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# Redefining the Secondary Egyptian Cities.

An Assessment Study for the Global and Local Definition to Achieve Balanced Development.

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#### **Abstract**

Secondary cities affect urban development for developed and developing countries, as they consider transitional zones for various activities between the rural settlements and primate cities. Therefore, the world has struggled to set criteria for defining the secondary cities understanding their intermediate role within the urban system. On the other side, the local experience has followed other criteria for determining the secondary Egyptian cities, which are entirely different from the global trend and may not achieve balanced development. Accordingly, this research attempts to assess the local definition of secondary cities by investigating to what extent they differ from the global terminology and how this difference affects them. The study firstly indicates the difference in defining the secondary cities from an international and national perspective. Subsequently, it discusses the effect of the local definition on achieving a physical hierarchy between cities. Then, it compares the ability of primate and secondary cities to achieve efficient resources mobilization equal to their population size and available opportunities; consequently, this comparison adds another layer of assessing the local definition. Finally, the research suggests a concept to redefine the secondary Egyptian cities based on the global defining to help the secondary Egyptian cities attain balanced development.

**Keywords:** Secondary cities, Intermediate role, Balanced Development.



#### 1. Introduction

The Secondary cities; the Second-Order cities, the Small and Mid-sized cities, the Intermediate/ Intermediary cities, and sometimes the word city is replaced by town are all synonyms describing the urban settlements, which are smaller than the Metropolis/ Millennium city. These cities are considered the infill elements within the urban system, and they facilitate the transition from the rural environment; which includes sources of production and raw materials like agriculture, to the Mega-Urbanized / Millennium/ Primate City that contains centres of power, trade, administration, and industry [1]. The importance of secondary cities seems on many levels.

On the global level, secondary cities formulate 49.46 % of the global urban population as expressed by United Cities and Local Governments- UCLG; when UCLG states their limit of the people to be less than one million people [2]. On the population level, the importance of secondary cities will increase because of increasing urbanization and the transformation from rural to urban [3]. Regionally, secondary cities play a vital role in Africa and Asia as near thirty-third of them exist in these two continents [3]. In Africa, secondary cities grow faster than primate cities, not only in terms of population growth rate but also in terms of spatial expansion [4]. Furthermore, urban settlements that are fewer than 300,000 dwellers accounted for 58% of Africa's urban growth between 2000 to 2010 [5]. Moving to Asia, the importance of secondary cities has its significance within it. The proportion of the population in urban areas with more than 100,000 people increased from approximately 18 percent to more than 25 percent from 2000 to 2010 [6], while the most recognizable degree of urban poverty in East Asia and Pacific- EAP region is located in its secondary cities [7].

Finally, on the local level, Egypt Census- 2017 states that 42.9% of the population live in urban areas, and 54.1% of them live in secondary cities, while 45.9% of the population concentrate in Cairo, Giza, and Alexandria [8]. Therefore, it is essential to care about the role of secondary cities in achieving integrated development as it fosters this process inside the urban system of any country. The recognition of this role comes from the correct definition of the secondary cities and clarifying their characteristics according to formerly tested criteria, which the global definition express.

## 2. Research Problem and Methodology

It is too hard to globally generalize criteria for defining the secondary city as its influential factors differ from place to place [9]. Although the difference may be in the population size or the organizational procedures that administratively control the city, there is a standard agreement about its

intermediate role between rural and urban settlements within the urban system. Consequently, it is essential to consider this role in defining these cities. It deals with these cities interdisciplinary and concerns other influential dimensions, like the economic and social ones [10]. Nevertheless, secondary Egyptian cities are defined through other criteria that do not consider this role. This ignorance may affect the national development plans regarding its performance. Some global indices of development implementation, such as the SDG Index, describe this performance as descending, although Egypt achieves a moderately improving performance in the physical issues [11]. Therefore, the first step to improving national development plans' performance is to review the utilized concepts and terminologies to provide an integrated understanding of the national problems and accordingly propose efficient solutions for them, which is discussed through this research by redefining the secondary Egyptian cities.

Accordingly, the research adopts the descriptive method in investigating the definition of secondary cities through both the global and local levels. Subsequently, it adopts an analytical comparison-based approach to trace the development disparity between the primate and secondary Egyptian cities regarding their hierarchy and available resources contributing to the comprehensive development. Finally, it presents an amendment for defining the secondary Egyptian cities to improve their developmental performance.

