

Work Package 7:

Integrating Rapid Planning Methodology into Spatial Planning and Urban Development Procedures

Task - 7.1: Review of Spatial Planning and Urban Development Systems

Task 7.2: Identification and Documentation of Sustainable Urban Development Goals

Deliverable - 7.1/7.2:

Documentation and Review of Spatial Planning Systems and Urban Development Goals in Assiut, Egypt

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This document discusses the topic of urban development and city planning of Assiut in its general terms. This includes the presentation of the administrative system of spatial planning, the city's dynamics, trends, tensions as well as urban development goals and visions of the future development.

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1 Introduction

This paper aims at obtaining a deep understanding of city planning and urban development in Assiut as one of the case cities of the Rapid Planning research project. Therefore, the paper will closely examine the city's actual status in terms of the current planning administrative system, instruments, major institutions and procedures as well as urban development trends and dynamics of the city. On the one hand, this would help shed the light on Assiut's administrative adaptability and response towards growth and resource management and address the actual measures to mitigate and adapt to climate and environmental policies, taking into account the risks and hazards. And, on the other hand, this would highlight the influential challenges and urban tensions taking place within the city. Due to accessibility and formal permissions issues, the urban future of the city is then to be discussed. This will include the identification of the urban development visions, officially planned future and relevant documents that fall in line with the Rapid Planning research approach. On a later stage, addressing the short-, mid- and long-term goals and targets of urban development, as well as the information bases and indicators behind, will be delivered.

Assiut is one of the biggest cities in Upper Egypt and the capital of Assiut Governorate as well as the Economic Region of Assiut. Providing the concrete overview intended in this report would help explain the mechanisms of the city hosting services, businesses and traffic for its region and facing the pressure of a rapid population growth. This would pave the way for investigating potentials and suggesting constructive interventions for more effective development measures and planning procedures.

2 Understanding Spatial Planning

The process of spatial planning in Assiut is strongly sub-regulated under the governorate and economic region of Assiut as well as the mandate of the national government. It is further pressured by the socio-economic composition and severe challenges imposed by the environment. In order to understand the spatial planning system in Assiut, there is the need to define the concept of spatial planning in the context of this research. The purpose of this research is to describe and understand the general processes and procedures of urban planning in Assiut. The definition of the concept of spatial planning in Frankfurt should not be generalized to other cities since this research is focused on a context-based qualitative applied research process. Therefore, contextual characterization of spatial planning in Assiut will be shaped and developed, explaining its opportunities, concerns, and limitations in the urban arena.

There is a multiplicity of understandings about spatial planning trying to explain this concept around the world. In the European context, the European Commission defined spatial planning as the: *"methods used largely by the public sector to influence the future distribution of activities in space"* (European Commission 1995, p.24). In other words, spatial planning is a set of governmental strategies aiming at rationalizing land uses while organizing activities within the city fabric. Other definitions, define spatial planning as a tool for integrated urban development, proposing programmes and policies in regards to the built environment, but also influence the uses of urban spaces and the behavior of residents (United Kingdom Office of the Deputy Prime Minister 2005). In this sense, spatial planning is an instrument for integration between the territory, its different

functions and development policies. In 2008, the United Nation's document *"Spatial Planning: Key Instrument for Development and Effective Governance with Special Reference to Countries in Transition"* proposed a more extended definition, integrating the different aspects already mentioned before. This report stated that spatial planning is:

"Largely a public sector function to influence the future spatial distribution of activities. It aims to create a more rational territorial organization of land uses and the linkages between them, to balance demands for development with the need to protect the environment and to achieve social and economic objectives. Spatial planning comprises measures to coordinate and improve the social impacts of other sectorial policies so as to achieve a more even distribution of economic development within a given territory that would otherwise be created by market forces. Spatial planning is therefore an important lever for promoting sustainable development and improving the quality of life" (Belka 2008, p.V).

This much more specific description of spatial planning acknowledged the existent tension between policies, urban processes and land uses taking place in the cities. The definition of Marek Belka in the UNECE report (2008) understands the lack of cooperation among urban development processes which could lead to urban contradictions and their integration, in contradiction to processes of sustainable development. In that sense, spatial planning is the mechanism addressing the planning processes in a city considering its governmental structures, official guidelines and land use proposals altogether with the economic, environmental and social goals. Spatial planning becomes an instrument for short, middle and long-term urban objectives, engaging public and private interests while balancing development and economic objectives with social and environmental considerations.

3 The Administrative System of Spatial Planning in Assiut

The current urban planning system in Egypt could be traced back to the English Town and Country Planning. In 1956, for instance, the twenty-year long-term plans to guide and control development were introduced. Furthermore, a planning system composed of a structured plan, general plan, and detailed plan was also introduced. These plans were used to pursue the development of farmland, redevelop old urban areas, develop satellite cities, and construct corridors that connect new towns and cities (KOICA 2007).

In order to understand the administrative aspects of spatial planning in Assiut, it is necessary to explore the major formal planning instruments as well as the corresponding formal institutions that govern land-uses and urban development in the city. This will lead the paper in the following review to scheme through both structures of planning and administration of the country. Although the administrative structure in this context is the basis on which planning in Egypt is conducted, major plans and influential planning procedure indicate a planning hierarchy that is slightly different to it. Therefore, the planning levels shown do not necessarily correspond to the administrative levels in an identical manner, but rather help this review to serve the goals and focus of the Rapid Planning project.

In this sense, the formal plans and planning instruments on the higher administrative levels of the government beyond the municipal borders of Assiut should also be examined, since they seem to have an essential influence on the local development and formal planning of the city itself. Strategic plans, for instance, are set to orchestrate and dominate the current schemes of urban development, city planning, infrastructure provision and future investments on the municipal as well as the country level (Nada 2012). Next, to strategic planning, there are also other means to direct, control and monitor urban development that could be reviewed.



Figure 1: Planning Levels in Egypt. Elaborated by the FRA-UAS Team

It could be argued that spatial planning in Egypt is handled at three major levels of administration: the national, regional, and the local. On each level, there are major governmental institutions that are in charge of one or more planning instruments influencing urban development and city planning within the municipal boundaries of the Egyptian cities. In the following points, a closer examination of the major planning activities and stakeholders will be taken, while the paper manifests the key formal plans and planning instruments at each level:

3.1 The National Level

On this level, the general policies and urban development goals for the country as a whole are perceived and conducted. This includes the development of the guiding principles that provide the legal basis for subordinated plans and procedures as well as all specifications for sectoral planning. Through its central ministries and organizations, the national government plays here the dominant role in planning and monitoring for the whole country (Nada 2012).

It could be stated that the Egyptian government practices two main approaches to planning at this level: comprehensive and strategic. The comprehensive planning could be considered as the classical approach to planning and urban development that has a relatively long history of practice by the central government since it was regulated in the Planning Law¹ of 1973. The strategic approach to urban development came later in 2008 since the Building Law² was first enacted as an attempt to

¹ Law 70/1973, known as the Planning Law, is mainly concerned with the different aspects affecting the process of designing the Egyptian social and economic development. The law aims to develop and establish efficient economic, administrative and geographical distribution of projects in the form of comprehensive planning. The law indicates that a long term general national plan for the economic and social development shall be set forth. Further, it organizes the establishment of the economic regions as well as local administration (UN-Habitat & United Nations Human Settlements Programme 2015).

² Law 119 / 2008 (UN-Habitat & United Nations Human Settlements Programme 2015)

include urban planning and building-related legislations in one integrated law (UN-Habitat & United Nations Human Settlements Programme 2015).

In accordance with the regulations of the preceding Planning Law, which is still considered as the main basis regulating and financing urban development projects, the Ministry of Planning Monitoring and Administrative Reform (MoP) undertakes the central operation of comprehensive planning on the national level. It is in charge of planning the economic and social development of the country on the long and medium terms in the light of the general objectives of the state. The ministry defines the allocations of the governmental fund for all approved development projects. On the other hand, the Ministry of Housing, Facilities and Urban Communities (MoHFUC), through its organizations and their regional branches, is in charge of the central operation of strategic planning and urban development for the whole country as regulated by the more-recent Building Law (UN-Habitat & United Nations Human Settlements Programme 2015).

In addition to these two major actors, however, it should be mentioned that there is yet a higher council chaired by the Prime Minister with the membership of competent ministers, the directors of the bodies concerned with urban development and state land and ten experts specialized in relevant issues. At the national level, this Supreme Council for Planning and Urban Development (SCPUD) is mandated to secure harmony among the actors in urban development, to adopt general goals and policies for planning and urban development, to draft potential laws securing formal planning and also to approve the strategic plans for national and regional urban development as well as the formal plans of the governorates (Nada 2012).

On the national level, the following major planning instruments/tools could be recognized:

3.1.1 The State General Plan

The Ministry of Planning Monitoring and Administrative Reform (MoP) is mandated with the preparation of the state general plan and the follow-up of its implementation. The State General Plan is a comprehensive plan that is mostly concerned with the socio-economic development of the country³. The ministry is expected to review, assess and integrate all proposed plans and projects submitted by different ministries and only include those that were proven to be valid from an economic perspective. The Ministry compiles all approved projects in a coordinated and integrated manner in a draft plan to be submitted together with the draft state general budget (prepared by the Ministry of Finance) to the Cabinet. The draft plans are then referred to the parliament prior to the commencement of the financial year to be endorsed and issued as laws. Once the plan is approved by the parliament, all ministries, as well as governmental entities, are expected to adhere strictly to it (Nada 2012).

³ Article 3 of the Planning Law guides comprehensive planning for the national economy which indicates that a long term general national plan for the economic and social development shall be set forth. This plan is divided into time phases of medium terms and these, in turn, are divided into annual detailed plans that have the necessary flexibility to confront what arises of developments during the execution of the plan. The medium term and annual term plans include the regional and local plans in a way that materialized the association and coordination of these plans within the frame work of the general national plan (UN-Habitat & United Nations Human Settlements Programme 2015).

3.1.2 The National Program

The General Organization for Physical Planning (GOPP) that is regulated under the authority of the Ministry of Housing, Facilities and Urban Communities (MoHFUC) develops the National Program for the preparation of strategic plans for urban development on the different planning levels of the country, regions, governorates as well as the cities and villages (Nada 2012).

3.1.3 The Strategic National Plan

On the development basis set by the National Program, the General Organization for Physical Planning (GOPP) develops the Strategic National Plan. This plan defines the objectives, policies, and urban development programs for the whole country. It further exhibits the national projects to be implemented, stages of implementation and the role of both the public and private bodies in such implementations (Moustafa 2015; UN-Habitat & United Nations Human Settlements Programme 2015). This Strategic National Plan is overarching all strategic plans on the subordinated levels. In principle, going downwards in the strategic planning hierarchy, a strategic plan of one level is meant to set a framework as well as guidelines for the plans and planning processes on the underlying levels.

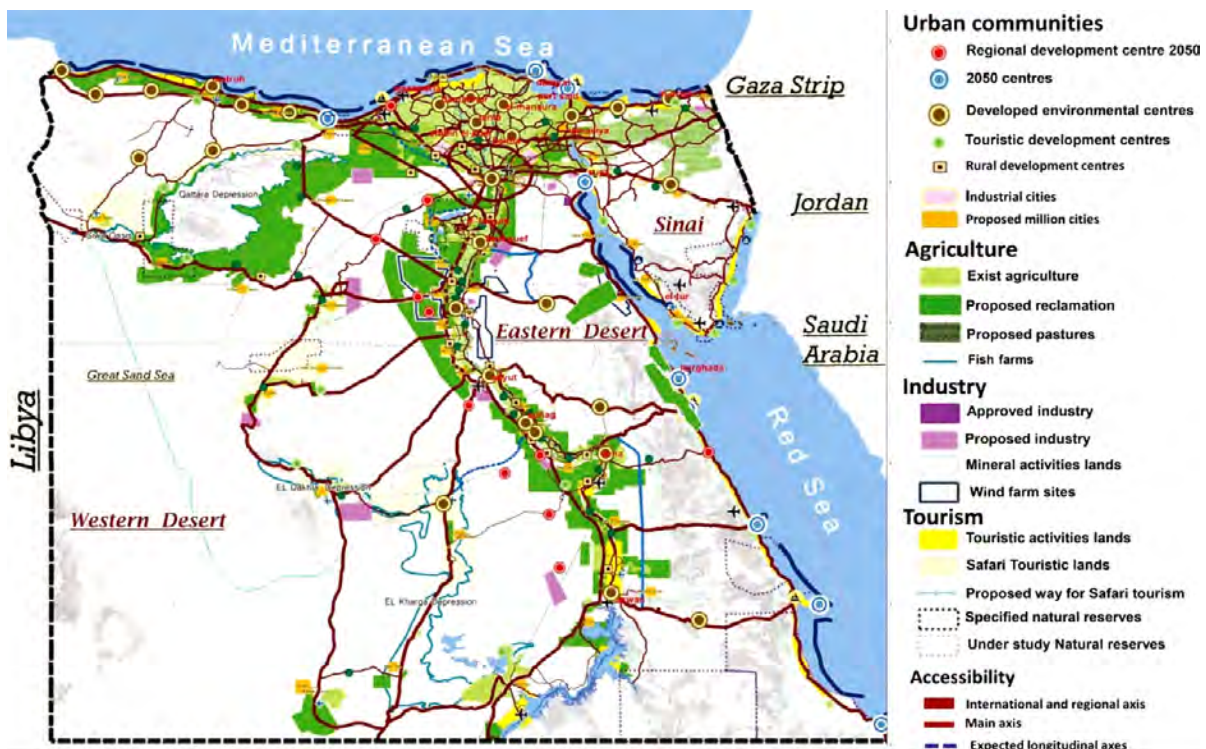


Figure 2: The Strategic National Plan for Urban Development 2052. Source: (GOPP 2012)

3.1.4 The State Land Usages Maps

In coordination with the Ministry of Defense (MoD), The National Center for Planning the State Lands Usages (NCPSLU) is mandated to prepare the maps of the uses of the lands that are owned by the

state including the state lands outside the urban perimeters of the country. The preparation of these maps includes counting and reforming the corresponding lands, preparing the general planning for their development within the framework of the general policy of the government, organizing their protection as well as coordinating between ministries regarding land pricing rules, the system of their sale and also the collection of their value. Upon receiving the approved maps, each ministry within its specialization is fully entitled to address all the specifications concerning the lands categorized under a land-use type of its own major activity (Nada 2012).

3.1.5 Observations on the Planning Procedures at the National Level

At the national level of spatial planning in Egypt, it could be concluded that the two major actors influencing, directing and monitoring formal urban planning are namely the Ministry of Planning Monitoring and Administrative Reform (MoP) and the General Organization for Physical Planning (GOPP). The GOPP, on its turn, is regulated under the authority of the Ministry of Housing, Facilities and Urban Communities (MoHFUC)⁴. These two institutions contribute largely to shaping urban development and leading planning procedures for the whole country, in parallel. While the first handles urban planning in a classic, comprehensive and very detailed manner including all the financially-approved projects proposed by the different ministries, the latter introduces a more strategic approach that integrates the long-term development goals and future visions to urban planning (Nada 2012). With the Supreme Council for Planning and Urban Development (SCPU) on top, the array of actors as well as planning instruments at the national level of spatial planning indicates a rather heavily-institutionalized planning process and shows a major dominance of the central government over planning procedures and urban development in the country.

3.2 The Regional Level

Egypt is divided into seven economic regions, where each is represented by a Regional Planning Authority (RPA) that is subordinated to the Ministry of Planning Monitoring and Administrative Reform. In their designated regions, these seven regional authorities prepare social and economic studies and anticipate the future circumstances. They address the potentials of natural and human resources as well as the appropriate approaches for an efficient investment. They propose the regional development trends and specify regional projects accordingly. Also, these authorities are expected to capacitate their technical staff in order to empower planning and research activities on the regional level. As a major task, they develop the regional plans and monitor their implementation in coherence with the priorities and standards set and approved by a respective Supreme Committee for Regional Planning (Moustafa 2015; UN-Habitat & United Nations Human Settlements Programme 2015).

As mentioned already, each economic region has also a Supreme Committee for Regional Planning (SCR) with the membership of governors of the governorates as well as the heads of the

⁴ The formal names of the ministries may differ in the reviewed documents due to recent changes in the cabinet or in the distribution of functions between the central ministries. This paper uses the official names of the ministries as found in the official online-portal of the Egyptian Government by the time of the preparation of this report (<https://www.egypt.gov.eg/English/Home.aspx>).

local popular councils constituting the region, in addition to representatives of the competent ministries and the chairman of the respective regional authority. The purpose of these committees is to ensure coordination between the plans and suggested priorities of the sub-ordinated governorates and the regional planning authorities. They also review the periodical reports, follow-ups and amendments suggested by the regional planning authority and approve them. The recommendations issued by the committee shall be provided to the Supreme Council for Local Administration⁵. Unlike the regional authorities, these supreme committees respond to the Ministry of Local Development (MoLD) (UN-Habitat & United Nations Human Settlements Programme 2015; Moustafa 2015).

