Less Than 20 000 Pop.	52	53	52	59	62	
Total number of cities	100	121	157	194	216	

Source: Author, depending on different official population censuses (1927-1996).

**3/4 Spatial Distribution of Urban Settlements:** Two main patterns of the spatial distribution of urban settlements could be identified, fig. (1): the linear pattern, along the Nile Valley, the north-coast and along the Red Sea coast, and the dispersed pattern, in the Nile Delta, Sinai and Western Desert.

**3/5 Rank Size Distribution:** The graphical theoretical presentation of the rank size distribution of the urban system of Egypt shows major deviation from the standard rank size distribution especially between the third to the tenth ranks, fig. (2).

**3/6 Primacy Indicators:** Primacy is the main feature of the Egyptian urban system. The over concentration of population, investments and facilities in Greater Cairo is very high relatively to not only other urban settlements but also to Alexandria, the second Primate City. Table (4) indicates the trend of primacy indicators, including: percentage of Greater Cairo population to total urban population, primacy ratio and primacy index.

Table (4), Primacy indicators of the Egyptian urban system

Year	1927	1937	1947	1960	1976	1986	1996
% Of Greater Cairo pop. To total urban pop.	29.6	30.9	35.0	39.8	43.3	42.3	40.3
Primacy Ratio	0.795	0.792	0.774	0.775	0.761	0.737	0.715
Primacy Index	1.97	2.02	2.32	2.57	3.00	3.07	2.98

Source: Author, depending on different official population censuses (1927-1996).

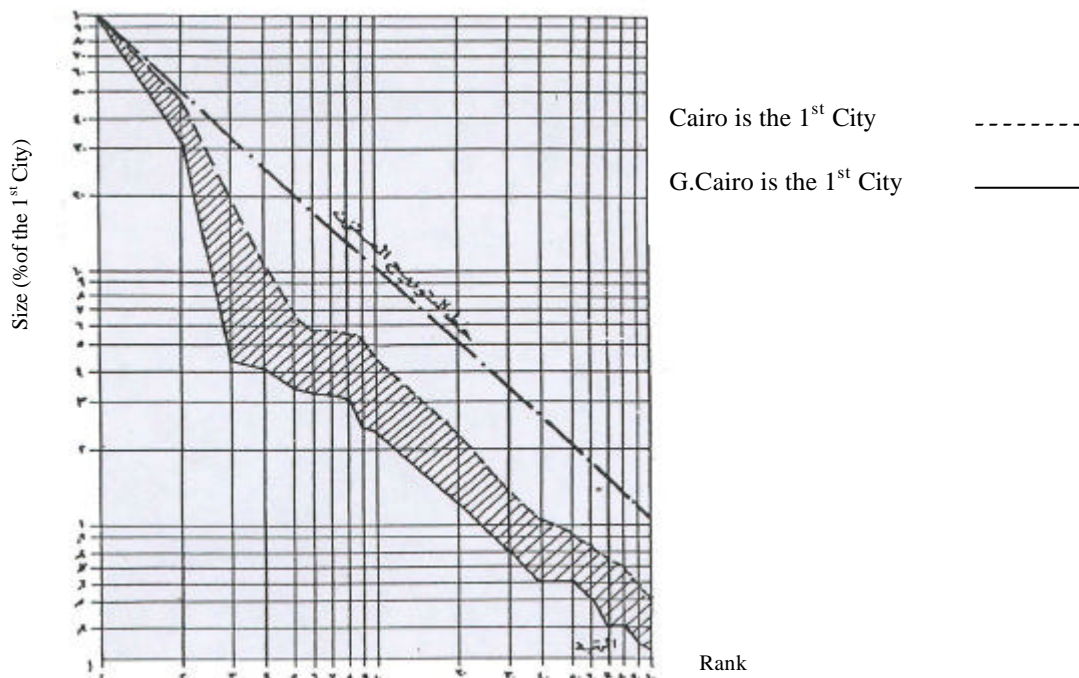


Fig. (1), Rank Size Distribution of the Urban System of Egypt (1996)