#### 3. Literature Review

Defining the secondary cities is a cumulative work contributed by the urbanists through both centuries, 20<sup>th</sup> and 21<sup>st</sup>; over time, they added many layers to deepen cities' understanding and detect their properties. From the 1910s till the mid-1950s, urbanists had set many rudimentary criteria to figure out the definition of the secondary city. They calculated the population size through various mathematical formulas by Felix Auerbach [12]. Besides, they also utilized the area coverage by Mark Jefferson [13], the location by Walter Christaller [14], and the cities' functions by George Zipf [15]. Although all these trials were scientifically argued by their authors, they did not give an intensive explanation for defining the secondary cities. These explanations were more generic and did not give specific criteria to encourage their official adoption by any governmental authority [16]. By 1955, Kingsley Davis proposed clear size-based measures to define the secondary cities all over the world's regions through population size and stated their size from 100 000 to 500 000 people [17]. As this size-



based definition had proved its validity for a long time, it was adopted internationally by UN-Habitat in 1996 for defining the secondary cities based on their sizes [18].

Later, secondary cities were discussed through spatial-functional-based concepts in parallel with their population size to achieve multidimensional interpretations of their characteristics. For example, Salah El-Shakhs addressed the relationship between different components of the urban planning system, starting from the primate cities to the secondary cities, which are stated as transitional zones for handling resources and economies, and finally reaching the rural settlement [19]. Also, Dennis Rondinelli combined the development of the single secondary city with the other cross-influential dynamics coming from the surrounding settlements, like the political changes, economic forces, and administrative procedures [20].

The secondary Egyptian cities are also discussed in terms of definition. The first trial to define the secondary Egyptian cities was in the 1960s by Janet Abu-Lughod, as she classified the Egyptian urban settlements based on the size as shown in Table 1.

Table 1. Janet Abu-Lughod's Classification for the Egyptian Urban Settlements [21].

		SECONDARY CITIES			
CITY PRIMAT		LARGE	SMALL CITIES		
RANK	CITIES	CITIES	SMALL	LARGE	SMALL
		CITIES	CITIES	TOWNS	TOWNS
POPULATION	≤ 300.000 People	From 299.999 To 100.000 People	From 99.999 To 50.000 People	From 49.999 To 30.000 People	From 29.999 To 20.000 People

Subsequently, in the 1980s, Faisal Abel Salam suggested other classifications for these cities. Firstly, based on Egypt Census-1976, he determined the secondary cities to include population size from 20.000 inhabitants to 100.000 [22]. Then, he depended on Egypt Census-1986 and The Functional Classification of Egyptian Cities to state three size-based categories [23]. These categories are large-sized cities with more than 80.000 inhabitants, medium-sized cities with 50.000 to 80.000 people, and small-sized cities with less than 50.000 people.

#### 4. Difference between Global and Local Definition of Secondary Cities.

## 4.1. Global Definition of Secondary Cities

As secondary cities are discussed, they face different social, economic, legislative, and administrative; accordingly, many disparities appear between countries to unify a standard definition. The formerly mentioned factors do not affect equally because of the difference in potentials and urban challenges between each country [24]. Accordingly, disagreement appeared between researchers, practitioners, and politicians to generalize a standard size-based definition of the secondary cities, forcing every country to set its local criteria to define its secondary cities based on population size [2], Table 2.

Table 2. The Variation of Secondary Cities' Population through different Countries and International Organizations, "By Researcher."

Country/ Organization	Secondary City Population
World Bank	From 20,000 to 1000,000 inhabitants [25].
European Union	From 20,000 to 500,000 inhabitants [2].
North America	From 20,000 to 500,000 inhabitants [2].
South-Eastern Asian Cities	From 100,000 to 3000,000 inhabitants [9].
China	From 500,00 to 3000,000 inhabitants [1].
India	From 100,000 to 3000,000 inhabitants [26].
Pakistan	From 25,00 to 100,000 inhabitants [2].
Finland	From 20,000 to 200,000 inhabitants [27].
Italy	From 20,000 to 500,000 inhabitants [28].
Spain	From 50,000 to 250,000 inhabitants [29].
Ethiopia	Up to 200,000 inhabitants [1].
Argentina	From 50,000 to 100,000 inhabitants [2].

