

**The impact of city functions on the formulation of community service programs within the preparation of strategic plans for Egyptian cities
Case study: Cities of South Sinai Governorate**

Shimaa A. Mohamed¹ and Hossam Aldeen S. Amin²
Faculty of Regional and Urban Planning- Cairo University
1- Shimaawahab@furp.cu.edu.eg
2- hossameldinamer@gmail.com

Received: July 15,2024; September 22, 2024; Online: September 22, 2024

ABSTRACT

The importance of studying services lies in their direct connection to the lives of residents from social, environmental, and economic perspectives. Services are also among the most crucial elements of residential areas, as these areas derive their significance and efficiency from the availability of services and their ability to meet the needs of residents and economic activities. The nature and scale of these services vary depending on the size and type of the area, as well as the requirements of the population, which differ from one region to another. These needs are also influenced by the economic status, social behaviors, habits, and cultural level of the residents.

Services are one of the key components of urban settlements, clearly reflected in land-use maps, due to the large spaces they occupy compared to other uses and the necessity of their widespread distribution across any urban mass. In Egypt, strategic urban development plans have adopted a strategic planning approach, which includes proposals for service programs. The methodology used in studying services within these strategic plans relies on three main axes for proposing future service programs in cities: numerical standards, geographic distances, and administrative levels. These standards are unified across all settlements, neglecting certain other factors, such as the economic function of these settlements. This is the focus of this research, which aims to measure the impact of the economic function of settlements on the formulation of future service programs, thus proposing a developed framework for studying service programs within the preparation of strategic plans for Egyptian cities.

Keywords: Service Programs - Egyptian Cities - Strategic Plans - Economic Function - Functional Centrality - South Sinai.

INTRODUCTION

A city's growth progresses through successive stages influenced by the social and economic characteristics of its population, as well as the behavioral and cultural values of the surrounding society. This growth reflects and is supported by the administrative and organizational capacities of the institutions responsible for the city's development. Services within a city are a crucial component, growing in stages alongside residential areas, road networks, public utilities, and population

flows, gradually meeting the increasing needs of residents (Bandak, 2019)

Various factors influence the formulation of community service programs during the preparation of urban development plans for cities and their regional scopes. These factors include population, social, environmental, urban, and economic considerations, which implicitly include the economic function of urban settlements. The research aims to measure the impact of the economic

function on service programs, specifically focusing on the cities of South Sinai, a governorate in Egypt.

Research Problem

The current research problem lies in the gap between the criteria used for determining local and regional services in urban communities and the specific spatial characteristics of each settlement. Currently, Egypt relies solely on numerical standards to calculate service needs, as proposed by ministries such as the Ministry of Education, Ministry of Health, and Ministry of Housing. The general methodology used in the strategic urban plans (as outlined in the terms of reference for preparing these plans) depends only on quantitative variables. These include the relationship between services and the number of residents or beneficiaries, geographic distances, and the available space within urban areas. However, it overlooks other key factors that influence service provision, such as the functions of urban settlements, levels of urban development, spatial centrality, and connectivity through transportation networks (Bandak, 2019; GOPP, 2021; GOPP, 2024)

Research goal

This study aims to develop a proposed framework for studying public service programs during the preparation of strategic plans for Egyptian cities. This framework will evaluate the impact of the economic functions of cities on the formulation of their future service programs, with a specific application to the cities of South Sinai governorate.

By focusing on South Sinai's cities, the study seeks to understand how the unique economic roles of these urban areas influence the planning and provision of public services. The insights gained will contribute to more effective and tailored service programs, enhancing the overall

development and quality of life in these communities.

1 Theoretical framework

1.1 Literature review of public services

The concept of public services has been studied for a long time, with notable contributions such as Léon Duguit's work in 1923. Duguit emphasized that public services are essential to social life, so vital that they cannot be interrupted. He noted that while the nature and number of services may vary depending on the country and time, the role of the state in providing them is increasingly important. Other institutions, such as the United Nations ESCWA, define public services as those available to all individuals regardless of their demographic differences, such as transportation, education, healthcare, and housing. (Duguit, 1923; Spicker, 2024; Moselhy, 2003)

In Egypt, public services are defined as activities provided by society for its members, including education, health, culture, and religious services. These services are part of the strategic plans for cities and villages, forming essential parts of urban infrastructure. There are two types of services: productive services, which support economic institutions, and social services, which cater to the needs of residential neighborhoods. These two types often overlap in planning studies, making it difficult to separate them. (Bandak, 2019)

Public services aim to improve the quality of life for individuals and society by providing non-material goods, such as skills and expertise, to the population. These services are not exclusively provided by government institutions; private organizations and civil society can also play a role. This idea is supported by reports like the World Bank's 1997 development report, which highlighted the importance of state-provided essential services but also recognized the value of involving markets and civil society (World Bank, 1997)

The 1996 UN Habitat Agenda further emphasized the need for public services to

The impact of city functions on the formulation of community service programs within the preparation of strategic plans for Egyptian cities- Case study: Cities of South Sinai Governorate

be managed transparently and accountably, encouraging the private sector's participation and environmentally sound technologies. It also advocated partnerships between government, private organizations, and community groups to ensure the effective provision and maintenance of public services. (United Nations Habitat, 1996)

Previous literature on public service studies has varied in focus, with some researchers concentrating on educational services, others on health, recreational, or administrative services, and many examining the distribution of various other services. Despite this diversity, the common goal has been to achieve a fair distribution of services within cities, ensuring accessibility for the maximum number of residents, regardless of their social or economic status. Including studies that focused on evaluating entertainment services sites, assessing their spatial allocation and the factors influencing these distributions. (Al-Jarallah, 1995; Al-Shahabi, 2023; Mahmoud, 2015)

Some studies have focused on developing models for determining optimal service regionalization within cities. These models aim to identify the best spatial units in which services can be efficiently provided to urban residents (Al-Jarallah, 1995; Al-Shahabi, 2023; Mahmoud, 2015)

Key insights from the literature include the role of public services in meeting the basic needs of all citizens, regardless of financial capability, and the responsibility of the state to provide these services. Public services have evolved with societal needs, requiring high standards of quality, modernization, and value. They reflect a society's economic, social, and legislative capacities and play a critical role in sustainable urban development. Effective strategic planning, participatory decision-making, and integrated service localization policies are essential for improving service distribution and enhancing urban living conditions.