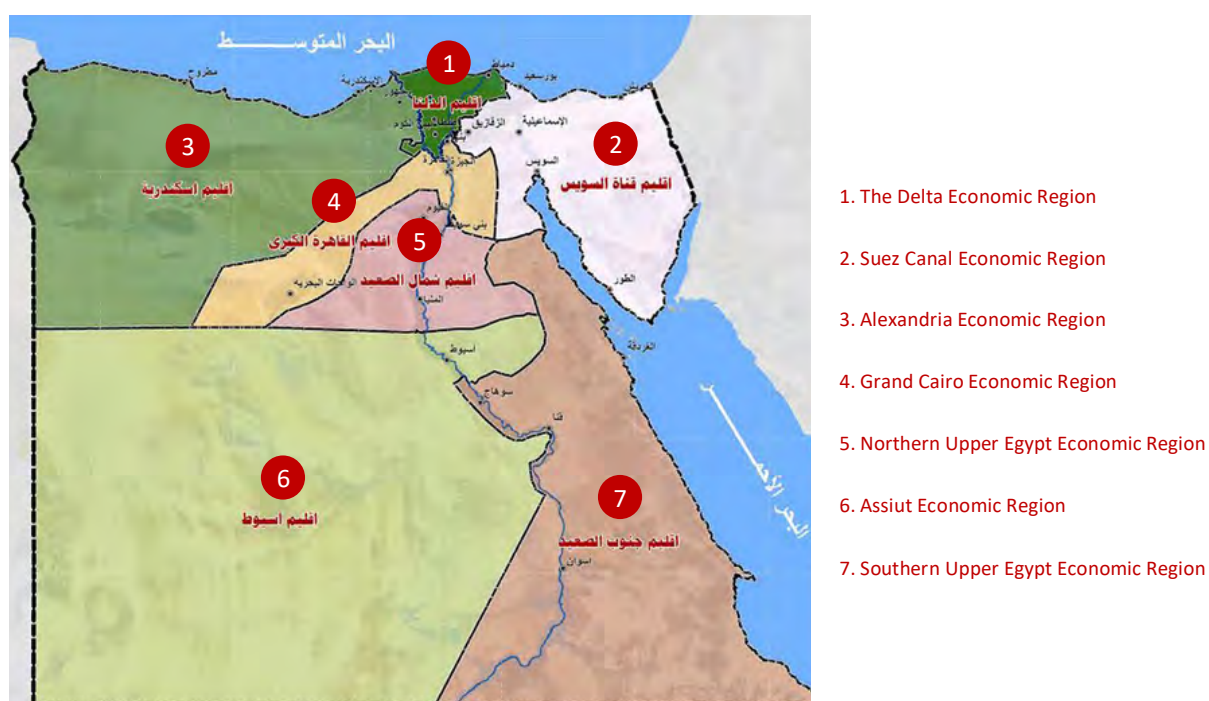


Figure 3: The Seven Economic Regions of Egypt. Source: (GOPP 2017)

In addition to the mentioned regional authorities and supreme committees, regional branches of the General Organization for Physical Planning are also established. Each economic region, therefore, hosts a Regional Center for Urban Planning and Development (RCUPD) that is affiliated to the GOPP and thus under the authority of the Ministry of Housing, Facilities and Urban Communities. These centers are seen as a measure to enhance the decentralization of strategic planning authority as they assume the mandate and responsibilities of the GOPP such as urban planning, infrastructure planning, social analysis and information generation in their respective regions (GOPP 2014; Moustafa 2015). They shall further provide the technical support to the General Administrations for Urban Planning and Development⁶ of each governorate in their regions. In addition to strategic

⁵ More information on the Supreme Council for Local Administration is provided in the following point of the Local Administration Level.

⁶ A General Administration for Urban Planning and Development is usually the city planning department that is in charge of the implementation and monitoring of the approved development plans. Such a city planning department is usually regulated under the authority of the respective Governorate General Administration that is headed by the Governor.

regional planning, Regional Centers for Urban Planning and Development prepare the general strategic plans for the cities and villages of their region. They also review the notes of the citizens and related stakeholders regarding the strategic plans and carry out the necessary amendments accordingly⁷ (Moustafa 2015).

The following major planning instruments/tools could be recognized on the regional level:

3.2.1 The Regional Strategic Plan

Provided by the General Organization for Physical Planning, these are the plans that set out the urban development goals, policies and programs for each economic region. They further indicate the regional projects to be implemented, phases of implementation and role of both the public and private authorities in such implementation within the framework provided by the National Strategic Plan (Moustafa 2015; UN-Habitat & United Nations Human Settlements Programme 2015). As instruments for urban planning at this level, regional strategic plans are entitled to introduce official development strategies that seek to strike a development balance amongst the regions in the country. On this basis, they should control and contain the development of the congested regions. And, on the other hand, these plans should indicate more development for the regions of urban depression⁸. In order to host the expected population growth, the total sum of the populated areas of the country should be increased. Regional strategic plans, therefore, should aim at attracting investments and population to new development areas as well as development axes⁹. Regional plans are seen as urban planning measures that should also integrate and complement national efforts and interests to protect, conserve and regenerate local ecosystems, to attract foreign investments, to transform the available human resources into human capitals to make up for lack of natural resources and to liberalize the economy (GOPP 2014).

⁷ The notes of the citizens and the related stakeholders are usually collected by the respective General Administration for Planning and Development in correspondence with the strategic plan addressed. This is based on (Articles 11, 12 Law 119/2008) (Moustafa 2015).

⁸ Reversing urban polarization in Egypt and declining internal-migration rates to both Cairo and Alexandria are goals stated by the GOPP on the regional level. These goals require lower rates of growth in the congested regions such as that of Cairo and Alexandria. Also, depressed regions such as that of Upper Egypt should get a fairer share of investments and better employment offers (GOPP 2014).

⁹ As stated by the GOPP, the regional strategic plans introduce new urban development areas outside the Nile Valley and the Delta. New development axis along the coasts of the Mediterranean, the Red Sea and the Gulfs of Suez and Aqaba are also envisioned to expand the populated five percent of the gross area of Egypt to exceed 22 percent of the gross area (GOPP 2014).

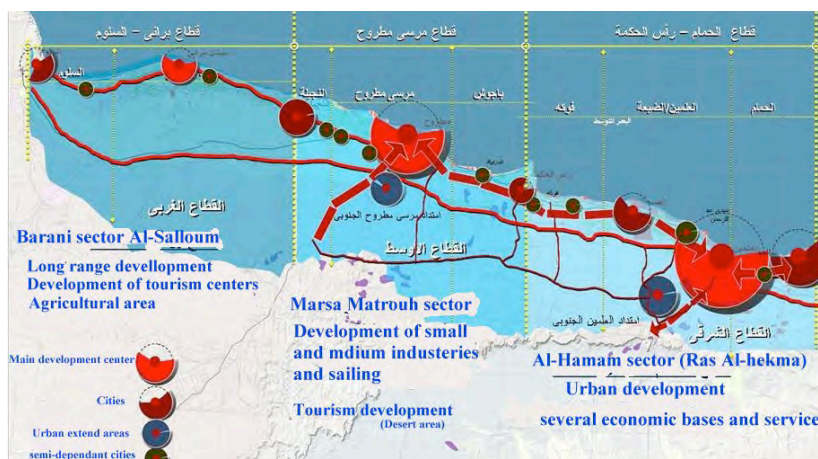


Figure 4: Regional Plan for the Northwestern Coast. Source: (GOPP 2014)

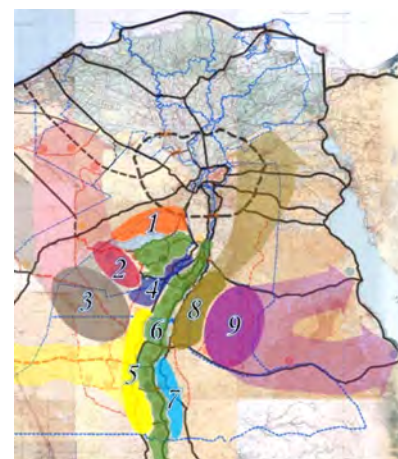


Figure 5: Strategic Plan for Northern Upper Egypt Region. Source: (GOPP 2014)

3.2.2 Observations on the Planning Procedures at the Regional Level

Apart from the administrative structure that is seemingly giving more weight to the regional authorities and supreme regional committees, the regional strategic plans indicate rather an essential role for the GOPP, through its regional branches, as the major actor at this planning level. This is due to the function of regional plans since they provide a solid manifestation of the policies adopted by the national government and have a major influence on urban planning on the regional as well as the underlying levels. According to the regulatory laws, however, the regional level in Egypt's case is considered as a planning level only and not an administrative one, which preserves the decision making obligatory power, but without its execution (Moustafa 2015). This could effectively exclude the executive mandate and implementation enforcement from the actors on this level.

3.3 The Local Administration Level

Egypt is administratively divided into 27 Governorates¹⁰. Depending on their status of urban development, these governorates are either complex, comprising urban as well as rural communities, or simple and thus entirely urban. Materials, literature and laws reviewed for the purpose of this paper indicate that the administrative level of a Governorate, in either form, marks the start of local administration on the governance hierarchy of the country. On this note, the Governorate General Administration (GGA) in each governorate is formally considered to hold the highest level of an extended sub-structure of local administration¹¹ that seeks to address Egypt's population. Starting with the governorate level from the top downwards, the local administration sub-structure continues

¹⁰ The (GOPP 2014) suggests, however, that the number of governorates should be increased to 32.

¹¹ The law of the local administration system was enacted for the first time in 1960. The Law no. 43/1979, however, was the most critical because it changed the three local administration levels into the five levels of Governorate, *Markaz* (Center: rural district), City, District, and Village. This law, therefore, amended by laws no. 106/1987, 145/1988, 9/1989, 84/1996, and 96/2003 is the cornerstone organizing the local administration system (KOICA 2007; Moustafa 2015; Amin & Ebel 2006).

to address the administrative levels of *Markaz* (Center: rural district), City, District and Village¹². The physical boundaries of local administration and municipal units have been drawn accordingly.

A twin structure of an executive committee (EC) representing the administrative branches and a popular council (PC) representing the citizens is regulated at each one of the five local levels. In principle, a dual hierarchy of five Executive Committees parallel to five Popular Councils representing the five administrative local levels in each governorate was established. The sub-structure of local administration was sought to provide more administrative flexibility to municipal authorities, to support the implementation of the governmental policies and to promote public participation on each level of the local administration¹³ (Amin & Ebel 2006; KOICA 2007; Moustafa 2015).

In order to enhance the local administration system in Egypt, a necessary connection between the national and the local administrative levels has been considered to be important. Such a connection, as envisioned, could draw the national planning activities closer to the municipal authorities of the local units throughout the country. For this purpose, and to ensure and monitor the implementation of the approved plans and policies on the municipal level of the local units, a Supreme Council for Local Administration (SCLA) shall be formed at the national level¹⁴. This council should be under the leadership of the Prime Minister, or whom he deputizes, and the membership of the competent minister of the local government, the governors and heads of popular councils of the governorates. It shall take charge of reviewing all that is concerned with the local government system, regarding its support and the evolution and proposal of laws, regulations and decrees, having an effect on the local society¹⁵ (UN-Habitat & United Nations Human Settlements Programme 2015).

The major development plans at the local administration level could be summarized under two sub-levels based on their scale: the governorate plans, dealing with the whole area of a governorate, and local unit plans, addressing the municipal area of either a city or a village. Planning instruments that could be addressed at the governorate sub-level of local administration are:

3.3.1 The Governorate Strategic Plan

Provided by the General Organization for Physical Planning, they are the plans that specify the objectives, policies, urban development programs for each governorate within the regional framework that includes the governorate, and exhibits projects that shall be implemented, their priorities, their implementation stages and the role of each of the public and private bodies in this implementation. In preparation for the strategic plans at this level, the executive council of each

¹² According to (Moustafa 2015), all these administrative levels have a legal status (Article No. 1 law 50/1981).

¹³ The local administration sub-structure changes depending on the urban status of the governorate and the size of population in its cities and villages. If the city is relatively small, there will be no need for the districts to be present in the dual hierarchy of popular and executive councils. In the governorates that are entirely urban, the local levels of *Markaz* (Center: rural district), City and Village are excluded from the administrative structure (KOICA 2007; Moustafa 2015).

¹⁴ Although the Supreme Council for Local Administration is regulated at the national level, it seemed reasonable to consider it under this section, since it is closely related to the activities on the level of local administration and has less to do with the major planning processes at the national level.

¹⁵ The Supreme Council for Local Administration is regulated by the Article 5 of the Local Administration Law 43 / 1979 (UN-Habitat & United Nations Human Settlements Programme 2015).

governorate is bound by the Building Law¹⁶ to prepare the objectives and local urban policies of the governorate in a coordinated effort with the corresponding regional center affiliated to the GOPP. These goals, however, must pursue the needs determined by the local popular council of the governorate and within the framework of the approved national and regional goals and policies (UN-Habitat & United Nations Human Settlements Programme 2015).

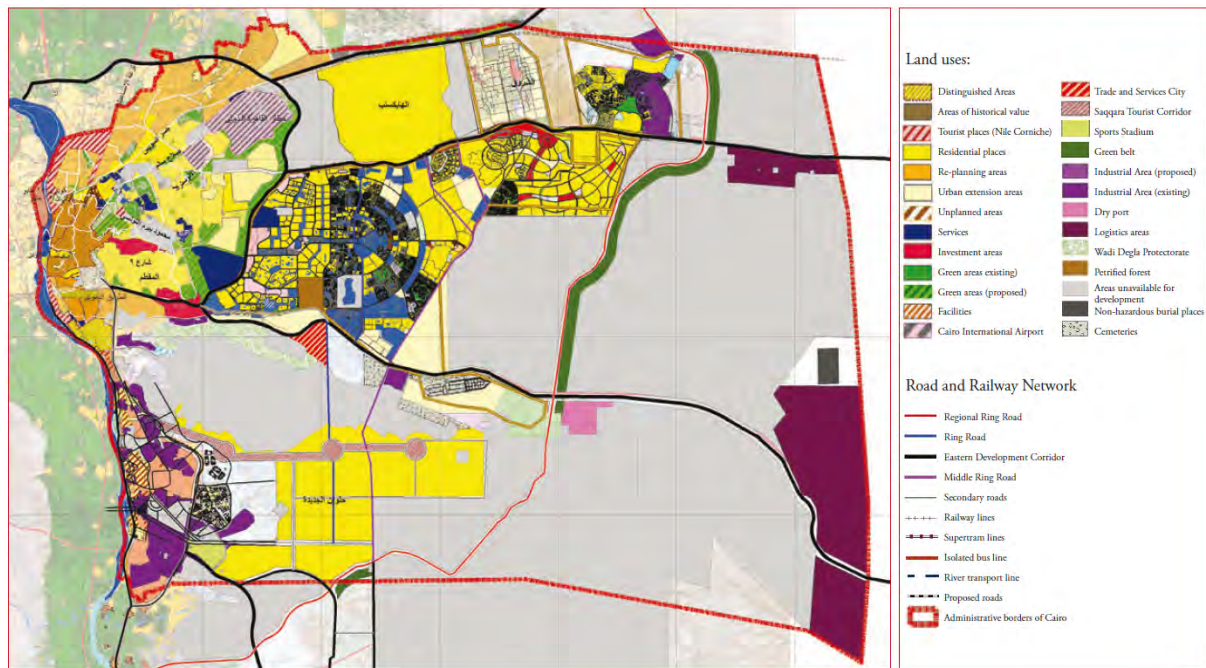


Figure 6: Strategic Plan for Cairo Governorate. Source: (GOPP 2012)

The local-unit plans addressing an entire city or a village that could be addressed on the local-unit sub-level of the local administration level are:

3.3.2 The Strategic Plans for Cities and Villages:

Since these plans are of an essential importance for the local urban development, an official guide to developing strategic plans for the Egyptian cities is provided by the MoHFUC¹⁷. Therefore, an extended review of these planning instruments is possible. The guide (MoHFUC 2015) states that strategic plans on the municipal scale of a city or a village are initiated on the basis of the strategic goals and policies approved by the central government, with a consideration of related studies and previous suggestions. The development of such plans begins with the preparation of a multitude of development alternatives that could achieve the goals and vision stated at the national level for urban development. An assessment process of the suggested development alternatives should follow in order to refine a development scenario and accordingly address the main elements of the strategic plan in preparation. Here, the cons and pros of each alternative should be reviewed regarding some key areas of importance. This includes topics such as housing capacities, basic infrastructure costs,

¹⁶ Based on (Article 9 No. 119/2008) (UN-Habitat & United Nations Human Settlements Programme 2015).