Although secondary cities globally differ in stating standard size-based definition, they agree to consider in their definition their morphological, administrative, and functional intermediate role between the surrounding urban settlements, as shown in Table3.



Table 3. The Morphological, Administrative, and Functional Intermediate Role of the Secondary Cities for their surrounding settlements [30].

	Approach	Classification	Distinctive Characteristics	Criteria
A m si:	Iorphological  Built-up area of inimum population ze nd remarkable eature of urbanization.	Urban Settlement	The concentration of buildings and	<ul> <li>Compact build-up area.</li> <li>Distance between settlements and buildings.</li> <li>Population.</li> <li>The density of the urban area.</li> </ul>
A Settlement with urban administrative status.		Urban Municipality	with urban administrative duties	<ul><li>Local Government.</li><li>Administrative</li><li>Functions.</li><li>Historical</li><li>Attribution.</li></ul>
Functional	An Urban settlement (municipality) with a concentration of jobs, services, and other urban functions for its surrounding rural settlements.		due to the concentration of jobs and other Urban functions	<ul> <li>Population.</li> <li>Jobs.</li> <li>Other Urban Function.</li> <li>Commuting.</li> <li>Centrality.</li> </ul>
	Surrounding Cities The relationship through a larger area, with a functional relationship with one or more urban Cores till the primate city.	Transitional Urban Centre/ Urban Core.	Gravitational area of jobs, services,	<ul> <li>Availability and Access to Jobs and Services.</li> <li>Networks</li> <li>of Movement to the Location of Workplaces and Services</li> </ul>

#### 4.2. Egyptian Definition of Secondary Cities

Secondary Egyptian cities started to be spotted in the 1960s due to the population increase, which transformed many rural zones into urbanized ones [22]. Consequently, they have been defined through two approaches: the administrative approach and the local approach.

# 4.2.1. The Administrative Approach

The administrative approach is the central controller of defining the secondary Egyptian cities. It has determined the administrative subdivisions of all Egyptian cities since law number 124 of local government was released at the beginning of the 1960s to organize the local administration for all settlements.

The law had administratively divided Egypt into governorates that included many cities and villages. From this date, all rules of the local government have classified the Egyptian cities based on [23]:

- Security, according to the location of the police station in each city.
- Administrative Demarcation, according to each governorate's ownership of agricultural lands.
- Covered areas with the basic food and goods offered by the state (colloquially Al-Tamween).

Except for primate cities, local government laws have divided the Egyptian urban and rural settlements. Starting with the rural settlements, they hierarchically divide into Naga'a, Ezbet, Kafr, Subordinate Villages, and the Main Villages. Moving to the urban settlements, they split into Governorate Second-Tier Cities, Governorate First-Tier Cities- Markaz, and finally the Capital City of the Governorate, which is also a Markaz in the governorate's administrative subdivision. Also, the laws have determined the administrative responsibilities of the local council of each rural and urban settlement and how each local council connects with the other ones [23], Figure 1.



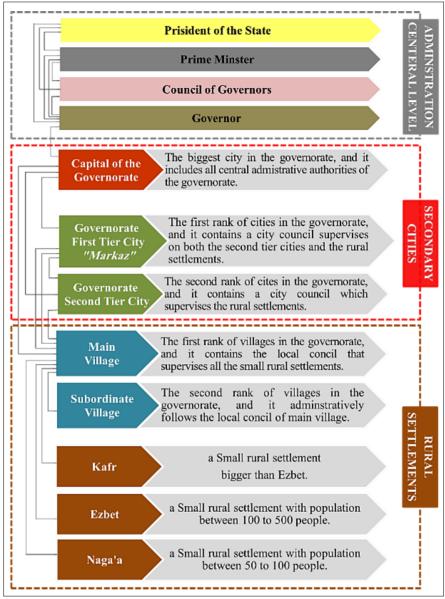


Figure 1. The Administrative Subdivision of Egyptian Rural and Urban Settlement, and the relationship between them, "by Researcher".