1.1.1 Services classification

Services can be classified using various approaches, and some of the key classifications (Fig. 2) (Moselhy, 2003; GOPP, 2021).

Sector-Based Classification is one of the most common ways to classify economic activities, with services being considered part of the tertiary sector. There has been some debate over whether activities like construction, gas, water, and electricity should be included as service activities.

1. Consumer vs. Producer Services:

This classification depends on the output of service activities, distinguishing between services intended for producers (like durable and non-durable goods) and those meant for consumers. Durable services, such as educational services, provide long-term benefits, while non-durable services offer short-term value.

2. Local vs. Non-Local Services:

Services can also be divided into those that meet local population needs and those aimed at international markets, reflecting the scale and target of service provision.

3. Public vs. Private Sector Services:

Market services (private sector) operate based on market forces like supply, demand, and competition, whereas non-market services (public sector) are often provided free or at a subsidized rate, especially in developing countries. These include essential services like healthcare and education.

4. Infrastructure Services:

These are fundamental services provided and supervised by the state, crucial for societal well-being, such as water supply, sewage, electricity, and communication networks.

5. Supreme Services: These include security, administrative, and educational services, considered sovereign because of their role in overseeing other service sectors and their responsibility for

shaping citizens' capabilities and rights, such as education for all.

6. Economic and Human Welfare Services: These encompass markets, retail services,

healthcare, and social services, all aimed at improving human welfare and living standards.

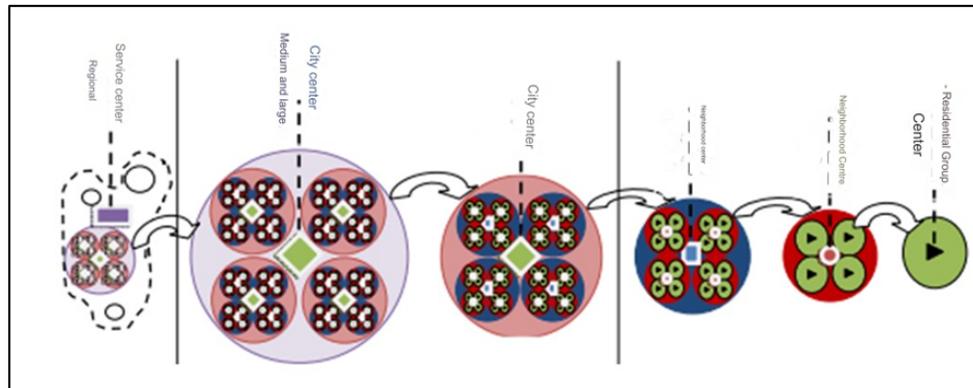


Fig. 1. Classification in the Egyptian case is the classification according to the urban level. Source: (GOPP, 2021)

In Egypt, services are classified based on functional and size-based criteria. The functional dimension helps in understanding what sectoral needs each service addresses, while the size dimension categorizes services within the overall service structure. According to the General Organization for Urban Planning (2014), Egypt's services are divided into educational, healthcare, cultural, social, youth, sports, recreational, administrative, and other services like security and commerce.

There is another approach to classification in the Egyptian case, which is classification according to level, as in the following figure:

1.1.2 Principles and policies of service distribution

The foundations and policies for the distribution of services have been the subject of numerous studies, particularly in terms of planning standards and the factors

influencing the calculation and determination of service needs at local and regional levels. One such example is a study from Saudi Arabia that proposed technical standards for determining the number, size, and impact of public services. The study emphasized providing an adequate urban environment without underestimating or overestimating service needs. It suggested setting minimum and maximum service provisions, considering them as relative and changeable measures that could shift based on future influences. Service requirements were determined based on population numbers, considering the urban planning unit (neighborhood or city) and covering various sectors such as education, healthcare, and entertainment (Ministry of Municipal and Rural Affairs, 2016; GOPP, 2021)

In Egypt, the General Organization for Urban Planning (2014) set forth guidelines for service distribution, aligning them with the state's general policy for providing services at acceptable technical standards (Fig. 3).

The impact of city functions on the formulation of community service programs within the preparation of strategic plans for Egyptian cities- Case study: Cities of South Sinai Governorate



Fig. 2. Principles of service distribution. Source: Authors from <https://www.gov.ie/>

The guidelines aim to maximize the benefit from the geographic and quantitative distribution of existing services, ensuring their spatial integration and alignment with strategic development plans. They also propose setting minimum population thresholds for each type of service, ensuring that service provision corresponds with the phased growth of urban communities and avoiding the establishment of economically unsustainable services. Moreover, service locations should be central to their planning areas and integrated with surrounding land uses, in accordance with strategic plans at various levels.

Additionally, the guidelines emphasize optimal land use for services within approved urban boundaries to maximize economic returns based on the land's relative value. Factors influencing the design and location of services were also outlined, with a specific example of educational services. However, these studies often neglect the economic dimension, particularly the economic role of urban communities in shaping service programs. Incorporating economic

considerations would optimize development returns by aligning service provision with the needs of economic activities, thus supporting broader developmental goals.