Source: The author

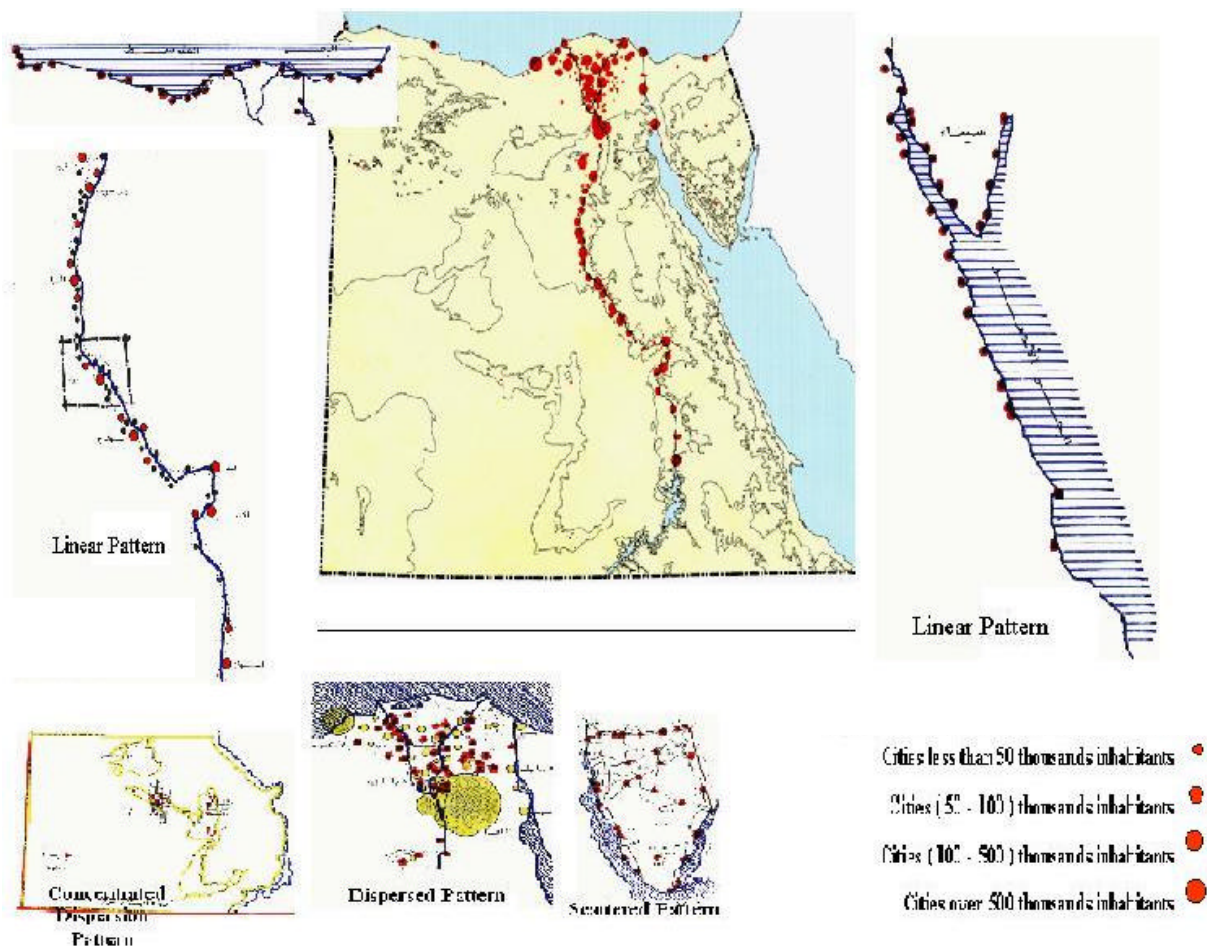


Fig. (2), Spatial distribution of the Egyptian Urban System (1996)  
Source : The author

## 4/ International and National Changes Affecting the Egyptian Urban System

Sharp, dramatic and rapid changes are taking place in our world these days; they need deep thinking and study not just astonishment and appreciation. These changes have political, economical, social and cultural impacts with their implications on the urban system horizontally (international level) and vertically (national level). World is politically fragmented, while economically agglomerated, which means the increase in the role of some cities and disappearance of others.