¹⁷ The Guide to Developing Strategic Plans for Egyptian Cities and Villages is an official document provided by the Ministry of Housing, Facilities and Urban Communities. The Document is available in Arabic.

balanced population and economic growth averages, economic diversification, service provision, pressing development problems, sustainable urban development and resource management, integrated urban development, urban polarization reduction and utilization of current capabilities and urban indicators.

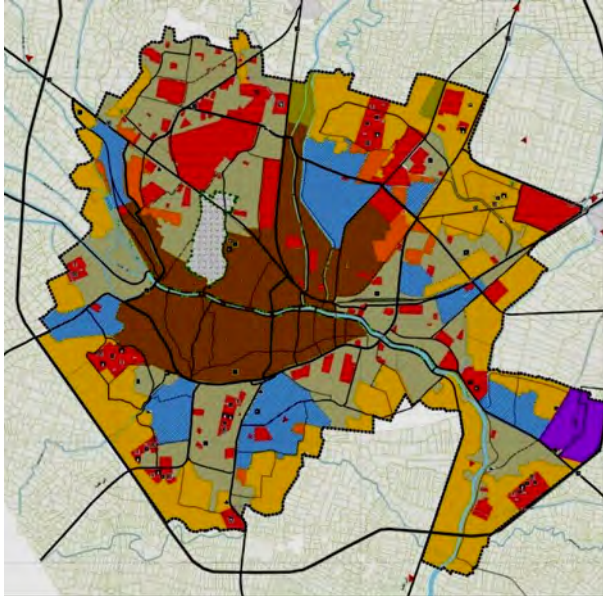


Figure 7: General Strategic Plan for El-Fayyoun City.
Source: (GOPP 2017)

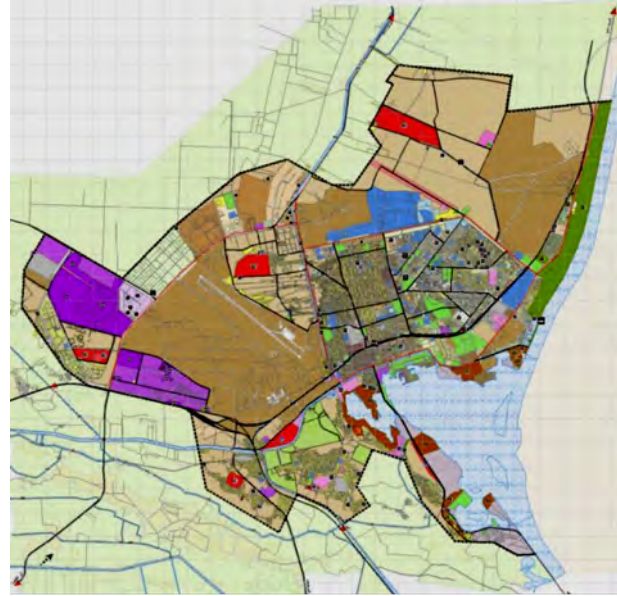


Figure 8: General Strategic Plan for El-Ismailieh City.
Source: (GOPP 2017)

A strategic plan for a city or a village should be accompanied by a written report. The approved plans on this scale should clearly address the following points stated by (MoHFUC 2015):

- Divisions of the intended development areas: A sub-strategy should be then developed for each area to contribute to the overall goals of the development. For instance, areas of existing urban structures could be entitled with an urban redevelopment sub-strategy. Urban upgrade or buffering could be addressed for the cases of unplanned areas. The development of available spaces within the built space as well as the added areas to the city could be regulated by an urban development or expansion sub-strategy. Promotion of industrial, recreational or economic sub-strategies could be featured for mixed land-use areas.
- Priority projects: These are the projects that serve to achieve the approved development goals of the plan. This would include service provision and infrastructure, investment projects and also regional projects.
- Roads networks: To show the suggested vision for the various types of traffic and mobility within the plan considering the available offers. This includes the relevant infrastructural projects such as bridges, tunnels and pedestrian bridges to increase the efficiency of the network.
- Basic infrastructure: To show the spatial allocation of the key sectoral infrastructure regarding water, wastewater, electricity and solid waste on the plan.

- Specific building and construction regulations: Such as the width of the streets, building height, type of usage, building and lot coverage percentage, etc.
- The armed-forces-height-restrictions: To clarify and avoid contradictions with the building height restrictions set by the Operations Body of the Armed Forces that is regulated under the Ministry of Defense.
- Decision of authorization of the strategic plan: This includes the date of issuance and presentation to the public, the authorization of the Operations Body of the Armed Forces and the signatures of the respective representatives of the governorate, the GOPP and the Minister of Housing, Facilities and Urban Communities.

Strategic plans of the Egyptian cities and villages exhibit the future requirements for urbanization expansion, the projects and the economic, social, environmental and urban development plans. These are necessary to materialize sustainable development on the local level within the framework of the strategic plan of the respective governorate. These plans define the urbanized spaces of the city or village, land uses, planning and building regulations within the urban perimeters, programs, priorities, execution mechanisms and financing resources (UN-Habitat & United Nations Human Settlements Programme 2015).

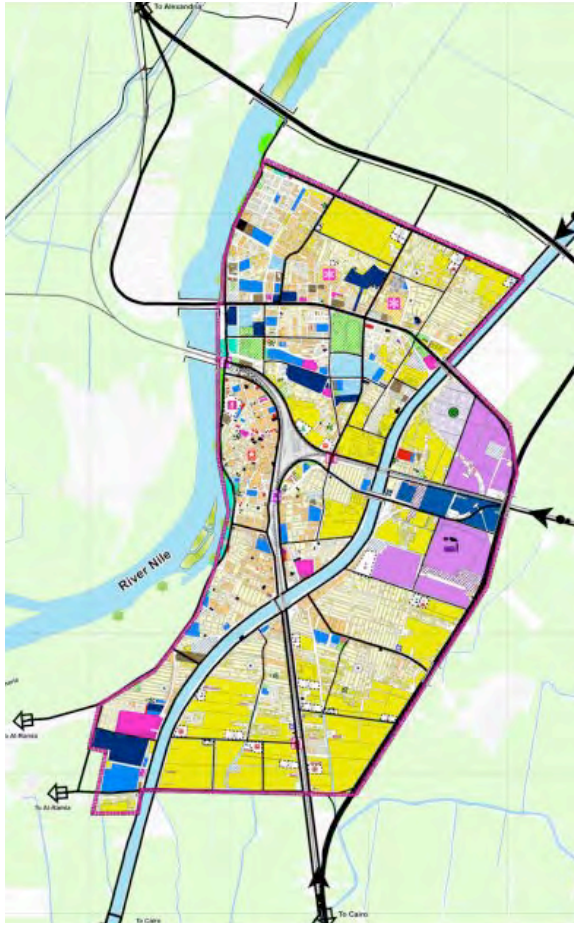


Figure 9: General Strategic Plan for Banha City.
Source: (GOPP 2014)

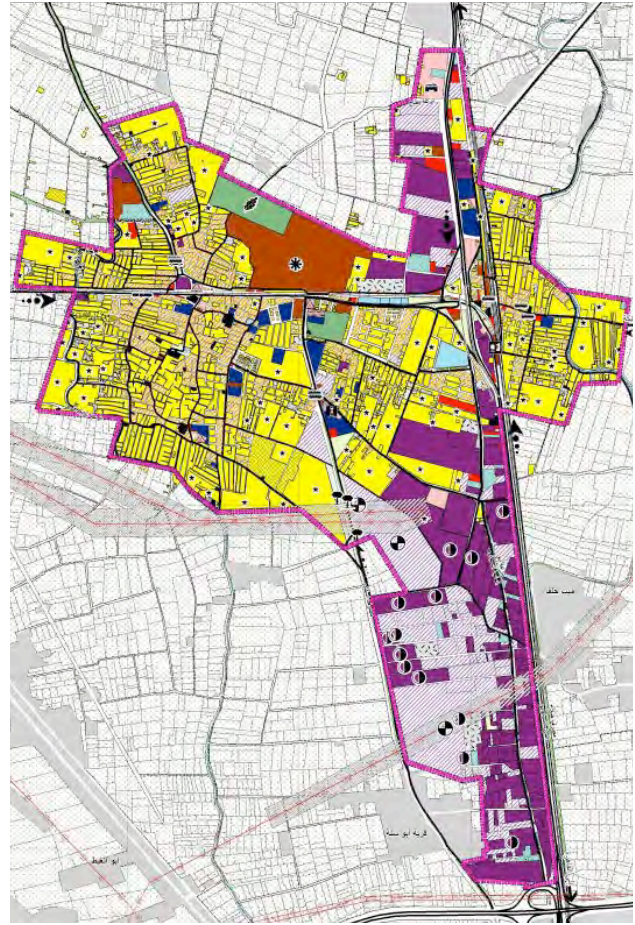


Figure 10: General Strategic Plan for Qalyub City.
Source: (GOPP 2014)

3.3.3 The Detailed Plans for Cities and Villages

The General Administration for Planning and Development (GAPD) in each governorate is entitled to prepare the detailed plans for the cities, villages and designated areas within their administrative scope. These detailed plans are developed in full accordance with the specified building requirements, building densities, land-use indications, programs and priorities of the comprehensive development projects stated by the corresponding strategic plan. Detailed plans are drafted by experts, consultants, engineering and consultancy bodies or offices registered at the GOPP, under the supervision of the respective Regional Center for Urban Planning and Development (Fahmy 2013). The executive regulations of the Building Law¹⁸ state that a detailed plan manifests a thorough examination of population, labor force, economic services and activities, land-uses, environmental, social, economic and urban factors affecting the strategic plan, in addition to detailed studies on the current and potential situations set in the framework of the strategic planning. Such details include:

¹⁸ Article 8 of the Building Law 119/2008 addresses the detailed planning (Moustafa 2015)

- Applicable requirements of the existing areas: Such as the estimated land prices as well as land-uses of both vacant and constructed plots including current uses, nature-properties (e.g., canals and ditches), existing utilities (e.g., potable water, drainage system, electricity, communication networks, paved and unpaved roads and fire extinguishing system). All types of existing buildings and land-use violations are identified. According to the type of land-use, minimum areas of lands and their dimensions are defined. Other regulations such as the recess of the front, side and rear buildings, heights of buildings, population density rate and building density are also articulated in the detailed plan.
- Applicable requirements for traffic and mobility: Roads networks and their sectors, pathways, conditions, intersections, traffic size and directions, as well as public transportation routes and capacities, should all be addressed. Also, related aspects are also articulated including parking lots, loading and unloading areas in properties and outside street boundaries, ecological requirements and treatment in terms of pollution, noise, etc.
- Applicable requirements for public facilities: These studies include the network of public utilities, their locations and potentials, as well as the areas of public parks, green spaces and voids. Also, the locations of education, recreation, health, commerce, crafts, religion and services are addressed.
- Applicable requirements for urban design: Typology of the area is to be taken for the regulations of buildings facades regarding colors, materials and architectural features. Zoning proposal (surface areas and boundaries), concordance of uses of interstitial areas between the boundaries of properties and ratios of areas cut out for public utilities such as roads, squares, green spaces or services are included.

Here, it could be concluded that detailed plans are set to exhibit and regulate the details of the areas of different land-uses on the parcel level, where all the previous studies are manifested and illustrated in the form of maps. As in the case of strategic plans, detailed plans are accompanied by a written report that varies in its form according to the city. It should include, however, an introduction that explains the purpose of area regulations and the relevant details in accordance with the city general regulations as addressed in the strategic plan. The document states that inconsistent land uses with the detailed plan are considered as existing violations at the time of the preparation of the plan. It should include an identification of the building density, economic lands value, permitted uses and services efficiency, utilities and streets in line with the framework of the general strategic plan of the city. Each area shall be described in detail, with its boundaries, permitted uses and structures, defined according to the requirements of each area. Moreover, each area should have building regulations that harmonize the area (dimensions, coverage rate, building density, road width, heights) (Fahmy 2013).



Figure 11: Sample of Detailed Plans for Egyptian Cities, the 7th Local District in Aswan City. Source: (GOPP 2014)



Figure 12: Sample for a Detailed Plan for a Village in Need. Source: (GOPP 2014)

The General Administration for Planning and Urban Development in the governorates prepares the detailed plans for cities and villages based on the general strategic planning according to the provisions of the Building Law and its Local Popular Council executive regulations¹⁹. A decree by the competent governor approving the detailed plans for downtown, re-delineation, unplanned industrial, artisan and urban expansion areas and those of peculiar value shall be issued, after the approval of the local popular council at the governorate²⁰. The provisions listed in the general and detailed strategic plans of the cities and villages shall be deemed binding building provisions as those stipulated with regard to the regulation of building works. The local units shall ensure the application of the provisions contained in all plans. Local units are not allowed to issue a site or building license in the absence of an approved detailed plan²¹ (Moustafa 2015).

¹⁹ Based on (Article 14-15 Law 119/2008) (Moustafa 2015).

²⁰ Based on (Article 16 Law 109/2008) (Moustafa 2015).

²¹ Based on (Article 99 Law 119/2008) (Fahmy 2013).

3.3.4 Observations on the Planning Procedures at the Local Level

In each governorate, the General Administration for Planning and Urban Development seem to be a major actor on the local level as it prepares the detailed plans for cities and villages based on the respective general strategic plan. Since the strategic plan is accomplished through the regional branches of the GOPP, the respective Regional Center for Urban Planning and Development could also be seen as a major actor on this level. It is important to mention that the local level of spatial planning in Egypt exhibits a potential connection between the two lines of spatial planning in Egypt: the comprehensive and the strategic. This claim could be based on the fact that strategic plans indicate certain projects to be developed. Then, the detailed plans address these projects in further details. Later, the indicated projects are suggested for implementation to the MoP, through the local Popular Councils, Executive Committees and the Governorate General Administration. If approved, the development projects get the necessary fund and find their way to the State General Planning. In other words, it could be stated that the link missing between comprehensive and strategic planning at the national level could be actually found at the local level of spatial planning.

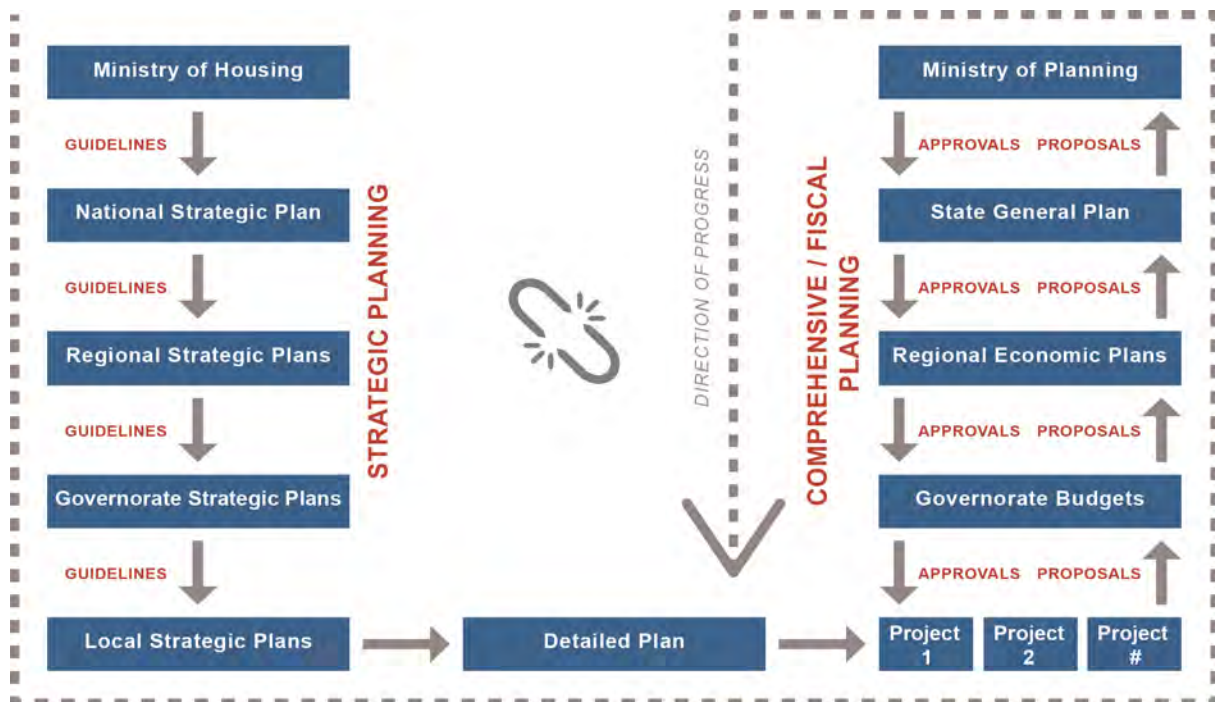


Figure 13: The Overall Progress and Instruments of Spatial Planning in Egypt. Elaborated by the FRA-UAS Team

3.4 Summary of Findings

There are two parallel lines of urban planning in Egypt that seem to work individually. The first is the state general planning at the top of the hierarchy as it is conducted by the Ministry of Planning Monitoring and Administrative Reform in a comprehensive manner. The State General Plan, which manifests the approved goals and policies of the central government, integrates all the proposed projects that were approved in terms of economic feasibility. Then, the plan is combined with the state financial budget and presented to the national parliament. When permitted by the parliament,

the State General Plan is considered to be a law binding to all public institutions. Next to the comprehensive planning in Egypt, strategic planning was introduced to the planning system later in order to add the spatial dimension to the formal planning procedures of the country. As the second planning line in Egypt, strategic planning provides plans that are, according to the Egyptian Building Law²², defined as the plans that determine the perspective vision of the urban development whether at the national, regional or governorate levels as well as the municipal levels of cities or villages. Such plans shall further identify the goals, policies, socio-economic development plans, urban environment necessary to realize the sustainable development, future needs for the urban expansion, use of different lands, implementation programs, priorities and mechanisms and sources of finance at the planning level (Moustafa 2015).