1.1.3 Economic Functions of Cities:

The concept of "city functions" originated in urban geography, borrowing from the term "function" in physiology, which views cities as living organisms. This term, first used by Ratzel in 1891, emphasizes that the function of a city is the foundation of its existence. City functions can be divided into two categories: internal functions that serve the city's inhabitants within its urban boundaries and external functions that serve the surrounding region. Different attempts have been made to classify cities based on their primary functions, with notable classifications made by Chuney Harris and Edward Ulman in 1943. They categorized cities into central cities providing comprehensive services, transportation cities located at major transport hubs, and specialized cities focusing on industries like administration,

education, and mining (Al Shawawra, 2012)

Despite these classifications, there is a critique that many cities could fall under multiple categories, particularly specialized cities. For instance, a city could be considered both a transportation and industrial hub if it has a strategic location that supports the transportation of raw materials and labor while also marketing its products.

1.1.4 Functional Classification of Cities:

Classifying cities based on their functions is a complex task for geographers, as no city exclusively performs one function. All cities are multi-functional, but it is possible to identify a dominant function, although this can change over time due to economic and social shifts. For example, old military cities might transform into tourist destinations as their defense functions decline. Various classifications exist, such as mining, industrial, transport, commercial, administrative, and cultural cities, among others (Al-Jarallah, 1995; Al Shawawra, 2012; Aljabri, 2011; Soliman, 2018; United Nations Human Settlements Programme, 2007)

A notable method by Howard Nelson used the percentage of the workforce in different sectors to classify American cities. For example, cities were labeled as industrial or transport hubs based on how their employment figures compared to national averages. Similarly, Harris used statistical data to categorize cities, and his classifications ranged from industrial cities to those focused on wholesale trade. However, these methods have limitations, as certain cities' importance, like New York's financial significance, might not be fully captured by employment statistics alone (Ghadhban, 2023)

1.1.5 Geography of Services from an Economic Perspective:

Economic activities are categorized into three main sectors: primary, secondary, and tertiary. The primary sector includes activities like agriculture, fishing, mining, and quarrying, where humans interact directly with natural resources. The secondary sector, or the industrial sector, involves transforming raw materials from the primary sector into new products through processes like manufacturing, construction, and energy production. The service or tertiary sector, while present in primary and secondary activities, contributes more significantly in activities like transportation and distribution. (Ghadhban, 2023; Kamel, 2001)

In the service sector, services become even more dominant in activities like trade and social services, where direct interactions with individuals or groups are key. The challenge of defining services from an economic perspective stems from two main approaches: one focuses on the intangible nature of service outputs, while the other defines services as non-manufacturing activities. Additionally, problems arise in separating services from goods due to their intertwined nature in production processes, such as transportation relying on planes and ships. (United Nations Human Settlements Programme, 2007; Al-Sayed, 2021)

1.1.6 Functional Centralization and Location Quotient as Indicators of Economic Functions of Cities:

The economic base and location of cities often depend on the presence of specific economic activities that establish the city's independence. Cities may specialize in one or more economic activities that not only sustain their economy but also contribute to self-sufficiency by providing diverse goods and services. The functional centralization of a city is measured by the number of localized jobs, which indicates the city's specialization (Soliman, 2018)

The impact of city functions on the formulation of community service programs within the preparation of strategic plans for Egyptian cities- Case study: Cities of South Sinai Governorate

This specialization is measured by the location quotient (LQ), which quantifies the degree of specialization in a particular function. An LQ below 1 indicates no specialization, while an LQ between 1 and 2 shows moderate specialization. If the LQ exceeds 2, the activity is considered the city's primary economic function. These

indicators help assess the city's economic base and the role of specific functions in its development.

1.2 The Concept of Strategic Planning for Egyptian Cities:



Fig. 3. Phases and stages of urban strategic planning process
Source: (United Nations Human Settlements Programme, 2007)

As shown in Figure (4) there are 4 Phases and stages of urban strategic planning process. Strategic planning helps develop a long-term vision for cities, considering how external influences and resource use can shape future development (United Nations Human Settlements Programme, 2007). By the 1970s and 1980s, strategic planning became essential for urban development, emphasizing community involvement. Unlike traditional planning methods, where decisions were made solely by government authorities, strategic planning now requires collaboration between the state and the community. This shift ensures that all stakeholders participate actively, forming

the foundation of a successful strategic plan.

1.2.1 Strategic Planning Program for Egyptian Cities:

In Egypt, the implementation of strategic planning began in 2004, focusing on sustainable urban development. By 2007, strategic planning was initiated for 231 cities, with many plans approved since 2009. However, the practical implementation of these plans often only reached the approval of urban boundaries. These boundaries define areas available for development, assist in issuing construction licenses, and guide detailed planning efforts (Soliman, 2018; FURP, 2002).

The strategic planning program aims to establish a comprehensive urban development system for Egyptian cities by 2027. It focuses on critical sectors like housing, local economy, and infrastructure while considering social and environmental factors. The participatory approach emphasizes community involvement in identifying issues, setting priorities, and formulating solutions, all while addressing challenges such as poverty and marginalized groups. The goal is to create a sustainable and resilient society that can adapt to changing conditions (Mahmoud, 2015; GOPP, 2015).

Strategic Planning Implementation in Egyptian Cities:

The strategic plans for Egyptian cities were developed in cooperation with the General Organization for Physical Planning (GOPP) and the United Nations Human Settlements Program (UN-HABITAT) in 2008. The plans followed specific guidelines, but early phases revealed challenges, leading to revisions in 2010 and subsequent updates in 2014 and 2016. These revisions addressed issues encountered in the initial stages, refining the process with tools like a logical framework and finalized urban boundaries (GOPP, 2024; Al-Sayed, 2021)

Despite the improvements, gaps remain in the actual implementation of these strategic plans. The law lacks clear provisions on who is responsible for carrying out the plans, especially regarding the involvement of local stakeholders. While participation is crucial for successful planning and execution, there are no specific legal texts that define the roles and responsibilities of the parties involved. Although the Supreme Council for Planning is mentioned at the national level, the process remains unclear at the local level, hindering effective implementation.