### 4/1 International Changes

**4/1/1 Globalization:** Aside from its too many definitions it could be briefly defined as: "The flow of capitals, information and labor cross the nationally defined borders"<sup>15</sup>. It is obvious that the effect of globalization on the world economy and its growth is enormous<sup>16</sup>. Main characteristics of globalization could be summarized as follows<sup>17</sup>:

- Market values based on supply and demand are the only accepted mechanism for national economies.

- Monopolizing the markets especially in developing countries through world trade agreement (GATT).
- Culture and income changes should be directed towards the favor of consumption increase.
- Decentralization of the production process through out several developing countries to reduce production cost.
- Developing and improving transportation and communication facilities.
- Establishing multinational companies to achieve high competitive advantage.
- Concentrating economic processes in certain locations highly connected with the outer world.
- The increase of the aware with sustainable development issues.
- Spreading economic resources and production on the regional and international levels and not limited to the national level only.

**4/1/2 Economic Tools of the World New System:** Regarding the previously mentioned principals and characteristics of globalization as the major active force for the world economy. This world economic system is based on three main elements, namely:

- I.N.F International Money Fund.
- W.B The World Bank
- W.T.O World Trade Organization & GAT, The General Agreement for Tariff & Trade.

#### **4/2 National / Local Changes**

Two main changes have taken place in Egypt during the past decades are expected to impact the urban system, namely:

**4/2/1 Privatization:** Egypt has been faced by severe economic problems especially after war 1973, a political decision was taken to co-operate with the W.B. in order to encourage private sector to play an effective role in the economic development, and gradually transfer the public sector into private one. The privatization as a government policy started seriously in 1993 since when, over 140 public sector companies and 16 factories were sold<sup>18</sup>.

**4/2/2 National Projects:** Due to the improvement of the Egyptian economy and in view of globalization economic tools and principals, where capitals and investments are freely moving cross borders. Egypt started after the 2<sup>nd</sup> Gulf War in establishing number of giant national projects as a long-term development plan depending upon both private sector and international investments. These projects could be divided into two main groups, Fig. (3), namely<sup>19</sup> :

- **The first Group (Upper Egypt & Western Desert Zone):** This group comprises seven projects namely: Toshkey, East of Ewainat, Darb El-Arbeen, Wadi El-Assuiti, Abu-Tartour, Iron of Aswan and Lake Nasser.
- **The Second Group, ( Suez Canal & North East zone):** It includes five projects, namely: west of Suez Gulf, East of Port-Said, Silicon Valley (Ismailia), Development of Sinai and El-Salam Canal.

#### 4/2/3 Examples of the national development Projects

##### Toshkey Project:

- Land reclamation of 500,000 – 1295000 fed.
- 18 new urban communities and 100 new rural settlement.
- 345000 new work opportunity.

##### East of Ewainat Project:

- Land reclamation of 200,000 fed.
- 41000 new work opportunity.

##### East Port-Said Project:

- 710,000,00 (m2) for different industrial activities.
- 202,000 new work opportunity.