The levels of enforcement and legitimacy of central plans in relation to the planning functions undertaken at sub-national levels put more weight on the national level. For instance, the plans provided by the Ministry of Planning Monitoring and Administrative Reform are very prescriptive and leave very limited room, if any, for sub-national government to decide on how to contextualize and interpret national goals and policies (Nada 2012). The major influence, therefore, remains clear on the national level indicating a centralized and top-down planning model. Here, the main task of the municipal authorities is confined to assure the application of the strategic plans, building premises and development recommendations.

The Regional Authorities, Supreme Regional Committees are stated to be the major actors on the regional level of spatial planning in Egypt. The regional strategic plans, however, indicate rather an essential role for the GOPP, through its Regional Centers for Planning and Urban Development, as the major actor at this planning level. This is due to their function to break down the long-term national vision into mid-term strategies in the form of Regional Strategic Plans that guide the urban development of the governorates as well as cities and villages in their administrative scope.

On the local level, there are two kinds of legal land-use planning: first, strategic plans performed centrally on the three national, regional and local levels. These plans are prepared and supervised by the GOPP. And second, there are the detailed plans prepared by the planning departments of each governorate for all the cities and villages within their administrative scope (Nada 2012). The detailed plans, however, are expected to strictly adhere to the regulations provided by the corresponding strategic plans. It could be claimed that the local level of spatial planning in Egypt seems to provide a link between the comprehensive and strategic approaches to planning and urban development of the country. This is due to the fact that strategic plans at the local level instruct the detailed ones to bring the suggested projects into further details. The suggested projects are then to be recommended consequently from the local administration units of the governorate all the way up to the MoP. There, at the national level, the projects are subjects for feasibility examination. If approved, the suggested projects are then to be integrated into the preparation of the State General Plan.

²² Based on (Article 2 Law 119/2008) (UN-Habitat & United Nations Human Settlements Programme 2015).

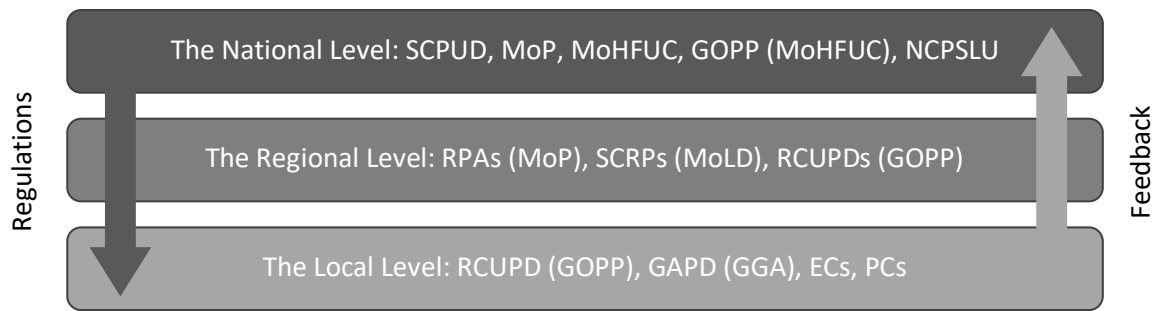


Figure 14: The Major Actors on Each Planning Level in Egypt. Elaborated by the FRA-UAS Team

4 City Dynamics and Urban Development Trends in Assiut

To achieve an understanding of what makes a city work would often require the topic to be seen from an abstract point of view. In this sense, despite the fact that every city in the world is different, they all respond to two factors: demography and functionality. From the demographic side, cities are defined as geographical sites that experience the accumulation of people. In other words, cities are the places where people permanently live and work and thus becoming propitious sites for the production of social encounters. From the functional aspect, cities are the places where several activities and mechanisms occur simultaneously. This means that cities are the places where services and goods are demanded, provided and consumed by an infinite number of users or stakeholders. If demographic and functional factors are seen and put together in one space, cities would occur as urban places where systems and activities interact and work together.

To understand the complexity hidden behind a city, it is then necessary to understand first the combination of such interactions taking part in it and how they drive its development. On its part, this development is distinguished to a large extent by three parameters: city dynamics, urban development trends and challenges or tensions. Together, they dictate its operational mechanisms, which are based on the particular reality of every city, its aspirations or goals and the methods or strategies being applied to achieve them. Therefore, this paper will discuss these parameters in order to understand Assiut's urban development and its particular way of embracing the urban future of the city in the following points:

- City dynamics
- Urban development trends
- Urban development tensions

4.1 City Dynamics

City dynamics can be defined as patterns of change or growth that are experienced in a particular place and the intensity of which they are felt. Consequently, they are particular features that distinguish each city from the rest; features that shape its reality and provide insights or clues about its future. For the purpose of this report, city dynamics will be divided into two groups: demographic and functional dynamics. The demographic dynamics are mainly related to the changes in population, addressing three different areas: birth, aging and migration. The functional dynamics are related with the city's operative system and opportunities.

4.1.1 Demographic Dynamics

As the capital of the Middle Upper Egypt Region and the governorate, the city of Assiut concentrates the largest share of the total governorate population (KOICA 2007), having 409,950 inhabitants in 2010 (Elfeky et al. 2012, p.54). Even if the city's population almost doubled between 1960 and 1976 (Table 1), the population annual growth rate has been constantly decreasing during the last decades, passing from 3.3% in 1976 (KOICA 2007, p.121) to 1.95% in 2006 (NUO & GOPP 2011). In this regard, and as a consequence of the rapid urbanization processes which are still being carried out, growth projections expect to reach a population of 458,000 persons by 2017 (KOICA 2007, p.121) and 652,583 persons by 2027 (Elfeky et al. 2012, p.54).

Table 1: Population Growth in the City of Assiut

Year	Population	Growth rate
1960	124,000	–
1976	209,000	3.30
1986	273,000	2.96
1996	343,000	2.33
2002	392,000	2.20
2012	440,000	1.20
2017	458,000	0.80

Source: (KOICA 2007, p.121)

Furthermore, the 2006 census also showed a predominantly male population (Figure 13) with a 51.8% of the total (NUO & GOPP 2011). In addition, with a 43.5% labor force of the total population in 2006 of which females don't exceed 26.9% of the total female population, there is a high dependency ratio (Elfeky et al. 2012, p.56).

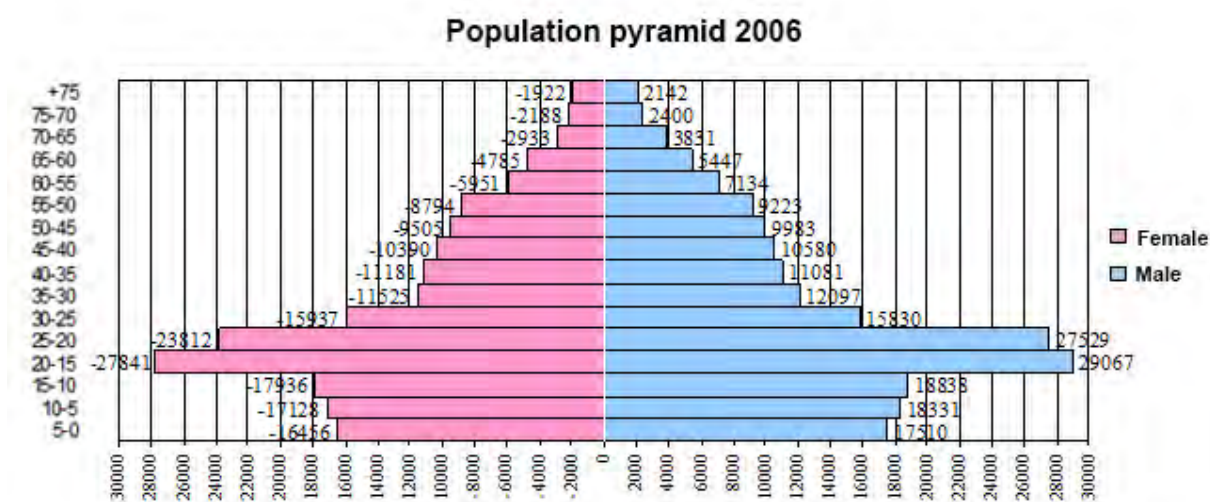


Figure 15: Population Pyramid for Assiut City, 2006
 Edited by the FRA-UAS Team from: (CPAS 2016, p.251).

As it was previously mentioned, the city of Assiut is divided into two districts or administrative sections called Qisms. The first one is located north of the Al-Ibrahimya Canal, and the second one is located west of the railway line and south of the Al-Ibrahimya Canal. As Table 2 shows, even if the 1st Qism is more populated and has a smaller area than the 2nd Qism, the residential density in the 2nd

Qism is higher. Furthermore, whereas the 1st Qism concentrates the upper-income families, the 2nd Qism houses lower income families (Table 3) (NUO & GOPP 2011).

Table 2: Assiut Population, Area and Density by Qism, 2006.

Qism	Population	Area (feddan)	Density (persons per feddan)	
			Gross Density	Residential Density
1 st Qism	220,489	905.00	244.00	327.90
2 nd Qism	168,818	1,391.00	121.00	418.30

Source: (NUO & GOPP 2011).

Table 3: Assiut Population Stratified According to Income by Qism (%), 2007

Qism	Income	
	Upper	Lower
1 st Qism	16.59	22.84
2 nd Qism	13.90	37.03

Source: (NUO & GOPP 2011).

The lack of job opportunities is another important factor influencing demographic dynamics in Assiut. Just in 1996 alone, 223,000 inhabitants left the city to look for a job in other parts of the country such as Cairo, Giza and Qalubia (KOICA 2007, p.113). Additionally and when combined with the levels of poverty present in the city, these levels of unemployment affecting especially young professionals, have also created a decline in the number of university graduates (NUO & GOPP 2011).

4.1.2 Functional Dynamic

Located in the middle of the Nile Valley, Assiut Governorate is bordered with Al-Menya Governorate to the north, Sohag Governorate to the south, New Valley Governorate to the west, and it extends eastward to the eastern mountains of Red Sea Governorate. Because of its strategic location by the Nile River, the city of Assiut is well linked with both the capital city of Cairo and with the rest of the main Egyptian cities. Means like the Cairo/Aswan and Desert roads, the Cairo/Aswan railway line and the river lines, are just some examples (Elfeky et al. 2012).

With a GDP per capita of EGP 9,400 in 2005, Assiut's main economic activity is the services sector, which employs around 54% of the labor force (Figure 15) (NUO & GOPP 2011). Secondly, is the manufacturing sector which employs almost 13% of the jobs (NUO & GOPP 2011) and is composed mainly by the food, wood and chemical industries (Elfeky et al. 2012). The development of three industrial parks in Assiut, Abnoub and Abu Teeq by the government, clustered already by 2002 around 565 plants, generating an estimate of 22,462 jobs in the previously mentioned industries (KOICA 2007, p.122). Nevertheless, the fact that most of this production is done only to be consumed in the city and not to be exported, could be considered as a reason of its moderate economic growth and its persistent poverty (NUO & GOPP 2011). Trade, construction, agriculture and transportation complete the list with 10.4%, 8.2%, 6.4% and 5.5% of the labor force in Assiut respectively (NUO & GOPP 2011).

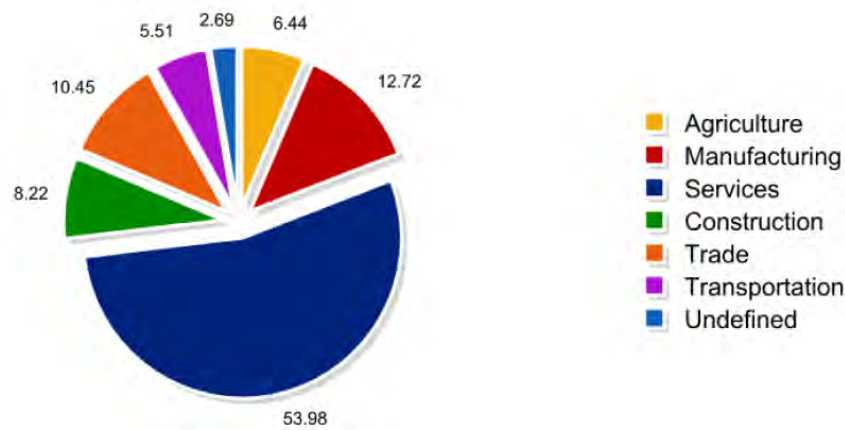


Figure 16: Employment Stratified by Economic Sector in Assiut, 2006.
Source: (NUO & GOPP 2011)

Furthermore, and since the beginning of the new century, the government of Egypt started the development of the New Assiut City to attract both population and investments outside of the already very congested Nile Valley area, as it will be further explained (KOICA 2007).

4.2 Urban Development Trends

Assiut is constantly driven by the various trends existing in the area. Such tendencies are frequently affecting the way Assiut is seen as a city by its multiple users. Urban trends are statistical data and indicators which influence and dictate development paths that cities decide to follow. All of these trends are putting pressure on development plans for Assiut, requiring the city to tackle urban issues while achieving a city's positive reputation and improving its inhabitant's quality of life. Trends in Assiut are mainly determining the employment and the housing sectors.

4.2.1 Job Emigration

As it was previously mentioned, in the city of Assiut the combination of a weak local economy with poverty and deprivation, especially in informal areas, are the main causes of the working population losses to other cities. This situation acquires special significance when one considers that according to some estimates around 61% of the total population is considered poor and there was a 14% unemployment rate in 2006 (Elfeky et al. 2012, pp.56–57).

4.2.2 Informal Settlements and Housing Shortages

One of the consequences and most significant urban issues of the rapid urbanization in Assiut has been the increase in informal settlements and housing shortages, which have not only deteriorated the built environment but also created more land use conflicts. (KOICA 2007; NUO & GOPP 2011).

Even if informality is a problem which affects the country as a whole, the cities of Cairo and Assiut have a higher percentage of poor households compared to other Egyptian cities (NUO & GOPP 2011). Scattered informal and slum areas in Assiut (Figure 16), which represent 26% of the built area of the city (NUO & GOPP 2011), contain more than 41,119 poor and low-income housing units, 32%

of the total housing in the city, which house more than 210,961 inhabitants, 54.2% of the total city's population (Elfeky et al. 2012, p.54).