1.2.2 The Most Important Problems Facing Strategic Planning in Egypt:

Strategic planning (SP) in Egypt, particularly in cities like Shubra El-Kheima, faces significant challenges, preventing the successful implementation of urban plans. One major issue is the inappropriate selection of development partners, many of whom lack the necessary training and are motivated by personal interests rather than the public good. Additionally, legal provisions, especially regarding land use, complicate the process, as private land cannot be used for development projects without owner consent. This makes it difficult to secure land for non-residential projects (Al-Sayed, 2021).

Other challenges include the state's limited resources to implement public service projects and the reluctance of private landowners to participate in non-residential development. Furthermore, there are issues with inaccurate data collection regarding urbanization, population, and services, and mistrust between the public and state institutions. Many officials also find the strategic plans unclear, requiring further clarification, particularly in terms of land use, to facilitate detailed planning and ensure successful implementation (Aljabri, 2011).

The Egyptian Experience in Public Services Programs Under Strategic Plans:

Egypt's strategic development plans aimed at improving living standards have been implemented over various periods, with a focus on local development and public service projects. These initiatives involved several national and international bodies and were carried out in numerous governorates, using participatory methods and community-based management approaches. Decentralization was applied through strategic planning principles, with notable initiatives including the Egypt Project "6" and the Strategic Urban Development Support Project at the

The impact of city functions on the formulation of community service programs within the preparation of strategic plans for Egyptian cities- Case study: Cities of South Sinai Governorate

national level. (Al-Sayed, 2021; Soliman, 2018)

The most significant initiative has been the preparation of strategic and detailed plans for more than 150 Egyptian cities, with the ongoing development of the remaining cities. This program provides a rich experience for studying and evaluating the challenges and successes of implementing strategic plans in a wide variety of urban environments, highlighting the need for sustainable urban growth and the localization of public services.

1.2.3 Challenges in Studying Public Services Within Strategic Urban Plans:

Analysis of the current conditions for public service localization in cities reveals several challenges. Key among them is the lack of comprehensive data and statistics on public services, as well as a legislative framework that does not support the growth of the service sector or the optimal use of land suitable for public projects. The budget for public services is also insufficient to meet basic needs, which hampers efforts to address both current deficits and future demands within an integrated urban strategy (Spicker, 2024). Other challenges include the difficulty in improving current service levels to match

publicly owned land suitable for public projects. These issues make it difficult to national targets or global standards, the need to activate the role of the private sector and civil society in service development, and the lack of large, achieve substantial progress in public service provision in Egypt's urban areas.

METHODOLOGY

The research methodology involved reviewing literature on community services (in terms of concept, classification, importance, levels, and influencing factors) and economic functions (concept, classification, and requirements). From this review, the study aimed to derive the impact of economic functions on shaping service programs in cities within the context of their strategic plans. A case study was chosen for application in South Sinai governorate, where the current status of both services and economic functions was observed. The study then analyzed the existing methodology for studying current and future services. The ultimate goal was to develop an improved framework for studying services as part of the strategic planning process for Egyptian cities to better align services with economic functions.



Fig. 5. Research methodology. Source: Authors

RESULTS AND DISCUSSION

2. Applied Study: South Sinai Governorate

1.3 Reasons for Choosing the Governorate

South Sinai Governorate was selected as a case study due to its diverse economic activities and urban functions. The governorate plays a crucial role in local and regional development, contributing significantly to the national GDP. Its unique geographical context, which encompasses social, environmental, urban, economic, and political characteristics, allows for a variety of service programs tailored to its specific needs. This diversity presents an opportunity to explore how strategic planning can effectively address the distinct challenges faced by the region.

1.4 Geographical and Spatial Relationships

South Sinai has a triangular shape with its northern base stretching from Taba to Ras Masala and its sides extending along the Gulf of Aqaba and the Gulf of Suez (Fig. 5). The governorate is divided into three main axes: the Gulf of Suez, which includes cities like Ras Sidr and Al-Tour; the Gulf of Aqaba, encompassing Sharm El Sheikh and Dahab; and Central Sinai, home to St. Catherine, which features the highest mountain peaks in Egypt. This region boasts stunning natural beauty, with approximately 600 km of coastline along the two gulfs and notable natural reserves like Ras Mohammed and St. Catherine. (GOPP, 2019)

The impact of city functions on the formulation of community service programs within the preparation of strategic plans for Egyptian cities- Case study: Cities of South Sinai Governorate

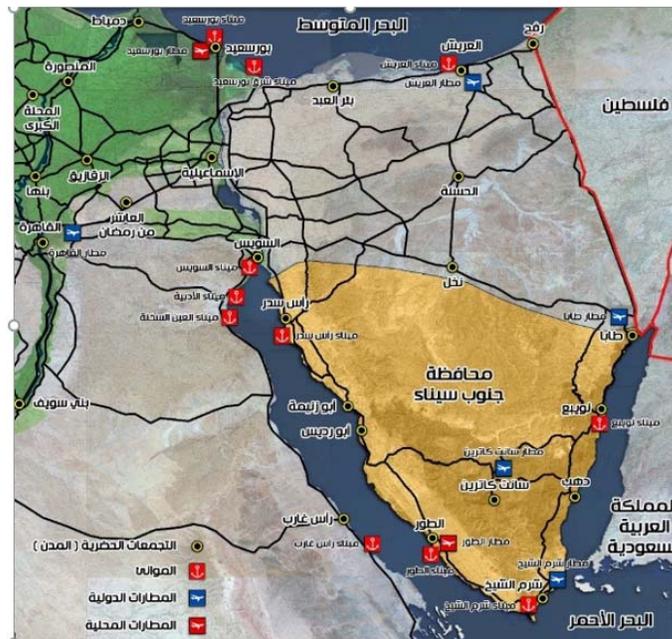


Fig. 6. South Sinai Governorate. Source(GOPP, 2019)

1.5 Current Status of Regional Public Services

1.5.1 Educational and Health Services

South Sinai exhibits a rich array of public service resources, particularly in education and health. In secondary education, the governorate has 21 general secondary schools, with 19 located in urban areas. Additionally, there are 14 technical secondary schools, including commercial, industrial, and agricultural disciplines. For higher education, South Sinai hosts two colleges and one non-university institute, emphasizing tourism and hospitality. The healthcare sector is also well-established, with a hospital in Sharm El Sheikh and several others throughout the region, alongside numerous healthcare offices to support the community (GOPP, 2019).