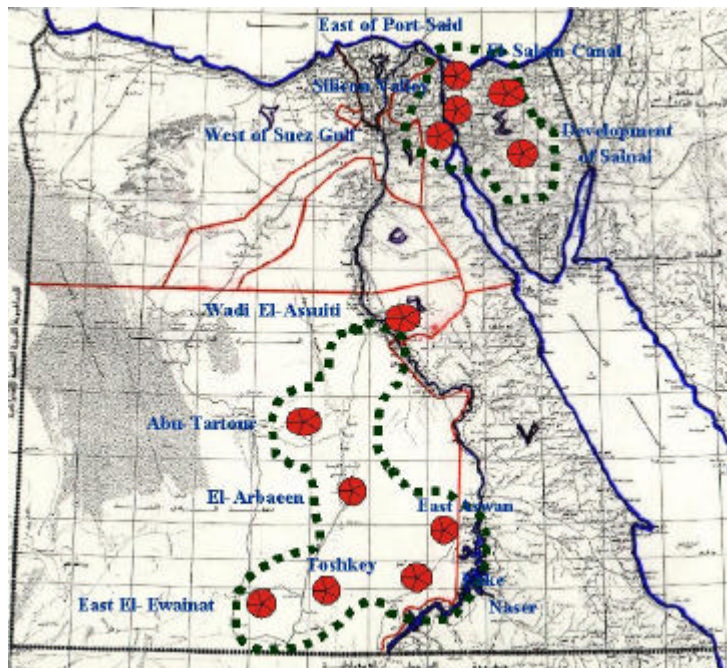


Fig. (3), National Development Projects in Egypt

Source: The author

## 5/ A vision of the Future Trends of the Urban System of Egypt

### 5/1 The Egyptian Urban System within the International Regional context:

According to the interpretation of the concept of the new regionalism (which started its applications on the European Union), political borders should be respected, while functions of countries have no limits'. The main functions of the urban system of Egypt in the world regional context could be summarized in the following:

- Cultural and civilization role, (regarding the historical roots of Egypt across the different ancient eras).



- Nodal function in both transportation and communication, (due to the unique site location).
- Political function, (the leading role among Arab, African and Islamic countries).

Thus, these functions should be strengthened and developed in an interactive way between the Egyptian urban system and surrounding regional systems, starting from Arab world, passing by Africa and Islamic world, reaching to the world system. Fig. (4) illustrates the world regional systems to be expected to interact with the Egyptian urban system. These world regional systems are:

- Arab World.
- Middle East.
- Africa.
- Islamic World.
- The Euro-Mediterranean.
- The European Union.
- Russia & Asia.
- USA & World.