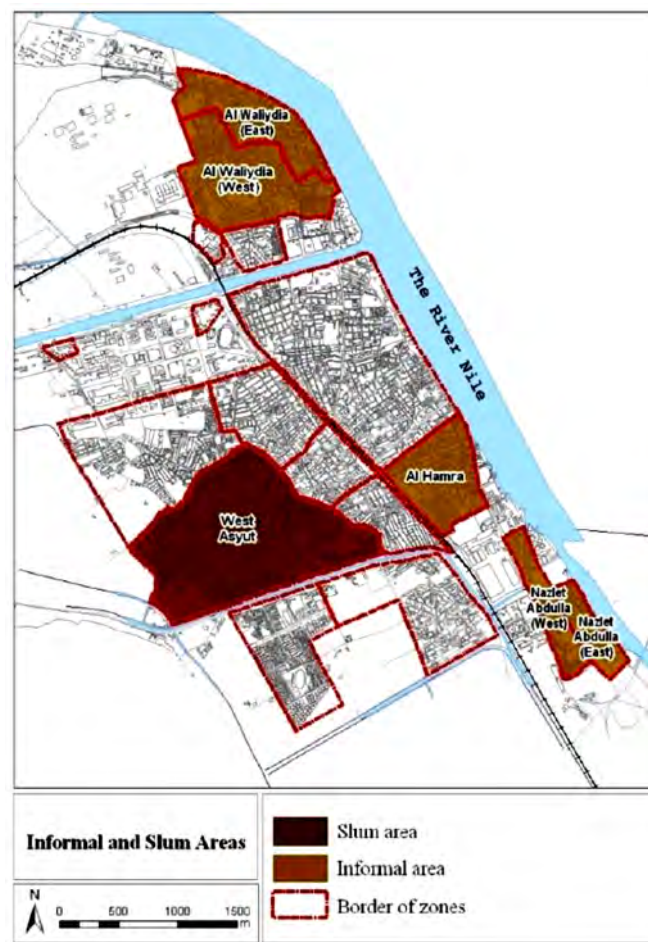


Figure 17: Informal and Slum Areas in Assiut, 2007

Source: (NUO & GOPP 2011)

Moreover, as it will be further explained, in the case of the housing shortages in Assiut it is relevant to mention that this situation it is not only related to the lack of housing units in the city but also to the high vacancy rates on the existing housing stock. Due to reasons like unaffordability for the middle and low-income sectors, location away from job opportunities, infrastructures and services, as well as for the overall lack of an attractive urban lifestyle for its inhabitants, some of the existing housing units remain vacant (NUO & GOPP 2011).

4.2.3 New Assiut City

With the aim to create a new sustainable urban society with a strong economic base to meet both national and regional goals, in 2000 the Egyptian government issued the presidential decree #194 which established the New Assiut City in a surface of 33.5 thousand acres (KOICA 2007, p.146) located 22 km to the northeast of the existing Assiut city (NUO & GOPP 2011). Targeted for housing 100,000 inhabitants in four phases by 2020 (Table 4)(KOICA 2007, p.146), the new city's main goals were set to:

- attract and draw out some inhabitants from the existing city, redistributing the population inside the region and solving some of the problems caused by the existing high densities in the mother city;
- preserve the agricultural lands from rapid urbanization by occupying the desert areas;
- provide new work opportunities, services and infrastructure, to integrate the current city with the new one in terms of industrial activities;
- increase the standard of living in the region to attract new inhabitants (KOICA 2007).

Table 4: Expected Population for the New Assiut City

Level	Population	Duration
First	15,000	To 2005
Second	40,000	To 2010
Third	70,000	To 2015
Fourth	100,000	To 2020

Source: (KOICA 2007, p.148)

This new town development, which is connected to the mother city both by road transportation and a single bus route running at 30-minute intervals (KOICA 2007, p.215), has been also considered as an opportunity to develop a new sustainable city which includes renewable energies, a proper design according to its expected capacity and a sustainable management of waste, water and transportation systems (Elfeky et al. 2012, p.57).

In 2002, the New Assiut City General Plan was published, defining an expected net density of 456 person/ha (KOICA 2007, p.215) and classifying the contemplated 2,470 acres of urban land into five zones for housing, services, industrial, green and unplanned areas as shown in Table 5 and Figure 17 (KOICA 2007, p.148).

Table 5: New Assiut City Land Use Plan

Number	Sector	Acre	Percentage of the urban zone(%)
1	Housing	542	21,9
2	Service	530	21,5
3	Industrial zone	180	7,3
4	Green zone	160	6,5
5	Unplanned zone	1,058	42,8
Total	—	2,470	100,0

Source: (KOICA 2007, p.148)



Figure 18: Land Use Plan of New Assiut City. Source: (KOICA 2007, p.149)

With regard to the housing offer in the new city, the plan contemplates the creation of a compact development with different housing typologies which, through the recapture of land value, is able to offer housing options for different socio-economic sectors, including subsidized low and middle-income housing (Table 6). Further regulations to control housing speculation are also considered (KOICA 2007).

Table 6: The Number of Planned Households in Each Household Type.

Sector		Planning housing number	Proportion
Apartment housing	Economy housing	5,000	20%
	Middle-income housing	10,000	40%
	Upper-middle-income housing	7,750	31%
Detached housing	Luxury housing	2,250	9%
Total		25,000	

Source: (KOICA 2007, p.233)

4.3 Urban Development Tensions of Assiut

After having introduced the current state of the city of Assiut in terms of its city dynamics and urban development trends, it is also important to review and have a better understanding of the city's main current urban development challenges. By reviewing these urban tensions, which rise from the confrontations of the city's daily constraints, it will be possible to identify some potential intervention fields in the spatial planning system in Assiut, through which better urban development conditions could be shaped. Based on the documents reviewed for the purpose of this work, the following urban development tensions were identified.

4.3.1 Tension 1: Top-Down Approach and Local Autonomy

Since the planning principles and criteria in Egypt are defined at a national level with a very clear top-down approach, local governments are only responsible for the execution and enforcement of the plans and guidelines detailed at national or regional levels. This existing gap between planning and implementation, which creates an inefficient and ineffective development system, is a direct consequence of the dependency and limited abilities of the local planning authorities (KOICA 2007).

A reform to the system to strengthen the local governments' planning abilities and grant them some autonomy to plan for themselves is, therefore, necessary for a more effective development system (KOICA 2007, p.V). By doing so, and by not implementing governmental plans as temporary planning solutions but rather as comprehensive planning strategies, it could be more feasible to meet the local needs and to face current and future city problems (Elfeky et al. 2012).

4.3.2 Tension 2: Urban Growth and Housing Shortages

A rapid urbanization process combined with a weak planning and monitoring system in the city has resulted in the growth and extension of slums and informal housing in all directions, affecting the high quality and fertile agricultural land close to the Nile River and water channels, and contributing to the emergence of several urban, environmental, social and economic problems in Assiut (KOICA 2007; Elfeky et al. 2012).

Even after the development of the New Assiut City, which seeks to encourage the occupation of desert land over the agricultural one, with a new and adequate supply of housing to resolve the shortage problem, low-income residents are still not able to afford the prices of the new housing units. Furthermore, the lack of frequent and effective connectivity options with this area, its disconnection with the job opportunities and the absence of an attractive urban livable environment, are some additional reasons why the New Assiut City efforts haven't been enough to solve the housing shortage problem (KOICA 2007; NUO & GOPP 2011).

As a consequence of the former, there is a noticeable high vacancy rate in the city. Being mostly located both in new formal and informal development areas where the land prices are moderate or low, an estimate of 19.9% of the total housing units in Assiut are vacant (NUO & GOPP 2011). Table 7 indicates some of the main reasons behind this vacancy rate in the city which include either arguments related to secure value or use of the dwelling in the future or aspects related to informality, lack of resources and unavailability of jobs, services, and infrastructure (NUO & GOPP 2011).

Table 7: Reasons for Vacancy in Assiut (%), 2007.

Qism	Future Use	Future Investment	Poor Quality with no Money for Repair	Don't Have Building Permits	Lack of Demand	Unavailability of Infrastructure	Unavailability of Jobs	Lack of Services	Unavailability of Transportation	Used as A Secondary House	Inheritance Conflict	Other
1 st Qism	34.5	7.7	0.45	0.0	0.5	16.6	0.0	36.6	0.0	1.7	0.0	1.5
2 nd Qism	60.9	13.5	6.28	0.0	3.4	1.4	0.0	3.2	0.0	4.3	0.4	6.3

Source: (NUO & GOPP 2011)

4.3.3 Tension 3: Urban Growth and Services Infrastructure

When referring to the infrastructure of services, all the systems which are responsible for the delivery, collection and disposal of resources and wastes are being considered. Because of the widespread poverty and high population density, some districts of the city don't even have a proper access to these basic services, creating in some cases shortages and a poor distribution throughout the city (Elfeky et al. 2012; KOICA 2007).

For the extent of this review, potable water, wastewater, electricity, solid waste and road infrastructures have been taken into account (Table 8) as in the following points:

Table 8: Connection to Utilities in Assiut (%), 2006

Qism	Water	Sewerage	Electricity	Gas
1st Qism	94.02	58.10	58.11	0.00
2nd Qism	97.43	42.05	42.05	0.00

Source: (NUO & GOPP 2011)

- ***Potable Water Infrastructure***

In the case of potable water, even if it is the most connected utility (Table 8), several of the city's residential areas are still without connection (NUO & GOPP 2011).

- ***Wastewater Infrastructure***

The city lacks an integrated scheme for wastewater management, with only an estimate of 82% of the dwellings are connected to the sanitary network (NUO & GOPP 2011) and presenting a 50% loss of sewage through leaks in different locations (KOICA 2007, p.133). This situation is then aggravated when these improperly treated wastes pollute the water bodies around Assiut, jeopardizing the inhabitant's health and food production (NUO & GOPP 2011; KOICA 2007).

- ***Electricity Infrastructure***

With regard to electricity connectivity, whereas 58% of the residential units in the 1st Qism were connected with this service only 42% of the units in the 2nd Qism did so (Table 8) (NUO & GOPP 2011). In addition, there is also no natural gas network at the city level (NUO & GOPP 2011).

- ***Solid Waste Infrastructure***

The management of the solid waste by the local administration is not satisfactory either. The daily 160 to 200 tons of waste which are generated in Assiut are managed by the city with the aid of some door to door informal collection and sorting of scavengers (NUO & GOPP 2011). However, uncollected solid wastes accumulate on the sidewalks and vacant lots throughout the city, creating not only visual problems but also habitats for rodents and insects, sources of air pollution and possible fire hazards. In addition, Assiut does not have a sanitary landfill, collecting and disposing its solid wastes in open-air uncontrolled dumpsites 15km or 24km away from the city (NUO & GOPP 2011).

- ***Road Infrastructure***

When it comes to the road infrastructure in Assiut, there is a lack of paving, lighting, maintenance, and an inadequate width on most of the roads of the city (Elfeky et al. 2012). At the same time, the overall road system in Assiut doesn't have a clear functional layout (KOICA 2007). On one side, only 65% of the streets of the city are paved (Figure 18), mostly in formal and rich neighborhoods (Table 9) (NUO & GOPP 2011). On the other, several of the paved streets of the 2nd Qism have a width of less than five meters, insufficient for extending wastewater networks or for allowing the way for emergency vehicles such as fire-trucks and ambulances (NUO & GOPP 2011). Furthermore, street parking is neither organized nor planned (Elfeky et al. 2012).

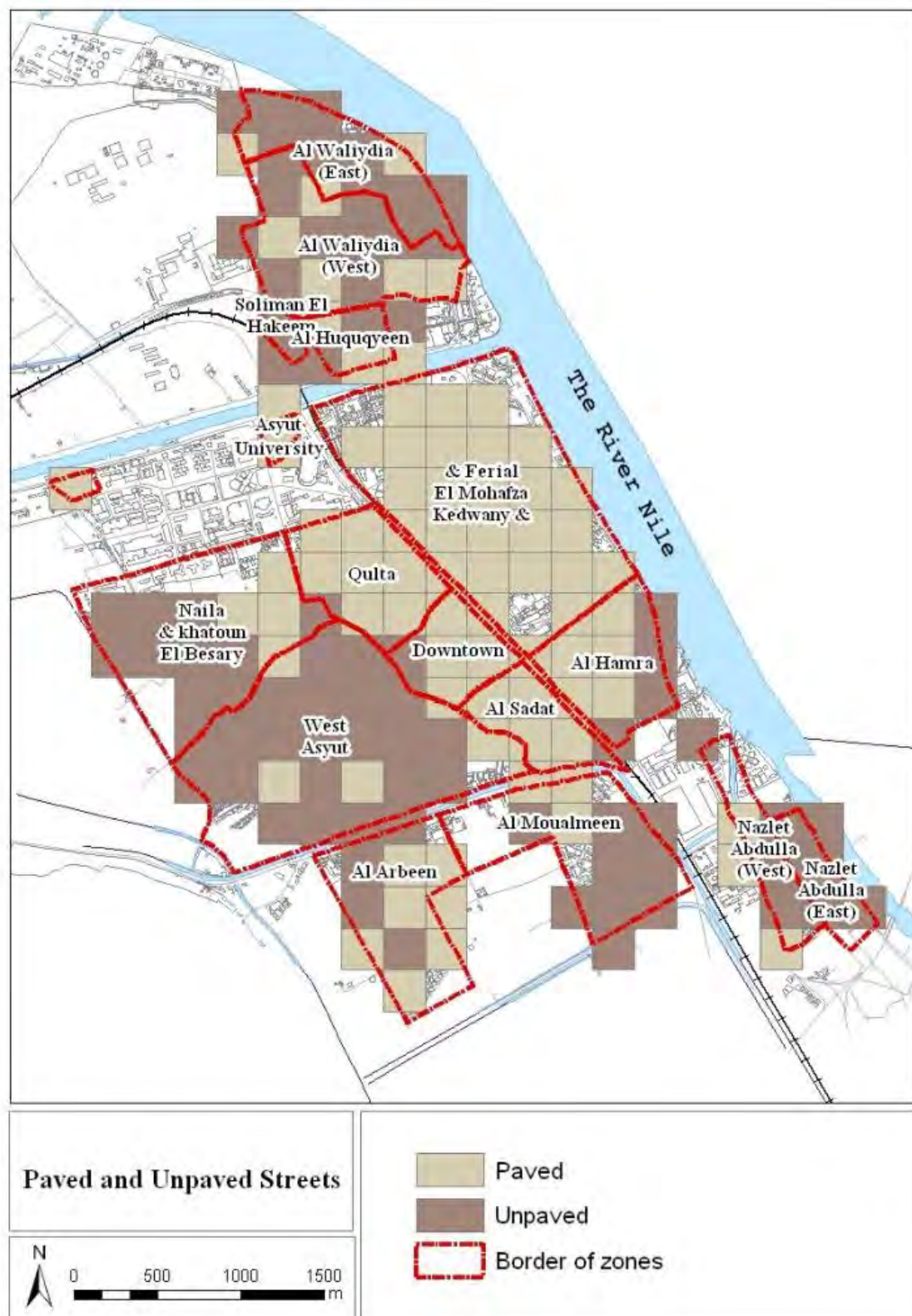


Figure 19: Paved and Unpaved Streets in Assiut, 2006
 Edited by the Rapid Planning Team from: (NUO & GOPP 2011).

Table 9: Streets Less than Five Meters Wide and Paved Streets (%), 2007.

Qism	Narrow Roads (less than 5 m)	Paved Streets
1st Qism	4.74	65.52
2nd Qism	14.44	52.40

Source: (NUO & GOPP 2011)

4.3.4 Tension 4: Urban Growth and Social Services

With regard to the levels of satisfaction with the educational and health services in Assiut, there is a clear distinction between the formal and the informal areas of the city (Figures 19 and 20). Whereas the interviewed people living in formal areas indicated to be satisfied with these services, the ones living in informal, slums, or poor formal areas, who can't afford the services of the private sector and are not always reached by voluntary and non-profit organizations, indicated to be unsatisfied with them. Additionally, and as a consequence of the land use conflicts of the rapid urbanization, the least satisfactory type of service evaluated for both type of areas in the city, was the recreational one (NUO & GOPP 2011).