1.5.2 Other Regional Services

The governorate's recreational and cultural services are noteworthy, featuring a sports stadium, a covered hall, and multiple sports clubs. Cultural resources include two cultural palaces, six cultural houses, and eight public libraries. Additionally, there are 30 social units aimed at serving local

communities, reflecting the governorate's commitment to enhancing the quality of life for its residents through accessible public services (GOPP, 2019)

1.6 Functional Activity Composition of South Sinai Cities

1.6.1 Urban and Rural Activity Distribution

The distribution of economic activities in South Sinai reveals distinct trends between urban and rural areas. In agriculture, Al-Tour stands out, accounting for 66% of agricultural employment in the governorate, followed by Sharm El Sheikh and Abu Rudeis, each contributing 10%. In the industrial sector, Abu Rudeis dominates industrial jobs, while Al-Tour and Abu Zenima follow with 12% and 10%, respectively (

Fig. and Error! Reference source not found.) (GOPP, 2013, 2013 & 2019).

1.6.2 Tourism and Trade

Tourism is heavily concentrated in Sharm El Sheikh, which hosts 89% of tourism-related jobs within the governorate. The trade sector is shared between Sharm

Shimaa A. Mohamed and Hossam Aldeen S. Amin

El Sheikh and Al-Tour, with Sharm El Sheikh holding 45% of trade employment and Al-Tour accounting for 32%. Transportation jobs are primarily found in Al-Tour (36%), with Sharm El Sheikh and Abu Rudeis also significant contributors. Lastly, the services sector is led by Al-Tour,

which employs 52% of the workforce, followed by Abu Rudeis and Sharm El Sheikh at 10% and 9%, respectively. This distribution highlights the economic specialization and interdependence of the region's urban centers (GOPP, 2013, 2014 & 3015).

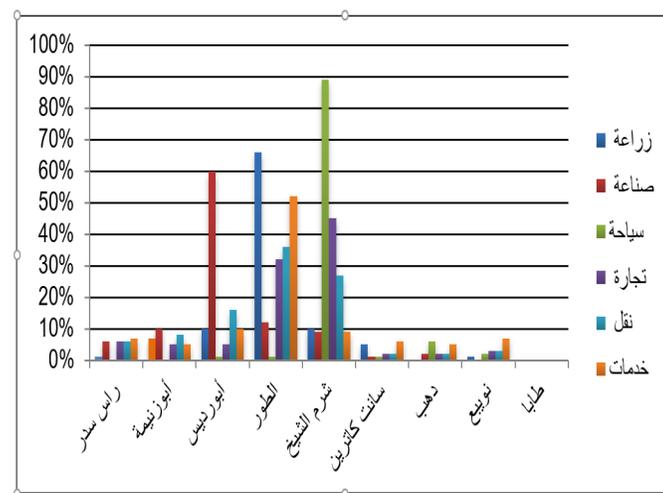


Fig. 7 Relative importance of workers in cities' economic activities.
Source: (GOPP, 2013, 2014, 2019)

Table 1. Relative importance of workers in cities' economic activities.

city	Relative importance of workers in cities' economic activities												
	agriculture		industry		tourism		trade		transport		services		total
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	
Ras Sidr	3	1%	252	6%	29	0%	361	6%	78	6%	761	7%	1484
Abu Zenyma	19	7%	428	10%	38	0%	265	5%	111	8%	504	5%	1365
Abu Rudeis	28	10%	2592	60%	94	1%	264	5%	213	16%	1053	10%	4244
Tor Sinai	192	66%	519	12%	125	1%	1853	32%	487	36%	5678	52%	8854
Sharm-el-Sheikh	30	10%	396	9%	10,457	89%	2,587	45%	368	27%	969	9%	14,807
Saint Catherine's	14	5%	49	1%	124	1%	125	2%	25	2%	615	6%	52
Dahab	0	0%	90	2%	722	6%	95	2%	31	2%	575	5%	1513
Nuweiba	3	1%	20	0%	183	2%	188	3%	44	3%	793	7%	1231
Taba	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0

Source: (GOPP, 2013, 2014, 2019)

Conclusion

2 Knowledge Gaps in Identifying Community Service Projects in Strategic Plans for Governorate Cities

2.1 The methodology gap

2.1.1 Overview of Community Services Sector

The community services sector encompasses various essential services, including education, health, social affairs, youth, and sports. The effectiveness of social services within a city significantly influences its success and ability to meet the needs of its population. A well-functioning social services sector promotes a suitable living environment that fosters social, religious, and cultural connections among citizens. The methodology for studying these services, as outlined by the General Organization for Urban Planning, includes assessing existing services at the city level and examining regional services that serve surrounding villages. Various tables highlight the educational services available, including the number of schools and students, the availability of hospitals, and other social services.

2.1.2 Assessment and Future Needs

After analyzing the current situation, the assessment aims to identify existing service gaps by comparing current metrics with population data. This process informs the development of future service programs based on projected population growth. For instance, the established criteria for educational services suggest ratios like a maximum of 12 classrooms per school and an ideal classroom density of 33 students. These metrics help predict future educational needs, health services, social services, sports facilities, and cultural and commercial activities, ensuring that the strategic plans align with demographic trends.

2.1.3 Proposed Service Programs for Strategic Plans in South Sinai Cities

Examples of Proposed Projects in Taba and Ras Sidr. For the strategic plan of Taba, proposed community services include an elementary school, a vocational middle school, a technical hotel institute, a secondary hotel school, a central hospital, social clubs, and commercial markets. Additionally, facilities such as cinemas, theaters, mosques, public parks, and open spaces are part of the development agenda, reflecting a holistic approach to urban planning that encompasses educational, health, social, and recreational needs.