# 4.2.2. The Size-based Approach

Generally, there are no accredited size-based classifications or definitions for the secondary Egyptian cities from any official authorities interested in Egyptian urbanism. All size-based categories were through research works or were adopted in specific projects but not officially accredited or widely applied. For example, The Academy of Scientific Research and Technology- ASRT in the 2000s, depending on Egypt Census-1996 and classified the secondary Egyptian cities based on population size to three categories [31]:

- a) Large-sized Cities which were between 100.00 to 500.000 inhabitants.
- b) Medium-sized Cities which were between 50.000 to 100.000 inhabitants.
- c) Small-sized Cities which were less than 50.000 inhabitants.

ASRT's classification has determined 28 cities in category (a), which included all capital cities of the governorates, while the other cities that were specified in categories (b) and (c) were 128 cities. Also, in the same decade, UN-Habitat Egypt modified this classification through their project Strategic Urban Plans for Small Cities. It changed the small-sized cities classification to be between 30.000 to 60.0000 inhabitants [32].

#### 5. Assessing the Definition of Egyptian Secondary Cities

According to the discussion of defining locally and globally the secondary cities, the main problem of defining Egyptian secondary is the non-referring to their intermediate role within their surrounding context. On the contrary, the definition only considers the city a singular unit within the governorate and does not even refer to its relationship with other cities. Accordingly, the secondary Egyptian towns have become developmentally imbalanced, as they achieve the spatial non-hierarchy when comparing to each other and the disparity in resources mobilization compared to the primate cities.

#### 5.1. Imbalance due to the Spatial Non-Hierarchy

Based on Egypt Census 2017 [8], secondary cities in some governates occupy first-tier city rank-Markaz, and they are not equal in size to each other. Besides, some cities in the same governorate are bigger and occupy second-tier city rank. Consequently, this status of inhomogeneity in ranking and size proves the efficiency of the Egyptian secondary city's definition. Taking Al- Qalubiya governorate as an example, Kafr Shukor city includes a population of 29090 people, and it is a first-tier city- Markaz. On the other side, Toukh is also a Markaz with a population of 49433 people, and Qaha city is its second-tier city with a population of 34048 people. Also, in Al- Menofia governorate, Al- Bagour city is a Markaz with a population of 56727 people, while Menouf city is also a Markaz with a population of 113262 people, and city of Sers Al-Layan is its second-tier city with a population of 67607 people.



#### 5.2. Imbalance due to the Disparity in Resources Mobilization

In the case of comparing between Egyptian primate and secondary cities, Cairo, Giza, and Alexandria occupy %45.9 of the total population of Egyptian urbanism according to Egypt Census 2017 [8], and the rest of the percentages are distributed in the other regions that include different secondary cities. These percentages generally refer to some problems inside Egyptian urbanism like centralization and misdistribution for opportunities. However, it can also be used to examine the economic efficiency of the Egyptian urban system by tracing concurrence between the ratios of economic opportunities and the percentages of the urban population of the primate cities and the other regions, Figure 2.

In the case of economic comparison between the primate cities and the other regions, there is a disparity between their ratio of the urban population and the National Gross Domestic Production- GDP. According to the Ministry of Planning and Economic Development-MPED [33], the three primate cities have 55% of the GDP, although 46% of the urban population. On the other side, the different regions try to balance their ratio of GDP and their population size. For example, the Delta Region has 14% of the urban population. In comparison, it shares 13% of the GDP, and also Assiut Region has 3% of the urban population while it shares 2% of the GDP, Figure 3.

The situation becomes more dramatic for the secondary cities when comparing their ratio of presented opportunities and the urban population to the primate cities. According to the data of business services by the MPED [34], Figure 4 demonstrates the possession of three primate cities, 90% of the businessmen services, while the other regions have low percentages of this domain. This disparity signifies the intensity of investment within the primate cities is more intensive than the other region, although most of the resources exist in the different regions that include all the secondary cities. Also, this severe disproportion proves a non-hierarchical and ineffective communication between the primate cities and other regions. Accordingly, it makes the ability to share benefits between the primate and second cities very weak, which negatively affects the ability of investment within the other regions.

Finally, according to MPED data for the amount of trade [34], Figure 5 demonstrates the possession of the primate cities 71% retail and wholesale trade, while the other regions have low percentages of this domain in comparing their urban population to the primate. This difference in the amount of trade clarifies that the primate cities enjoy more efficient economic conditions and resources mobilization than the secondary cities, although the secondary cities in the other regions have more advantages for flourishing their economies than the primate ones. For example, the Delta Region has 14% of the urban population and the most fertile agricultural lands in Egypt; the Suez Canal Region has 10% of the urban

population and is the most globally crucial navigational lane. However, the first region shares 10 % of the trade of retail and wholesale, while the second shares 5% of the same item.