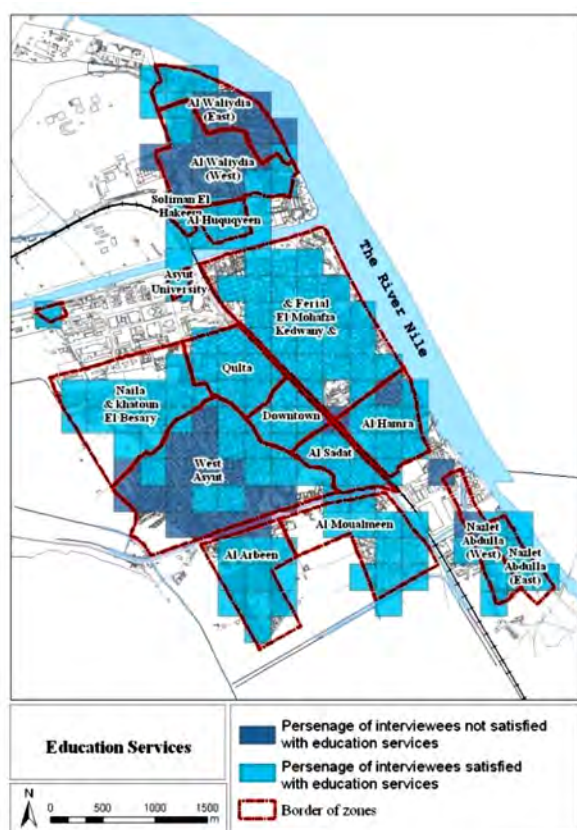


Figure 20: Satisfaction with Educational Services, 2007. Source: (NUO & GOPP 2011)

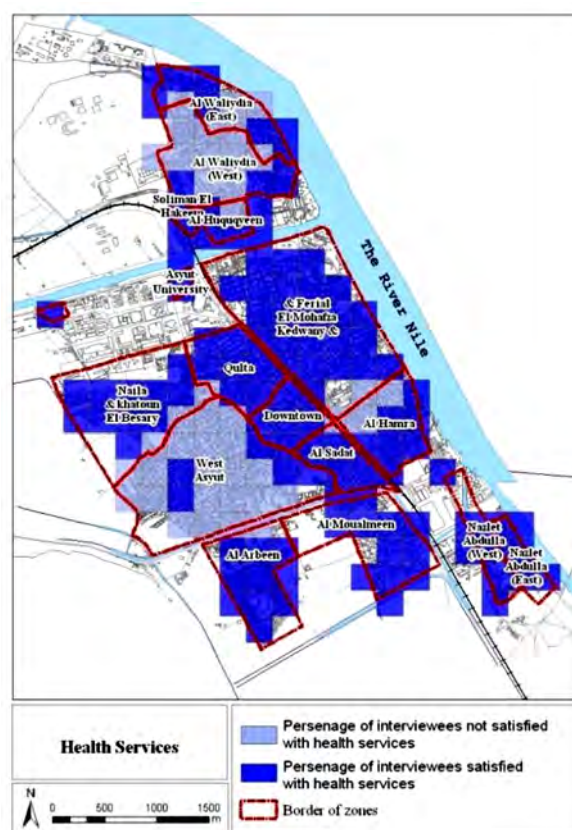


Figure 21: Satisfaction with Health Services, 2007. Source: (NUO & GOPP 2011)

In quantitative terms, according to the city's strategic projections for 2027, there will be a need to add 21 new schools with an area of 16.04 acres, two new youth and sports centers with an area of two acres (Elfeky et al. 2012, p.54), and 100 new hospital beds (NUO & GOPP 2011).

4.3.5 Tension 5: Urban Growth and Natural Environment

Since the Egyptian government doesn't give enough importance to the sustainable development criteria, most Egyptian cities have not only been heavily increasing their consumption of natural resources but also increasing their pollution levels, severely damaging their environment. The former has been directly reflected in the deterioration of the urban activities and social awareness of the community which, at the same time, has indicated to be unsatisfied with the quality of their environment (Table 10) (Elfeky et al. 2012).

Table 10: Persons Unsatisfied with the Quality of the Environment in Assiut (%), 2007

Qism	Water	Air	Noise	Solid waste collection
1st Qism	3.45	3.88	10.78	10.30
2nd Qism	17.65	27.81	49.20	30.00

Source: (NUO & GOPP 2011)

Concerning water, the main pollutants of the Nile river come from the direct disposal of cooling water from the Al-Hamra power plant, the output of dredging, from the dumping of solid waste and from the agricultural drainage with high levels of fertilizers and pesticides. In the case of the air pollution, gases emitted by traffic congestion, manufacturing and industrial activities like oil refineries and power plants, as well as the production of fertilizers, sugar and cement, the burning of agricultural and household wastes, and the desert, are the main pollution sources. Moreover, soil pollution is caused by the use and disposal of pesticides, fertilizers and industrial waste on the land, deteriorating its quality, productivity and fertility. Finally, noise pollution is another nuisance also present in the city, which is mainly caused by the mix of non-complimentary land uses with residential areas (Elfeky et al. 2012; NUO & GOPP 2011).

4.3.6 Tension 6: Urban Growth and Data Collection

In Assiut, the institutional urban planning and regulation setup faces many difficulties. The lack of a comprehensive and up-to-date information and registration system with accurate data, the multiplicity of implementing organizations with no coordination, cultural constraints of not sharing information, no transparency in decision-making processes and no participatory planning, are just some of the limitations that the authorities face on the decision-making and monitoring processes. Egypt is still on its way to moving from a design based approach to planning towards using market simulation models (NUO & GOPP 2011).

The former takes on particular importance when it comes to informality. According to some estimations, of the entire urban housing and land, only 4% to 5% is officially registered (KOICA 2007, p.X), and only around 77.3% of the existing buildings in the city has a building license (NUO & GOPP 2011). Without the proper registration and data collection systems as well as credible quantitative and qualitative data about those informal settlements, it's almost impossible for the government to give its citizens land access for formal housing development and to protect the valuable agricultural land. In this regard, clear definitions for data collection of settlements for the collaboration of non-governmental organizations, the implementation of GIS-based information systems and clear housing and land ownership registers, could improve and foster more organized development and decision-making processes (KOICA 2007; NUO & GOPP 2011).

4.3.7 Tension 7: Urban Barriers and City Integration

Being located on the banks of the Nile River, Assiut has some natural and artificial urban barriers which have limited its growth and affected the direction of the city's potential development. On the first place, the railway line divides the city into east and west, concentrating the west part most of the informal settlements and old buildings. Then, whereas the Al-Ibrahimya Canal separates the city from its northern suburban districts, the Malah Canal separates it from its southern suburban districts. Finally, the Nile river surrounds the city from the east and north directions (Figure 21) (KOICA 2007; Mohamed & Brown 2009).



Figure 22: Map of Assiut City. Source: (Mohamed & Brown 2009, p.2)

In addition to the former, the small number of links and connecting routes among the different districts of the city increases the traffic and congestion problems, concentrating all the trips in the city center district, which functions as the main node of the city structure where all the displacements pass through (Figure 22). New links to connect the currently incompatible urban patterns are needed to overcome the existing urban barriers and both physically and functionality integrate the different city districts (Mohamed & Brown 2009).

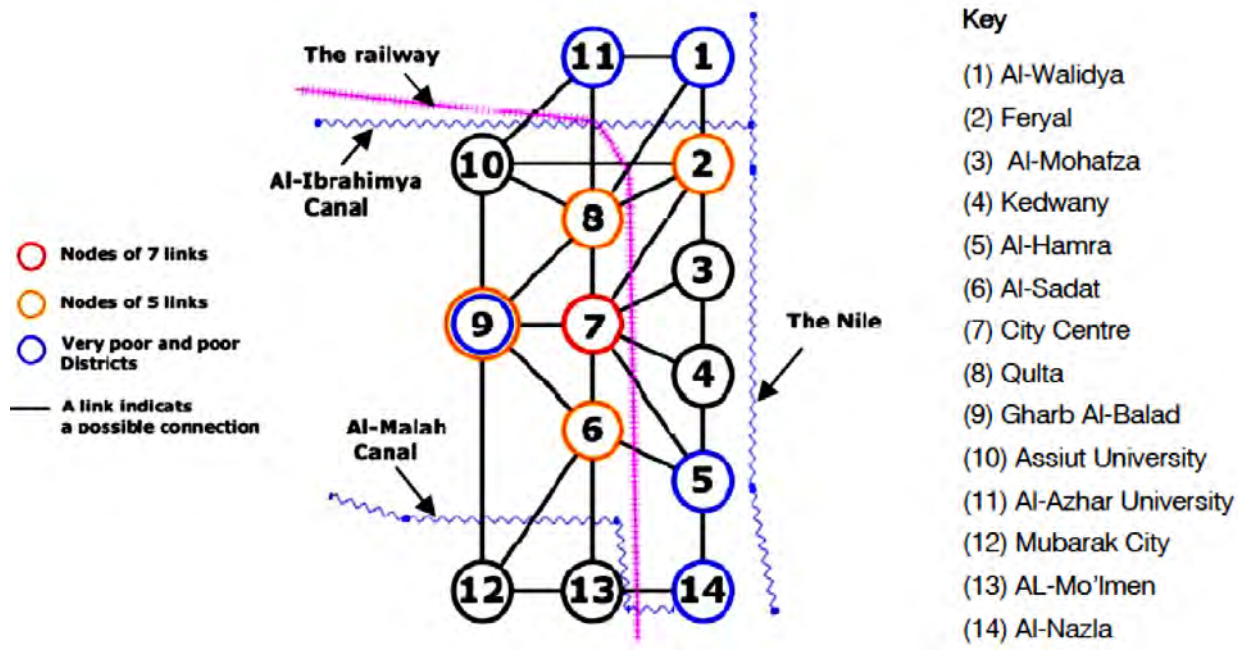


Figure 23: Graph Map of Connectivity Among Different Districts in Assiut.
Source: (Mohamed & Brown 2009, p.10)

5 Assiut's Urban Development Goals and Visions

As shown in the review of the administrative system of spatial planning that governs city planning and urban development in Assiut, all major planning procedures are considered to be strongly regulated under the mandate of the higher planning levels. It could be addressed, therefore, that urban visions and formal development goals of the Egyptian cities, like Assiut, are defined to a large extent at the national level. Central institutions in Cairo such as the Ministry of Planning Monitoring and Administrative reform as well as the Ministry of Housing, Facilities and Urban Communities and their affiliated regional branches are key stakeholders concerning the future of urban development at the local level of Assiut as well as all Egyptian cities. The urban vision and formal development goals of Assiut are expected, therefore, to be strongly related to the common urban development vision and goals stated by the central government.

Consequently, in addition to the local level, this review will also scheme through the leading visions and development goals approved at the national as well as the regional levels, since these are legally binding for the local urban development agenda of the city of Assiut. In the following planning levels, this paper will review the major development visions influencing the local development future of Assiut:

5.1 The Urban Vision and Development Goals on the National level

The "National Strategic Plan for Urban Development of Egypt 2052" was initiated to deal with the most pressing challenges and draw the guidelines for the future development of the country as a whole. The (GOPP 2014) report states that the key challenges regarding the future of national development were identified as in the following points:

- Challenges regarding the urban population of the country: The topics of poverty (25% of the population is below the poverty line), illiteracy (30% of the total population), unemployment (13% of the total labor force), exponential population growth (doubling population within the next 40 years) and social disparities in income, standards of living and basic services among the different regions of the country were addressed as the key challenges regarding the population.
- Challenges regarding the national Economy: Scarcity of exhaustible natural resources such as groundwater, oil and natural gas are addressed as burdens hindering the development of the national economy.
- Challenges regarding spatial development: The concentration of population (5.7% of the total area of Egypt), urban sprawl and erosion of agricultural lands and the extent of land-suitability for development were addressed as the key challenges of spatial development in Egypt.

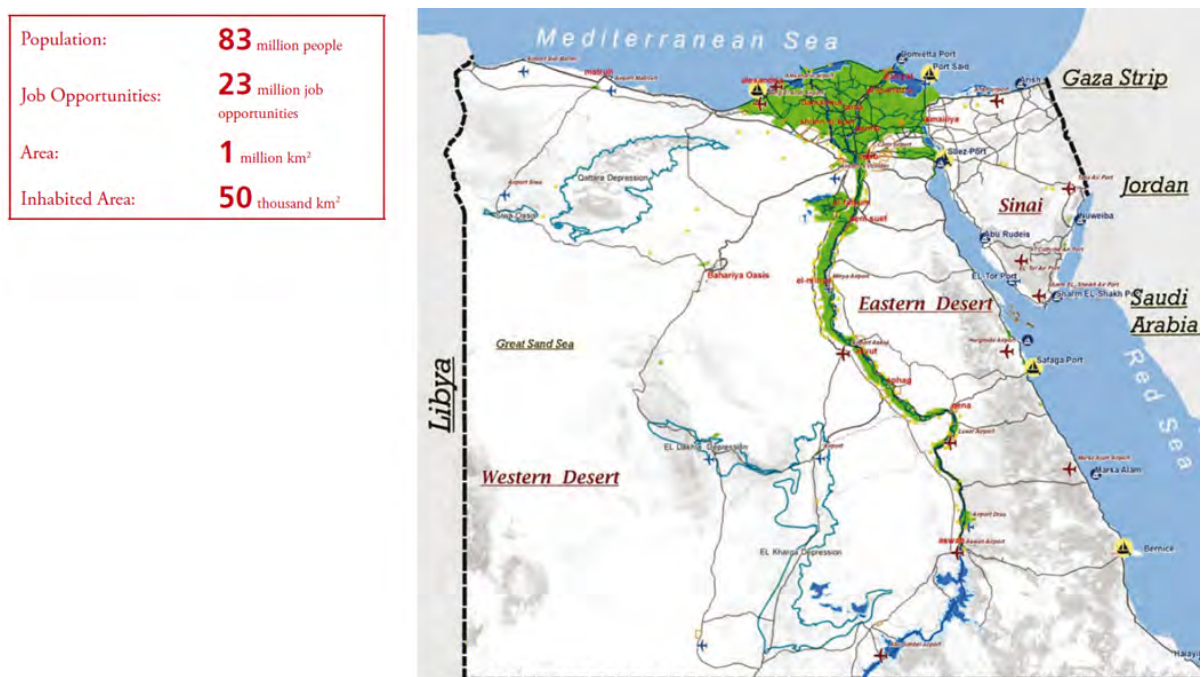


Figure 24: The Situation of Egypt in 2011. Source: (GOPP 2012)

According to the (GOPP 2012; GOPP 2014) reports, the National Strategic Plan for Urban Development, based on the previously identified key challenges, addresses three major objectives of the future urban development as in the following points:

- Economic efficiency: The future development aims at advancing the country, increasing its competitiveness and diversifying its economic bases while taking the advantage of available knowledge and technologies. An optimized exploitation of resources in this sense would require development plans for agriculture, industry, commerce and production, as well as for the provision of services.
- Social equity and justice: The future development aims at poverty reduction and harmonized concentrations of urban population through a balanced social and spatial development that is

accessible to the whole population. Practically, this means that there is a need to redraw the administrative boundaries of the governorates as well as the economic regions. This is to allow a more sensible distribution of funds and finances among the urban agglomerations of the country as the poor areas would be incorporated with the areas of more resources and assets for development. Further, the national plan addresses that improving the quality of life for the citizens as well as supporting the democratic atmosphere would help accelerate the desired future development.

- Eliminated natural and security risks: the future development aims at minimizing natural hazards as well as internal and external safety risks.

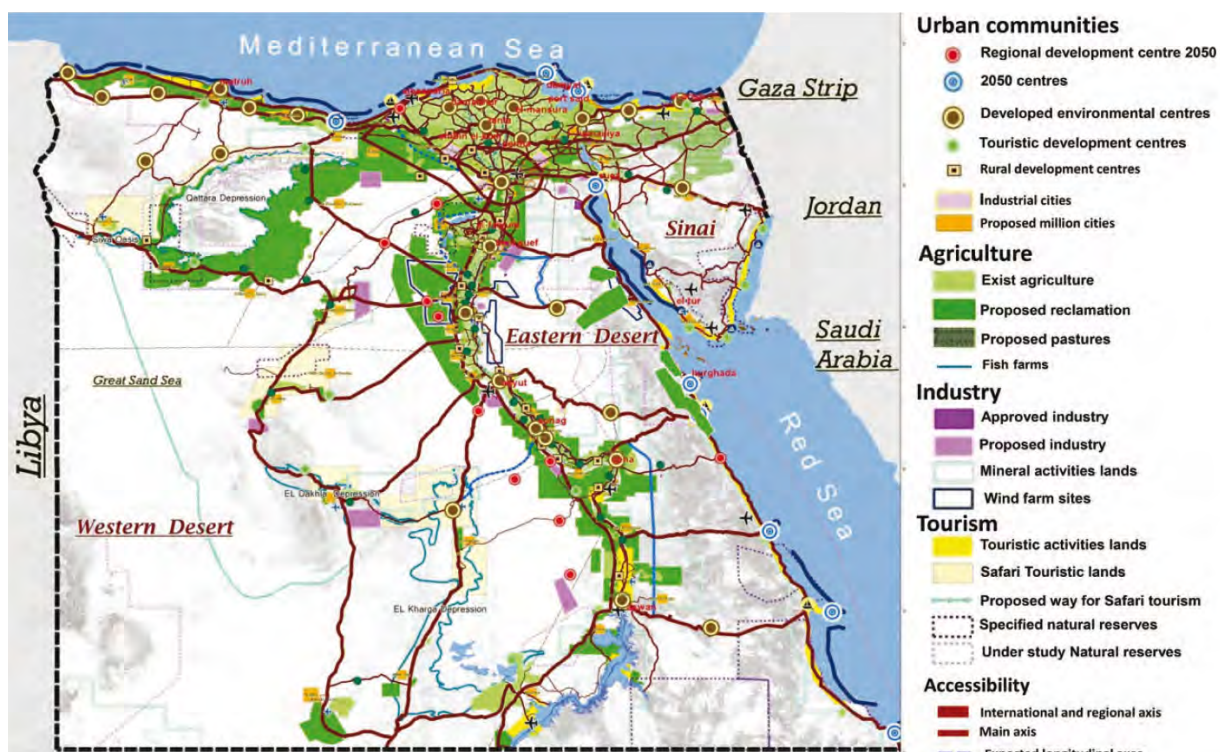


Figure 25: Egypt's National Plan 2052. Source: (GOPP 2012)

To enforce the principle of decentralization in the management and implementation of large development projects and to achieve development balance all over the Republic, two major inclinations were considered to be vital in the strategic national plan. The first is to turn into an integrative planning model that engages the sector-oriented planning processes to the overall urban planning procedure. And, the second is to re-divide the country into new development regions which would achieve a better integration among the different regions and governorates of the country. Each newly formed region is then to be assigned with a development role as well as a share of the expected population growth, which would lead to dislocating the population concentrations in the Delta, the Nile Valley and their adjacent areas. This means that urbanization should be introduced in new development centers and poles capable of attracting the population and thus decreasing pressure and overload in the regions with high centralization of activities and services. In this context, the proposed Central Upper Region that includes Assiut is expected to host about 11.8% of the total expected population of Egypt in 2052. The region is also defined as an agricultural, industrial

and touristic region as well as a center of new energy generation and seawater desalination (GOPP 2012).