In Ras Sidr, the proposed services are more extensive, including 11 elementary schools, an integrated Azhar institute, middle schools, daycare centers, and the enhancement of existing hospital facilities. There are also community development associations, social clubs, and local markets for vegetables and fish. These initiatives highlight the emphasis on improving existing services while introducing new facilities to address the growing population's needs.

Identifying Service Gaps and Future Requirements

The analysis of the proposed projects indicates that determining existing service gaps and future needs in strategic planning relies on two main pillars:

- Statistical data reflecting the required service levels and current and projected population figures. The first pillar involves numerical metrics for each service type, adhering to established reference guidelines for strategic plan preparation.
- The second pillar focuses on current population numbers to identify existing deficits and future needs.

However, there remains a significant knowledge gap in understanding the economic factors influencing service

program development, particularly the economic roles of urban clusters. This oversight underscores a fundamental research problem regarding the effective preparation of community service programs in strategic plans.

2.2 Quality Gap in Community Public Services

2.2.1 Link Between Community Services and Economic Functions

This research point examines the relationship between the community services sector and the functional capacities of cities within the governorate as Shown in **Error! Reference source not found.**) It

aims to measure the alignment between existing community services and the economic functions of these cities, as indicated by the distribution of workers across various economic activities. The community services sector plays a vital developmental role by supporting sectoral development across economic and urban dimensions. A table illustrating the economic functions of cities in South Sinai indicates diverse roles, with cities like Ras Sidr and Taba exhibiting a mix of industrial, commercial, and service functions, while others, such as Abu Rudeis, focus primarily on industrial activities.

Table 2. Economic Function of South Sinai Governorate Cities.

city	agricultural activity	industrial activity	tourism activity	commercial activity	transport activity	services activity	Economic function
Ras Sidr							Industrial - Commercial - Services
Abu Zenyma							industrial - commercial - transportation - services
Abu Rudeis							industrial
Sharm El-Sheikh							Tourism - Commercial - Services
Nuweiba							Industrial - Services
Saint Catherine's							Tourist - Services)
Tor Sinai							Industrial - Commercial - Services
Dahab							Tourist - Services
Taba							Tourism - Services

Source: Authors

2.2.2 Service Discrepancies and Educational Alignment

Based on the analysis of the current services, several discrepancies arise regarding educational services. For instance, there is a misalignment of technical secondary schools in Ras Sidr with the economic functions and investment opportunities available in the city. Residents often rely on nearby villages for secondary technical education, highlighting a gap in the city's offerings. Additionally, some cities, particularly Abu Zenyma and Abu Rudeis, lack sufficient

technical secondary schools, despite their industrial significance within the region. Conversely, some cities, like Dahab, host technical secondary schools without an industrial base, indicating a mismatch between educational institutions and local economic needs. Furthermore, the spatial distribution of technical schools reveals further inconsistencies. Cities like Sharm El Sheikh and Abu Zenyma show a lack of commercial secondary schools that align with their economic functions. Additionally, several cities depend on nearby rural areas for regional services,

The impact of city functions on the formulation of community service programs within the preparation of strategic plans for Egyptian cities- Case study: Cities of South Sinai Governorate

suggesting the presence of rural cores providing essential educational facilities without a clear connection to the economic functions of each village. The distribution of secondary technical schools, particularly in tourist-centric cities, is also inadequate, hindering the development potential of local industries and resource utilization.

2.2.3 Institutional Alignment with Economic Functions

The analysis of institutional alignment with economic functions reveals significant discrepancies (Table 3). In cities

such as Ras Sidr, while there are schools for industrial and commercial education, essential facilities for hospitality and agricultural education are lacking. In contrast, cities like Taba and Dahab, which primarily serve tourism and services, show a need for improved educational offerings in these sectors. Moreover, the availability of technical secondary schools in cities like Sharm El Sheikh and St. Catherine is notably inadequate, which limits the cities' potential for sustainable economic development.

Table 3. Integrating the economic functions of South Sinai cities into technical educational institutions.

City	Economic function	Number of Technical Schools			
		Industrial Secondary School	Commercial Secondary	Hotel and Tourism Secondary School	Agricultural Secondary School
Ras Sidr	Industrial - Commercial - Services	One in countryside	One in the city	Non	One in the countryside
Abu Zenyma	industrial - commercial - transportation - Services	One in the city	Non	Non	Non
Abu Rudeis	industrial	One in the city	Non	Non	Non
Sharm El-Sheikh	Tourism - Commercial - Services	Non	Non	Non	Non
Nuweiba	Industrial - Services	One in the city	Non	Non	One in the countryside
Saint Catherine's	Tourist - Services)	Non	One in the countryside	Non	Non
Tor Sinai	Industrial - Commercial - Services	One in the city	Two in the city	One in the city	One in the city
Dahab	Tourist - Services	Two in the city	Non	One in the countryside	Non
Taba	Tourism - Services	Non	Non	Non	Non
		Compatible			
		Not compatible			
		Insufficient for the needs of economic activities			

Source: Authors

2.3 Conclusions on Key Issues in Technical Secondary Education

1 Misalignment of Technical Hospitality Schools with Economic Functions:

The technical secondary hospitality schools in Ras Sidr do not align well with the city's economic needs in functions and

investment opportunities. Residents rely on nearby villages for these educational services, which highlights a shortfall in what the city offers. This reliance on external sources for education conveys a perception of inadequacy in the city's ability to meet the educational needs of its population.

2 Insufficient number of Industrial Technical Schools:

Several cities, particularly industrial centers like Abu Zenyma and Abu Rudeis, lack adequate technical secondary schools to support their economic activities. These cities have significant industrial roles in South Sinai and the Suez Canal region. Additionally, there are instances where industrial technical schools are situated in cities like Dahab, which lack any industrial base, indicating a misplacement of educational resources.