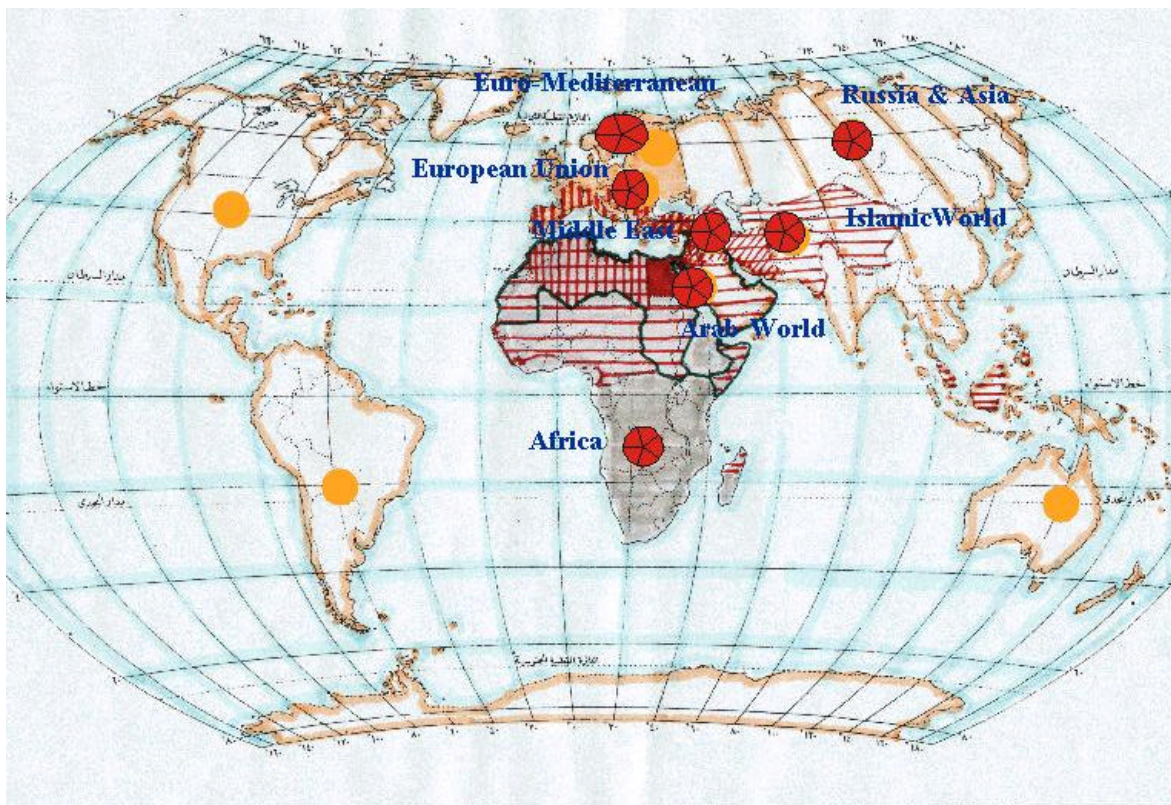


Fig. (4), The Egyptian Urban System within the Regional / International Context  
Source: The author

### 5/2 Urban Settlements Candidate for Growth in the 21<sup>st</sup> Century

Regarding the principals and bases of globalization and the world new system which imposing the urban systems, population size wouldn't be the major criterion in the rank distribution of the urban system. The active role on both regional and international levels may be the most important criterion, in view of the previously mentioned changes in the interpretation of the regional borders and urban hierarchy concepts. (El-Kholie, 2001)<sup>20</sup> in a research about the impact of globalization on the Egyptian urban system using the discrimination analysis technique, expected the following cities to play an active role in the future; namely: Cairo, Alex., Hurghada, Sharm El-Sheikh, 10<sup>th</sup> of Ramadan and 6<sup>th</sup> of

October. Moreover, other urban settlement may have the chance to participate effectively in the urban development specially those having relative advantages in tourism or exporting industries, having direct linkages with world and those exposed to development in remote area, in Sinai and Upper Egypt through the national projects. These urban centers expected to play an active role in the urban system of Egypt in the 21<sup>st</sup> century, could be summarized in the following namely:

- Cairo	Political, business, cultural center
- Alexandria	Business, trade, cultural center
- Port Said & Suez	Industrial, trade, transit center
- Ismaillia	Information & communication center
- Luxor & Aswan	International cultural tourism
- Hurghada & Mersa Alam	Entertainment tourism

- Sharm El-Sheikh  
International tourism & conference center
- Toshkie & EL-Ewainat  
Eco-agricultural products
- Al-Ariesh  
Middle East political center
- 10<sup>th</sup> of Ramadan & 6<sup>th</sup> of October Exported

Industrial Centers

### **5/3 Future Scenarios for the Urban System of Egypt**

In view of the accelerated globalization as the main international variable in 21<sup>st</sup> century, in addition to the previously mentioned changes on both local and national levels, two alternative scenarios for the future trend of the urban system in Egypt could be formulated as follows:

#### **5/3/1 The First Scenario, Over Concentration:**

The existing over concentration in the two primate cities (Cairo & Alex.) will increase regarding high population growth, economic depression, lack of successful plan for industrialization and export policies, in addition to the inability of executing national projects, Fig (5).

#### **Factors Affecting the Urban System**

- High population growth rate.
- Low industrial and export capabilities.
- Deterioration of infrastructure and communication networks.

#### **International and Local Variables**

- The dominance of globalization and the economic tools of the world new system.
- Slow down in privatization and economic development policies in addition to the stagnation of national projects.