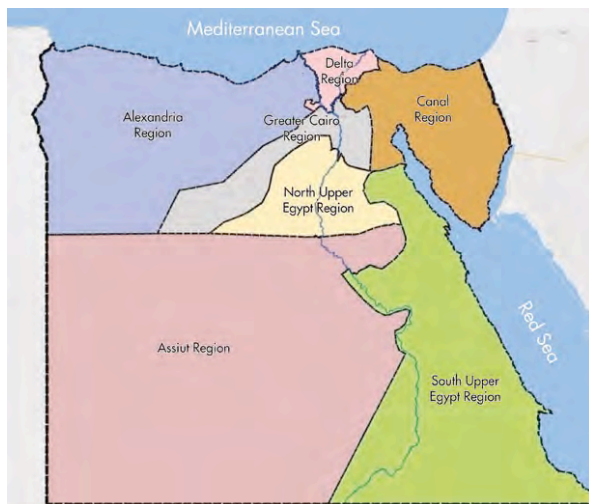


Figure 26: The Division of Egypt's Regions as Stated in 2012. Source: (GOPP 2012)

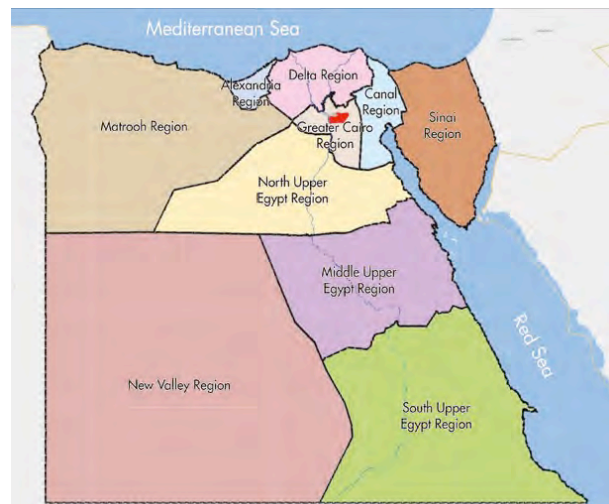


Figure 27: The Suggested Division of Egypt's Regions for 2052. Source: (GOPP 2012)

The implementation of the proposed development projects, within the frameworks of the national strategic plan, should be done gradually and in accordance with pre-defined priorities and implementation phases. Investments, in this manner, will be directed optimally towards supporting the development plans on the medium and long terms. Based on that, the (GOPP 2012) report addresses that the National Strategic Plan for Urban Development proposes the following five priority projects of spatial development to be implemented in the first five years²³:

- The spatial urban development of Suez Canal Axis as an international logistics and industrial center: This includes the development of East Port Said Region, the Technology Valley, New Ismailia Al-Amal District; and the Northwest of the Suez Gulf.
- The spatial urban development of Northern and Central Upper Egypt: This includes the development of the Golden Triangle (The Mining Industrial Complex Safaga, Al-Qusayr and Qena) as an international mining area, the Upper Egypt-Red Sea Corridor as well as the Corridor of Minya, Al-Bowaity, Siwa and the Western Borders (cultivating 100,000 feddans in the Western Plain of Minya).
- The spatial urban development of the North-west Coast and its desert hinterland: This includes the establishment of an urban settlement and international tourist center in El-Alamein, the development of the North-west Coast and its desert hinterland as a destination for international tourism and the development of the urban depression of area Qattara.
- The spatial urban development of Sinai: This includes the industrial development in Central Sinai, the touristic development in South Sinai, the reclamation of 400,000 feddans and the establishment of development-supporting projects in North Sinai.

²³ These priority projects were planned to be ready in 2017 (GOPP 2012).

- Development of the South of Egypt: This includes the development of the High Dam Lake and Toshka region as well as the area of Halayeb and Shalateen, Ras-Hadarba and Al-Owainat.

Since these priority projects are correlated with the recently proposed development regions, they constitute the basis for the regional development plans and visions on the next level. Out of these five priority projects, the (GOPP 2012) report stresses that the three spatial development areas of the Suez Canal Corridor Region, the North-west Coast Region together with its desert hinterland and the Northern and Central Upper Egypt Region are particularly important. This is due to their potential capability to attract the future urban population and investments, which would significantly help re-draw the current unbalanced Egyptian urban structure, achieve economic prosperity and ease the pressure on the capital region.

It could be concluded, therefore, that the National Strategic Plan for Urban Development aims at accommodating the expected population increase within the next four decades and achieving a population balance that falls in line with the capacity of each region, with the objective of achieving social justice, decreasing unequal distribution of resources among different regions, providing job opportunities in the proposed areas of development and achieving quality of life (GOPP 2012).

5.2 The Urban Vision and Development Goals on the Regional Level

In order to set a local agenda for the future urban development of the Egyptian governorates, cities and villages, strategic regional development plans were based on the five priority projects of spatial development addressed in the National Strategic Plan for Urban Development²⁴. They were envisioned to be the intermediate interface that drives urban development on the local level in complete coherence with the planning vision and urban development goals set at the national level of spatial planning. It is, therefore, the nature of these regional visions and their development goals to be based on the central policy of national development of the whole country. In this case, this means that the previously mentioned development goals of the National Strategic Plan for Urban Development of Egypt 2052 also constitute the overarching purpose of the urban development visions on the regional level of planning in the country.

At this level, the (GOPP 2014) report addresses that these regional strategic plans are entitled to introduce official development strategies that seek to achieve the following points:

- Striking a development balance amongst the regions in the country: On this basis, regional visions should control and contain the development of the congested regions. And, on the other hand, these plans should indicate more development for the regions of urban depression. Reversing urban polarization in Egypt and declining internal-migration rates to both Cairo and Alexandria are goals stated by the GOPP on the regional level. These goals require lower rates of growth in the congested regions such as that of Cairo and Alexandria.

²⁴ The regional development visions that could be identified in the (GOPP 2014) report include the Strategic Development Plan of the Southern Egypt, Development Strategy for the North Coast of the Nile Delta, Development Strategy for the Northwestern Coast, Development strategy for the Upper Egypt-Red Sea axis (including Assiut), Development strategy of Cairo-Ismailia Road, Developing Ring Road intersection with Cairo-Ismailia Desert Road, Development strategy of Cairo-Alexandria Road and Strategic Plan of Greater Cairo Region.

Also, depressed regions such as that of Upper Egypt, including the Region of Assiut, should get a fairer share of investments and better employment offers. Increasing attractiveness of currently depressed regions would secure bigger shares of the expected population of the future.

- Increasing the total sum of populated areas: In order to host the expected population growth, the total sum of the populated areas of the country should be increased. Regional strategic plans, therefore, should aim at attracting investments and population to new development areas as well as development axes. As stated by the GOPP, the regional strategic plans introduce new urban development areas outside the Nile Valley and the Delta. New development axis along the coasts of the Mediterranean, the Red Sea and the Gulfs of Suez and Aqaba are also envisioned to expand the populated five percent of the gross area of Egypt to exceed 22 percent of the gross area (GOPP 2014).
- Enhancing the economy: Regional Plans aim to attract foreign investments, to diversify the economic basis of the region, to transform the available human resources into human capitals to make up for lack of natural resources and to liberalize the economy (GOPP 2014).
- Protecting the environment: Regional plans are seen as urban planning measures that should also integrate and complement national efforts and interests to protect, conserve and regenerate local ecosystems.
- Upgrading the slums and deteriorated areas: The regional plans should address such situations through an integrated development approach that allows a full cooperation with the development partners and relevant stakeholders.

As stated before, the Northern and Central Upper Egypt Regions are among the top three priority projects of spatial development in the country. Therefore, the corresponding “Development Strategy for the Upper Egypt - Red Sea Axis” was initiated as one of the several regional development plans to lead the regional development in accordance with the guidelines and goals provided at the national level. Since this plan includes the Governorate of Assiut within its administrative scope, it is legally binding for the planning procedures within the governorate as well as the city of Assiut itself. Further elaboration on this regional plan, in particular, is then required for the purpose of this paper. Here, according to the (GOPP 2014) report, the Development Strategy for the Upper Egypt - Red Sea Axis aims at achieving the following points:

- Connecting the Nile Valley with the Red Sea: Providing connecting routes would further allow the integration of potential destinations and touristic development in the Red Sea and Upper Egypt regions. Further, this would allow a smoother mobility of the workforce, keeping in mind that many jobs in the tourism sector on the Red Sea coast are covered by employees coming from Upper Egypt.
- Urbanization of the Eastern Desert: The routes connecting the cities along the Nile Valley with the touristic developments along the Red Sea could be further utilized to develop the Eastern Desert. As urbanized corridors, these horizontal axes could help form nuclei of new urban accumulations. This region could be the location of manufacturing, mining and tourism. These

economic activities could then help the region gain private and foreign investments, generate job opportunities and thus attract a bigger share of the expected population growth.

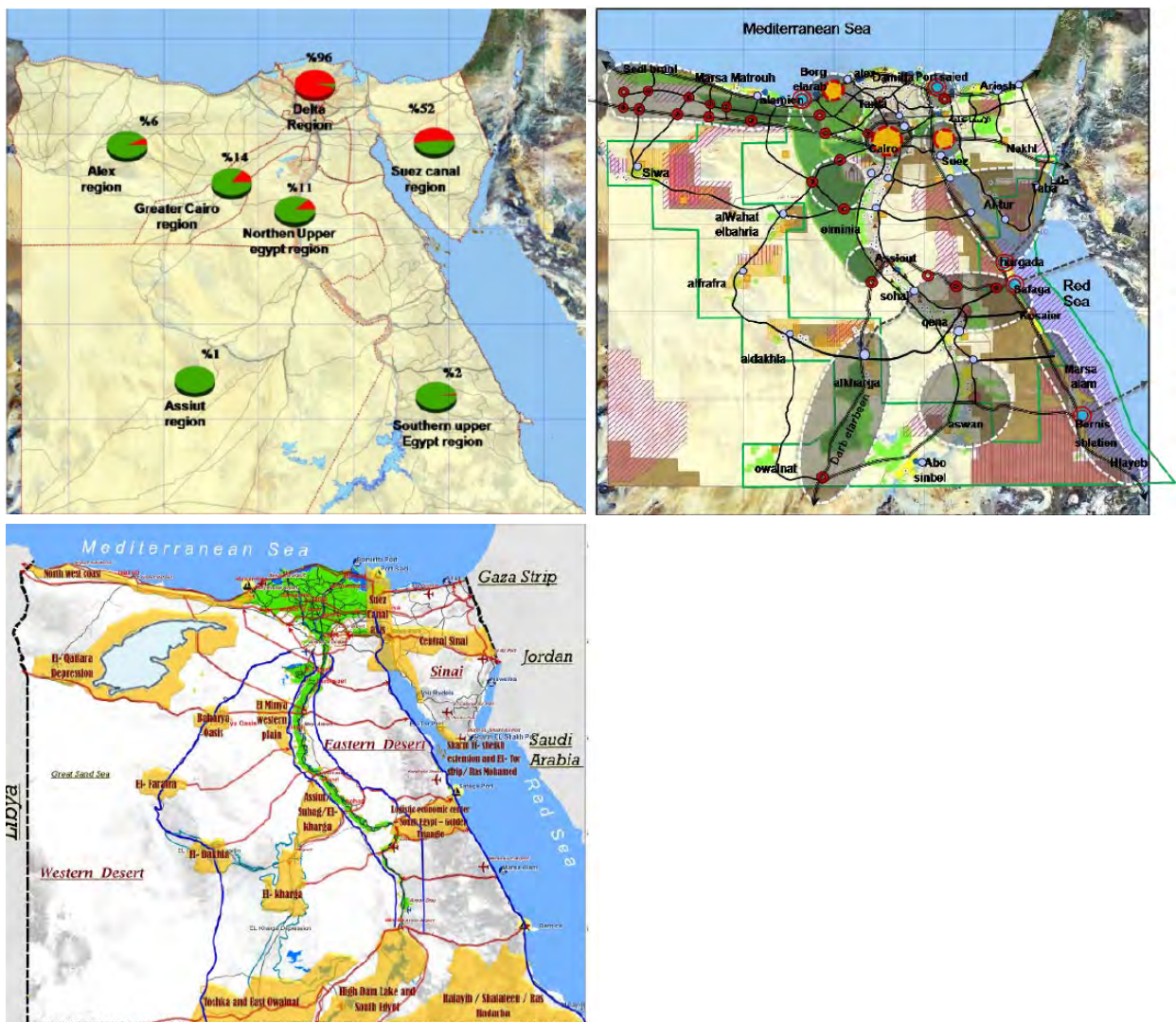


Figure 28: Prioritized Development Areas in Egypt. Source: (GOPP 2014, p.11)

The (GOPP 2014) report continues to mention that once the necessary official approval by the Cabinet is granted, the mobilization of resources will be initiated and the mechanisms necessary for implementation will be defined. Detailed analyses will follow to assure a smooth implementation of the plan.

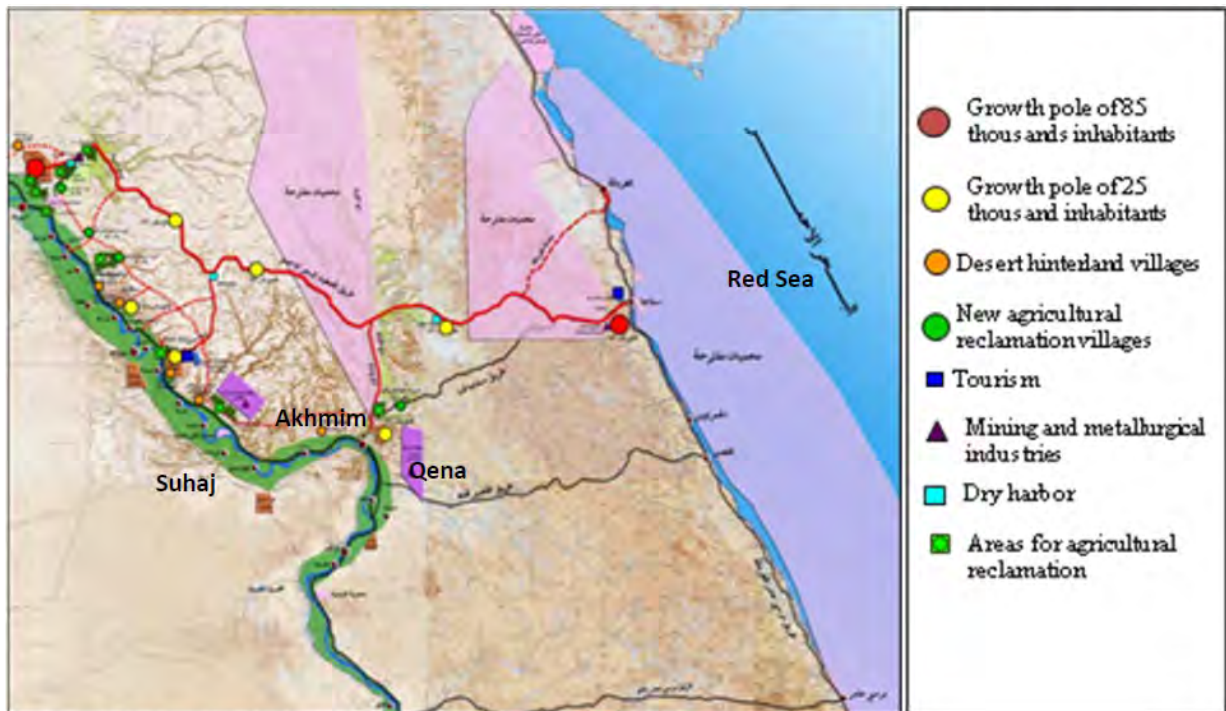


Figure 29: Regional Plan for Upper Egypt-Red Sea Axes. Source: (GOPP 2014, p.17)

It could be concluded that regional plans are the essential and constituting parts of the national plan itself, as they seem to break down the overall national vision into smaller fields of action in both terms of geography and time of implementation. Regional plans, therefore, address certain development areas of the country. And, unlike the long-term national vision, they address usually mid-term development visions.