3 Spatial Distribution Issues of Commercial Schools:

The spatial distribution of commercial technical secondary schools does not correspond to the economic functions of cities such as Sharm El Sheikh and Abu Zenyma. This misalignment may hinder the cities' ability to provide relevant education that supports their economic activities, particularly in tourism and commerce.

4 Dependency on Rural Areas for Educational Services: Some cities within the governorate depend on rural areas for regional services, including education. For instance, Ras Sidr, St. Catherine, and Dahab rely on nearby villages to provide essential educational services, such as industrial and agricultural secondary schools, without a direct link to the economic roles of these villages. This indicates the inadequacy of educational facilities in the urban areas.

5 Mismatch in Service Distribution Affecting Tourism: In South Sinai, the distribution of services, including the Technical Hospitality Schools, does not align with the competitive tourism resources and economic functions of cities like Ras Sidr. Furthermore, cities like Sharm El Sheikh and St. Catherine face a lack of sufficient educational facilities, negatively impacting the developmental returns of these activities and the effective utilization of resources.

Recommendations

The recommended proposed developed framework for studying

community services programs within the framework of strategic plans for Egyptian cities is shown in

Fig. 4) and includes the following:

1. Incorporating Urban Functions in Service Evaluations:

This involves utilizing a correlation matrix to analyze the relationship between existing activities and services across various dimensions, such as spatial distribution, type and quantity. This approach aims to provide a comprehensive understanding of service effectiveness in urban planning.

2. Emphasizing Community Participation:

Representatives from local community should be involved in all project stages, and share in assessing the current situation and identifying the needs and priority of programs. This collaborative approach is integral to the proposed strategic plan, ensuring that community voices are heard and incorporated.

3. Identifying Future Service Needs:

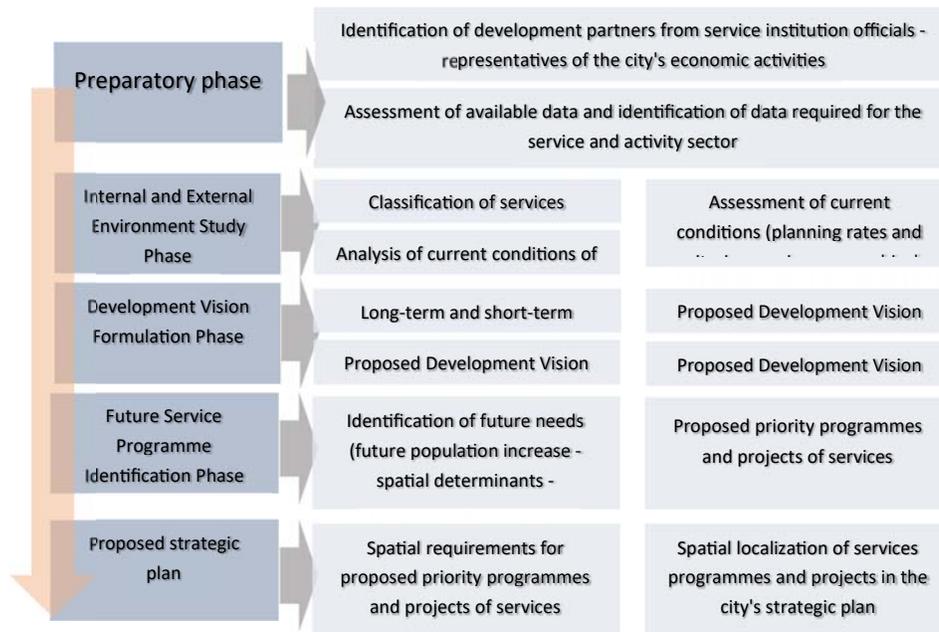
During the stage of determining future needs, it is essential to assess the requirements of economic activities and proposed investment projects. This includes identifying the fundamental service requirements for these activities to enhance their developmental impact. By aligning services with economic needs, the framework aims to maximize the benefits derived from community services.

4. Developing Investment Plans for the Services Sector:

The framework also underscores the importance of preparing investment plans for the services sector. This includes establishing a logical framework to guide the implementation of priority service projects. By having a structured approach to investment, cities can effectively address

The impact of city functions on the formulation of community service programs within the preparation of strategic plans for Egyptian cities- Case study: Cities of South Sinai Governorate

community needs and improve the overall



quality of life for their residents.

Fig. 4. The proposed developed framework for studying community services programs within the framework of strategic plans for Egyptian cities. Source: Authors

REFERENCES

- Al Shawawra, A.S. (2012). Planning in rural and urban development. Dar Al Masirah for Publishing. (In Arabic)
- Aljabri, N. (2011). A critical study of planning standards for services in the Kingdom of Saudi Arabia. <https://www.researchgate.net/publication/308404805>. (In Arabic)
- Al-Jarallah, A. (1995). The planning properties for distribution of Fire Department Centers in the City of Dammam Security J., 11:229–262. (In Arabic)
- Al-Shahabi, K.A.H. (2023). Spatial evaluation of recreational services in Al-Harazat district in Jeddah city using geographic information systems. Journal of the Center for Geographical and Cartographic Research, 20(37), 143–168. <https://mkgc.journals.ekb.eg> (In Arabic)
- Bandak, R.H.S. (2019). Planning rates and standards for public services within Egyptian cities, applied to the city of Tahta, Sohag Governorate, a study in the geography of services. J. Faculty of Arts - Mansoura Univ., 64, 180–239. (In Arabic)
- Duguit, L. (1923). The Concept of Public Service. In Source: The Yale Law J. 32(5). At: <https://www.jstor.org/stable/788739>
- FURP, Faculty of Regional and Urban Planning - Cairo University. (2002). Rural Development Plan for Al-Ayat Center - Giza Governorate. (In Arabic)
- Ghadhban, F. (2023). Geography of services. Al-Yazouri for Publishing, (In Arabic). At: www.yazori.com.
- Hassanien Al-Sayed, S. (2021). The role of strategic planning in Spatial Competing between planned and unplanned urban areas (Case study: Urban Areas of Greater Cairo). JES. Journal of Engineering Sciences, 49(6), 850–870. <https://doi.org/10.21608/jesaun.2021.66281.1037> (In Arabic)
- Maha Sami Kamel. (2001). An approach to the influence of regional elements in