#### **The Expected Growth Pattern**

- Increase in the primacy of Cairo and Alex.

- Minimum growth in secondary urban settlements.
- Limited success of new cities except those very near to Cairo (6<sup>th</sup> of October & 10<sup>th</sup> of Ramadan).
- No chance for appearing new urban communities in remote areas due to the inability to execute the national projects in Sinai and Upper Egypt.
- The expected growth pattern is high concentration in the following urban settlements: Greater Cairo, Alex., Suez, Luxor, Aswan, 6<sup>th</sup> of October, and 10<sup>th</sup> of Ramadan.

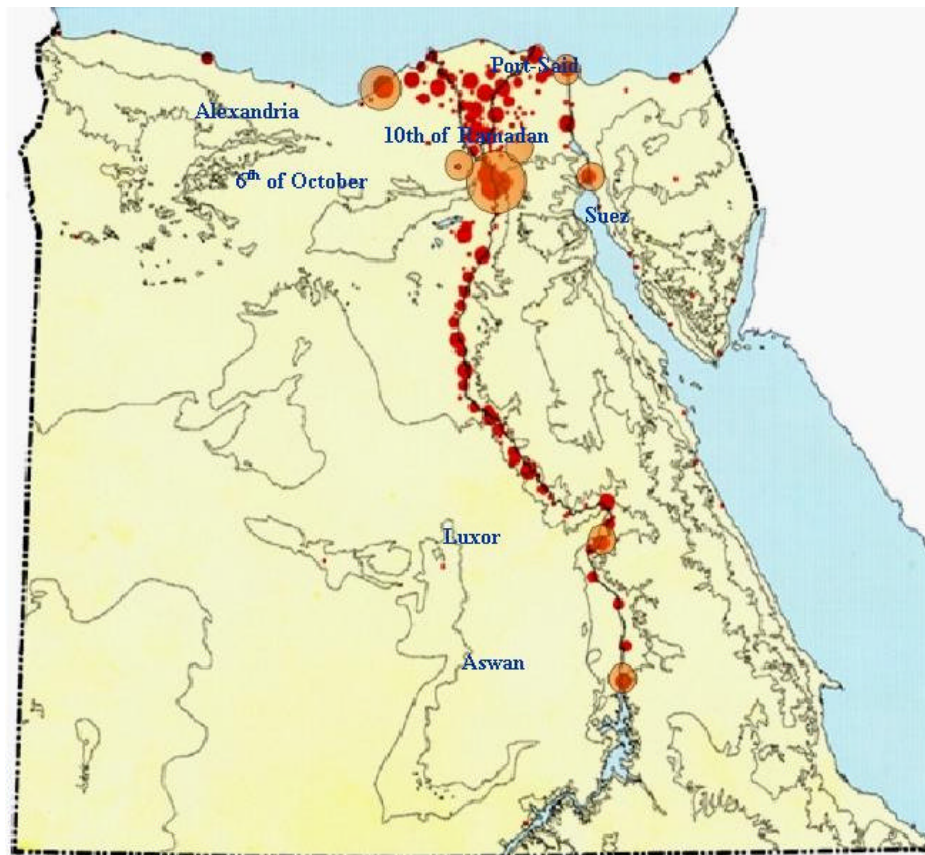


Fig. (5), The 1<sup>st</sup> Scenario, Over Concentration  
Source: The author

### 5/3/2 The second Scenario, Moderate Dispersion

This Scenario is more optimistic, depending upon the success of economic plans, reducing the population growth rate and achieving the goals of national projects and new cities policy, Fig. (6).