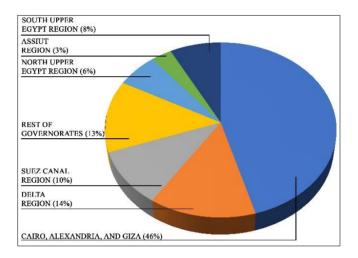


Figure 2. The Ratio of urban population distribution between the primate cities and other regions" Based on Egypt Census 2017".

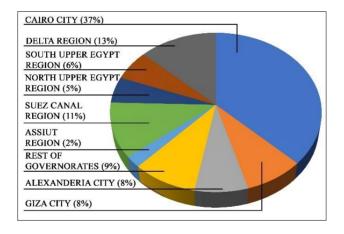


Figure 3. The Ratio of GDP sharing between the primate cities and the other regions "Based on the data of Ministry of Planning and Economic Development- MPED".



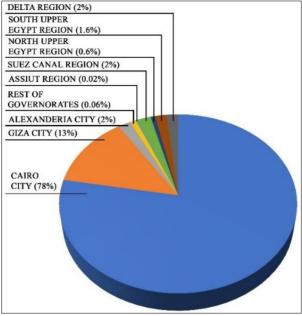


Figure 4. The Ratio of Businessmen Services between the primate cities and other regions "Based on the data of Ministry of Planning and Economic Development- MPED".

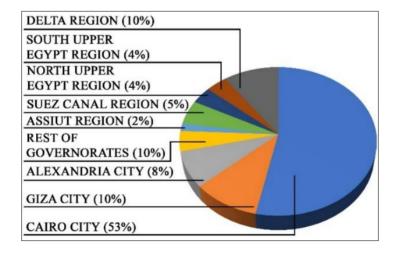


Figure 5. The Ratio of Retail and Wholesale Trade between the primate cities and the other regions "Based on the data of Ministry of Planning and Economic Development-MPED".

#### 6. Redefining the Egyptian Secondary Cities

The deficiency of economic forces for the secondary Egyptian cities reflects their suffering from the less understanding of their role, despite possessing many developmental potentials such as natural resources and population. Also, this deficiency reflects the ineffective functionalization of their role within an urban system that manages and organizes this role. Accordingly, the secondary Egyptian cities need to change their definition to be based on their intermediate role to improve their ability of resources mobilization. And like the global definition, the success of defining the secondary Egyptian cities depends on the integrated dealing with the secondary cities through connecting them with various scales, starting from the primate city scale to the small village scale.

Furthermore, embedding their intermediate characteristics, like population, urban planning, economic forces, and local administration within this integrated relationship to help them achieve a satisfying degree of urban development inside them, as shown in Figure 6.

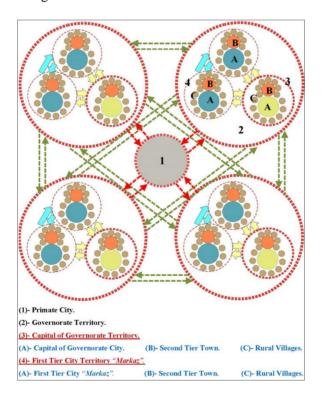


Figure 6. A proposed concept for redefining the Egyptian secondary cities according to the cross-interrelationships between the secondary cities and the different settlements, as same it is stated by global definition of Secondary cities "By Researcher".



#### 7. Conclusion

Today, while the primate cities are globally on the centre point of the urban development process, secondary cities are also considered the backbone of urban development because of their functional importance and population. Therefore, determining an integrated definition for the secondary cities- challenging to generalize globally- is essential for achieving efficient urban development. It focuses on understanding the locational and functional role of the cities within their surrounding environments. Unlike the integrated global concept of defining secondary cities, the definition of secondary cities is inaccurate as it represents the cities administratively. In turn, it negatively affects the spatial hierarchy of the secondary cities within their urban system, and it does not provide an efficient resources mobilization for them. Therefore, the secondary Egyptian cities need to modify their adopted methodology of definition according to the globally adopted standards to guarantee to achieve balanced urban development within them.

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