- medium-sized cities on the direction of urban growth [Unpublished PhD Thesis]. Faculty of Regional and Urban Planning - Cairo University. (In Arabic)
- Mahmoud Fouad Mahmoud. (2015). Towards formulating a system for localizing public services in Egyptian cities. J. Urban Research, 17. (In Arabic)
- Ministry of Housing, Utilities and Urban Communities GOPP. (2013). General strategic plan for Abu Zenima city - South Sinai Governorate. (In Arabic)
- Ministry of Housing, Utilities and Urban Communities GOPP. (2014). General strategic plan for Ras Sudr city - South Sinai Governorate. (In Arabic)
- Ministry of Housing, Utilities and Urban Communities GOPP. (2019). Strategic plan for South Sinai Governorate. (In Arabic)
- Ministry of Housing, Utilities and Urban Communities GOPP. (2021). Planning rates and standards for public services in Egypt. (In Arabic)
- Ministry of Housing, Utilities and Urban Communities GOPP. (2024). Guide to updating general strategic plans for villages. (In Arabic)
- Ministry of Municipal and Rural Affairs. (2016). Planning standards for regional and local public services and their different levels. (In Arabic)
- Moselhy, F.M. (2003). Geography of Services: Theoretical Framework and Arab Experiences. Dar Al Majed for Publishing. (In Arabic)
- Soliman, M. A. (2018). Towards Strategic Planning Implementation for Egyptian Cities. International Journal of Environmental Science & Sustainable Development, 2(2), 99–114. <https://doi.org/10.21625/essd.v2i2.171> (In Arabic)
- Spicker, P. (2024). The effect of treating public services as commodities. Public Money and Management, 44(4), 281–288. <https://doi.org/10.1080/09540962.2023.2240641>
- United Nations Habitat. (1996). Report of the United Nations Conference on Human Settlements, Habitat II Cities Summit. (In Arabic)
- United Nations Human Settlements Programme. (2007). Inclusive and sustainable urban planning volume 1: an introduction to Urban Strategic Planning. (In Arabic)
- World Bank. (1997). World Bank World Development Report: The State in a Changing World 1997. (In Arabic)

تأثير وظائف المدن علي صياغة برامج الخدمات المجتمعية ضمن اعداد المخططات الاستراتيجية للمدن المصرية

بالنظير علي مدن محافظة جنوب سيناء

شيماء عبد الوهاب محمد¹ ، حسام الدين سامي أمين²

كلية التخطيط الإقليمي والعمراني – جامعة القاهرة

Shimaawahab@furp.cu.edu.eg -1

hossameldinamer@gmail.com -2

المستخلص

تتجلى أهمية دراسة موضوع الخدمات كونها ترتبط بشكل مباشر مع حياة السكان من الناحية الاجتماعية والبيئية والاقتصادية ، بالإضافة الي كون الخدمات من أهم عناصر مكونات المناطق السكنية حيث تستمد هذه المناطق أهميتها وكفاءتها من مدي توافر الخدمات بها ومدى تلبية احتياجات السكان والأنشطة الاقتصادية وهي تختلف تبعاً لحجم ونوع وطبيعة المنطقة التي تتواجد بها وكذلك تختلف باختلاف متطلبات السكان من منطقة الي أخرى أيضاً بتغير مستواهم الاقتصادي وسلوكياتهم وعاداتهم الاجتماعية ودرجة الثقافة. وتعتبر الخدمات من أهم عناصر مكونات التجمعات العمرانية والتي تظهر بوضوح في خرائط استعمال الأراضي بحكم ما تشغله من مساحات كبيرة بالنسبة لباقي الاستعمالات الأخرى وأيضاً بحكم ضرورة التوزيع المنتشر لوحدها داخل الكتلة العمرانية لاي تجمع ، واتجهت التجربة المصرية الي اعداد المخططات الاستراتيجية لتنمية التجمعات الحضرية باستخدام منهج التخطيط الاستراتيجي و الذي يتضمن داخليا اقتراح برامج الخدمات . وقد اعتمدت المنهجية الخاصة بدراسة الخدمات في اطار المخططات الاستراتيجية علي الاعتماد علي ثلاث محاور رئيسية في اقتراح برامج الخدمات المستقبلية للمدن وهي (المعدلات الرقمية – المسافات الجغرافية – المستويات الإدارية) وهي معدلات موحدة علي كافة التجمعات وتم اغفال بعض العوامل الأخرى ومنها خصوصية التجمعات من حيث الوظيفة الاقتصادية وها ما يهدف اليه البحث في قياس تأثير الوظيفة الاقتصادية للتجمعات علي صياغة البرامج الخدمية المستقبلية وبالتالي الوصول الي اطار مقترح مطور لدراسة برامج الخدمات خلال اعداد المخططات الاستراتيجية للمدن المصرية. سيقوم هذا الإطار بتقييم تأثير الوظائف الاقتصادية للمدن على صياغة برامجها الخدمية المستقبلية، مع تطبيق محدد على مدن محافظة جنوب سيناء.

The impact of city functions on the formulation of community service programs within the preparation of strategic plans for Egyptian cities- Case study: Cities of South Sinai Governorate

الكلمات الدالة :- برامج الخدمات – المدن المصرية – المخططات الاستراتيجية – الوظيفة الاقتصادية – المركزية الوظيفية – جنوب سيناء