#### Factors Affecting the Urban System

- Controlling the population growth
- Increasing the competitive advantage of the Egyptian exported industries
- Improving infrastructure and communications networks to cope with international standards, which is positively reflected on the economic sectors

### International and Local Variables

- More cooperation between rich and poor countries in the form of subsidizing development programs, canceling of debts and technology transfer from developed to developing countries
- Success of privatization policies with minimum social losses
- Executing the national projects
- Achieving high economic growth rate

### Expected Growth Pattern

- Starting of the polarization reversal
- An active role for secondary urban settlements (Assuit, Mynia, Ekhmim, Mersa Matrouh)
- The success of new cities, more new urban settlements can be established (Sadat, Burg El-Arab, El-Obour and new twin cities)
- Rapid growth of tourism cities (Luxor, Aswan, Sharm El-Sheikh, Mersa Alam, Hurghada)
- The appearance of new urban communities in national projects remote areas (Toshkey, Ewinat, El-Arbaeen, Al-Ariesh...).

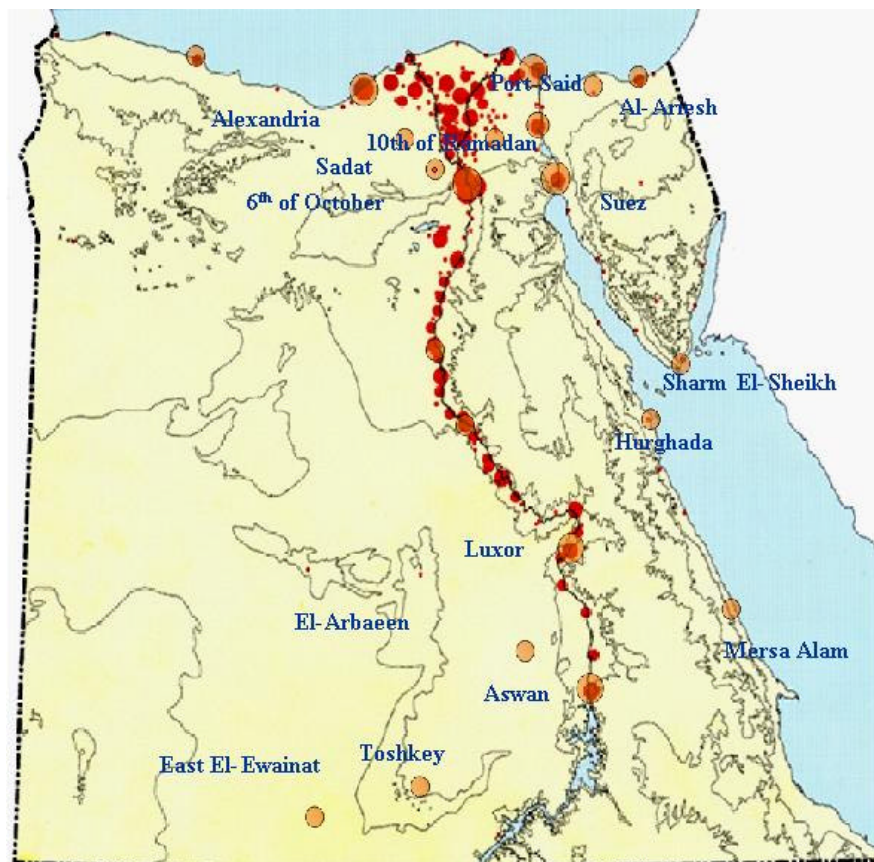


fig (8) : The 2<sup>nd</sup> Scenario <sup>3</sup>Moderate Dispersion  
Source: The author

## Conclusion:

Developing countries inherited a biased unbalanced urban system from the colonial era. After about 50 years from dependence these urban system is about to be disabled to cope with the rapid and dramatic changes in view of the globalization (the new face of imperialism). However, there is still a hope if these urban systems struggled to be more active and not to be isolated, through out more direct interactions with surrounding regional and international systems.

The rigid, historical and unbalanced urban system of Egypt have the chance to be moderate dispersed and make use of the positive impacts of globalization through out the direct contacts and interactions with surrounding regional systems depending on the comparative advantage specially in cultural, nodal and political functions. These functions are depending on the capabilities of Egypt itself, while economic advantage is more related to the world system.

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