5.3 The Urban Vision and Development Goals on the Local Level

At this level of spatial planning, the "Preparatory Project of the General and Detailed Strategic Plan for Assiut City" documented in the (CPAS 2016) report is considered to be the leading project to shape the official urban development strategy of the city and prepare the necessary development plans accordingly. It is, therefore, the major formal source addressing the vision for the future urban development of Assiut. As a major outcome of this project, the strategic and detailed development plans will then manifest the adopted development measures and control the urban progress of the city in pursuance of the urban vision and development goals articulated in the preparation process. These local development plans are, as mentioned, bound by the development objectives and guidelines provided at the regional as well as the national levels of spatial planning.

On this basis, the (CPAS 2016) report states that the preparatory project envisages Assiut as "*a city that is the capital of Upper Egypt, a city that has a major influence on the national as well as the international levels, a city that offers a good urban atmosphere for its citizens and a city that also offers a good climate for investments and economic activities*". This overarching development vision has been agreed on and set together with the development partners and associated stakeholders in the city in order to establish a common understanding of the desired outcome of the development in the long term. In order to break down this overall statement into tangible sets of development goals,

potential projects and concrete fields of action, three major strategic aspects were derived from the vision as in the following points:

- The status and position of Assiut: As a stature and competitive city on the regional, national and international levels, the city is conceived to assure its position as the capital of Upper Egypt that is beautiful, well planned and very attractive for people, activities and businesses. The city, therefore, should provide all services and ensure the welfare of its citizens. Raising income levels, in this sense, are seen to provide social and economic security and reduce the migrating population. Under this strategic aspect, Assiut is envisaged to be a productive city that rather adds to the national GDP and vitalizes its region through employment and import of raw materials for national and international trading. As a center for education, commerce, health and engineering, Assiut is also perceived to utilize its universities to enhance scientific research and establish a “smart village” to accommodate scientific activities.
- The image and urban atmosphere of Assiut: This strategic aspect of the vision requires focused efforts on a city planning that attends to the needs of the citizens and improves the image and urban environment of the city. Here, unified facades, defined heights, paved streets as well as clean and protected sidewalks are seen to be the features a beautiful Assiut. The city should offer all basic services such as electricity, clean water, sewage, communication, natural gas and a reliable network of roads. The city is envisioned to be divided into residential, service and industrial areas that are self-sufficient, in compliance with the designing and planning standards. It is also envisioned as a developed city, where urban informality is a handled topic and deteriorated areas are properly rehabilitated. For the healthy environment of the future, the city should improve its housing, mobility and traffic conditions, relocate all unfitting activities and continuously maintain its basic services and infrastructure. Additionally, rapid decision-making processes regarding the urban perimeters of the city and the completion of public facilities should be the key features of local administration in Assiut of the future.
- The socio-economic and living conditions of Assiut: Under this aspect, the overall development vision indicates a complete attention to cope with unemployment. It is, after all, considered to be one of the major problems challenging the living conditions of the population as well as the attractiveness of the city. Assiut is envisioned to be a city, where unemployment is eliminated and work opportunities are sufficient. Affordable housing provided by competitive housing associations, extended job offers provided by daring industrial projects and available public as well as basic services should be the key features of Assiut in the future. These features would lead to a reduced rates of internal and external urban immigration in the governorate and reflect positively on the socio-economic situation as well as society and family planning. Additionally, Assiut is envisioned to provide its citizens with sufficient capacity building and public awareness regarding public participation, city cleanliness and public facilities.

These three strategic aspects lead the preparation processes of the strategic and detailed plans of Assiut. They also represent three sets of secondary sub-visions or, in other words, categorized official objectives of the future development. In the next step, the preparatory project builds on the approved overall vision as well as the goals sorted under the strategic aspects derived from it to address two important subjects. The first subject is the challenges facing the future development of Assiut and the second is the corresponding development measures that could be

utilized to cope with them. For this purpose, the preparatory project identifies a set of six “urgent intervention fields”, where the two subjects of development obstacles and responding measures are correlated in a manageable manner. On this basis, the preparatory project recommends a set of prioritized urban development measures to cope with a multitude of dominating problems addressed in each intervention field. The development challenges, responding measures and intervention fields are identified together with the local partners and associated stakeholders. The (CPAS 2016) report summarizes these intervention fields as in the following points:

- Housing and informal settlements: Due to the severe challenges facing a sufficient provision of housing projects in Assiut, the city is not able to accommodate bigger shares of the expected population growth of the country. The current legal frameworks controlling urban development and binding land provision in the city seem to overload responding procedures and limit the access of the poor to a fair share of land designated for housing development. The available housing units, therefore, are not affordable for a wide margin of Assiut’s population. Further, there is no facilitation of any sort in the city to support the people to build, own or have access to their housing needs.

In response to this problem and with the agreement of development partners and stakeholders, the preparatory project suggests priority measures to be implemented in this intervention field. Here, increasing the efficiency of the current housing capacities of the built blocks of the city is a vital step to increase the housing offers within the city. Increasing the urban area of the city would expand the available land for housing development. And, developing urban alternatives on the regional level help the city settle some of its urgent needs beyond its administrative boundaries in a coordinated effort with the governorate and neighboring towns.

- Local economy: Public sectors and services seem to dominate the working force of the city followed by industry, building and constructions. More than 50% of the capitals invested in the city are in both sectors of industry and public services. Agriculture, however, is not an apparent element of the city’s economy due to the limited spaces available for agriculture. The productivity of a working unit in the city is less than the national average, which also leads to a less productivity and generated revenues of the capitals invested in Assiut in the same comparison. This could be referred to the misuse of the economic resources as well as to the insufficient rates of investments in the industrial sector.

As a priority in this field, the preparatory project together with the development partners and stakeholders addresses the importance of enhancing the industrial sector of the city. Here, promoting micro-projects that require intensive work and small investments is considered to be a fitting measure to create more jobs and reduce the unemployment rate.

- The sectors and facilities of basic urban services: Regarding services infrastructure, the increasing pressure on the infrastructure caused an apparent problem of insufficient provision of clean water within the city, where some areas are still off the grid. In many cases, residential areas of the city such as informal settlements and city expansions are not connected to the sewage system. Not all the solid waste is easily accessible by the municipal collecting service such as the case in informal settlements. Garbage, therefore, might accumulate on sidewalks, open spaces and vacant plots causing visual, health and hazardous problems. There are many

cases of informal-connections or no connections to the electricity grid of the city. Main Roads within the city are often congested causing difficulties in transportation and long waiting times. On another level, regarding social infrastructure, the city also suffers from an apparent lack of educational and recreational services in comparison with the targeted development rates.

In response to the addressed problems regarding services infrastructure, the preparatory project prioritizes the expansion and renewal of the clean water as well as sewage infrastructures, where necessary, as important development measures. These measures should consider the quality improvement of both: water purification for a better clean water provision and water treatment for better wastewater management. Developing a suitable set of incentives encouraging the citizens to cooperate together with raising public awareness and improving the current system of collection are the three features of the development measure prioritized to deliver a better system for solid waste management. Expanding the electricity grid to reach out to all citizens is important regarding energy provision. This measure should also be accompanied with an aggravated punishment in case of illegal connection to the grid. The preparatory project further addresses the troubled traffic and mobility as it suggests facilitating private investments in the public transport sector, improving the current public transport system and equipping it with sufficient and well maintained vehicles to cover the whole city, widening the city entrances and providing waiting areas for cars, relocating informal markets blocking the traffic, bringing the streets up to the approved construction and safety standards and regulating the traffic. Regarding social services, the agreed-on priority is that the preparatory project should recognize 139 feddans reserved to provide social services and spaces.

- Urban governance: The preparatory project indicates that neither the previous studies nor the current ones regarding the preparation of the development plans refer to a clear structure of local administration of Assiut, which would have indicated the relevant governmental institutions to the development of the city. The report, however, considers a list of public institutions to be the development partners representing the city and its local interests. This list includes: the Center for Urban Planning of Assiut (مركز التخطيط العمراني بأسسيوط), the General Administration for Planning and Development and its associated Department of Urban Development (الإدارة العامة للتخطيط العمراني وقسم التنمية العمرانية), the Directorate for Engineering (الإدارة الهندسية), the Directorate for Projects (إدارة المشروعات), the Directorate for Lands Protection (إدارة حماية الأراضي), the Directorate for Planning – Urban Perimeters Committee (إدارة التخطيط – لجنة الحيز العمراني), the Directorate for Housing and Facilities – Clean Water and Sanitation (مديرية الإسكان والمرافق – مياه شرب ، صرف صحي), the General Directorate of the State Lands (إدارة الإستثمار) and the Directorate for Investments (إدارة الإستثمار).

Here, the preparatory plan addresses the importance of improving the leadership skills of the local council, digitalizing the archives in the public institutions and promoting capacity development. Further, development measures in this sense should also secure an active partnership with the public institutions as well as private sector and interested NGOs. These priorities are essential in shaping the future development of the city.

- Poverty, women rights and the marginalized: The highest rates of poverty in Egypt are recorded in Assiut Governorate. In this context, women rather suffer from the situations of hardship more than men do in Assiut's society. This is due to the fact that the mainstream financial system and typical labor market of Assiut does not attract a healthy share of women. Furthermore, the social custom is male-oriented and put more pressure on women, while there are no public policies or regulations to fully secure women rights. All that, besides lacking education, limits the ability of women to participate in the development process of the city and to compete fairly with men in the labor market. On another topic, there are regulations regarding people with special needs in terms of job opportunities, training, education and the design standards required in public facilities.

The preparatory project prioritizes the importance of increasing the income level of Assiut's citizens. Therefore, attracting new investments, expanding the current ones and initiating micro-projects for the poor in order to create more jobs and reduce unemployment are important measures in this regard as well. Other measures, however, are also defined as a priority such as related capacity building and public awareness programs for people as well as municipal officials, especially those dealing with informal settlements. Financial support for the poor, as well as women-headed households and facilitating their access to the job market, is also highlighted in this context.

- The environmental issues: Assiut faces a variety of environmental problems regarding air and water pollution, uncontrolled accumulations of solid waste throughout the city and illegal discharges of residuals either to the sewage system or directly to the river. Some economic activities in the city, regardless of their scale, are considered to have negative impacts on the environment. As the uncontrolled urbanization growth progresses, a dilemma of a twofold nature manifests itself. Firstly, the city is consistently losing more of its valuable agricultural lands to informal settlements imposing more environmental problems. And, secondly, the lack of the necessary infrastructure in these settlements generates even more serious problems regarding health. Both folds are actively escalating the existing problems and leaving environmental development in a challenging position.

In order to reduce pollution, the preparatory project suggests increasing the fund of the related municipal offices, monitoring air quality in a consistent manner, controlling industrial facilities to strictly comply with the environmental requirements and filtering emissions. To maintain the city cleanliness, the city should be provided with the necessary equipment together with raising public awareness to the issue. The preparatory project further addresses that the future development plans should also integrate regulatory measures for air quality protection, safe disposal of waste and waste recycling. In this sense, special regulations for discharging industrial and agricultural residuals are also prioritized to secure better environmental conditions for the whole city.

As mentioned in the case of the National Strategic Plan for Urban Development of Egypt 2052, the national vision and development goals were actually correlated with the addressed development challenges and the proposed corresponding measures on the scale of the country. Likewise, the preparatory project tended to proceed with the preparation of the strategic and detailed plans of Assiut using a similar method. Therefore, an overall vision statement was defined in compliance with the general guidelines and development objectives on the regional as well as national levels and in full cooperation with all the associated partners to secure their commitment. In order to clarify the vision, it was then segmented into three groups of development goals categorized under the three strategic aspects of the city's status and position, image and urban atmosphere as well as socio-economic and living conditions. For an achievable development outcome, a thorough analysis that is close to the realities on the ground is necessary. Therefore, the major challenges hindering the desired urban development of Assiut were identified under six major fields demanding urgent interventions. These are the fields of housing and informal settlements, local economy, sectors and facilities of basic urban services, urban governance, poverty, women rights and the marginalized and environmental issues. The identified challenges under each field were then followed by the possible responsive measures that are recommended as priorities by the preparatory project and its development partners and stakeholders in the city. On this bases, the (CPAS 2016) report conclude the general development goals of Assiut as in the following figure:

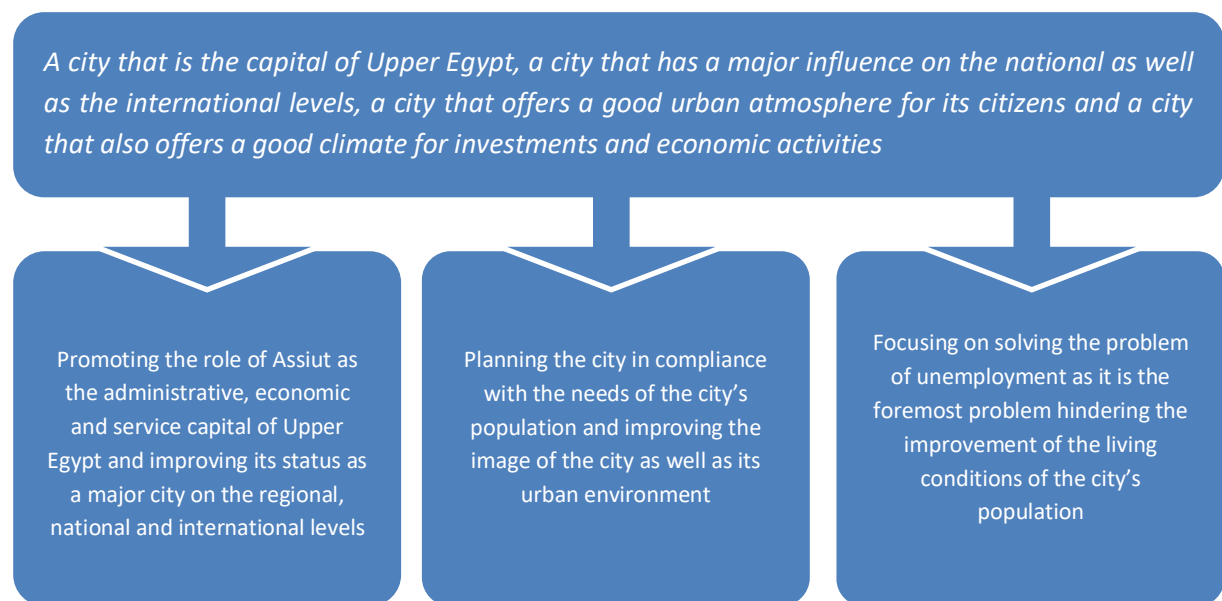


Figure 30: An Overall Review of the Local Development Vision and Goals for the Future Development of Assiut. Based on: (CPAS 2016, p.5 of Chapter 4)

6 Conclusion

This document discusses the topic of urban development and city planning of Assiut in its general terms. Therefore, the available documents regarding urban development in Assiut that are published either by the ministries and formal institutions or the relevant international agencies were reviewed. The goal is to shape a deep understanding of the drivers and mechanisms characterizing the current urban development scene, urban challenges, spatial planning systems and procedures as well as the future vision and development goals of the city.

Although the Planning Law of 1979 clearly states the will of the central government to encourage decentralization of the planning authority, spatial planning procedures in Egypt remain centralized to a large extent. In fact, heavy centralization could be traced starting from the local level of the municipal units all the way up to the national level of planning and administration of the country. Therefore, the planning procedures of Assiut, likewise in all Egyptian cities, are regulated under the mandate of the respective regional planning authority and, at the same time, they are strongly connected to the planning preferences set by the central government on the national level. The key central institutions concerning planning and urban development are the Ministry of Planning Monitoring and Administrative Reform and the Ministry of Housing Facilities and Urban Communities. The first leads on a classic approach to urban development in the form of long-, medium- and short-term fiscal plans to secure the fund of the suggested and economically approved development projects by the ministries. The reviewed documents refer to this planning process as comprehensive planning. The latter, the MoHFUC, introduces a more strategic approach to urban planning in the country. Supported by the Building Law of 2008, the ministry through its very active General Organization for Physical Planning aims at a full integration of the various development aspects to the formal planning system of the country. The GOPP devotes considerable efforts to set a complete set of strategic plans to cover the overall urban area of the entire country on all planning and administrative levels. As a result, two parallel planning processes seem to be apparent, especially at the central level. The first is then the fiscal comprehensive planning led by the MoP to provide the fund necessary for urban development. And, the second is strategic planning led by MoHFUC and performed by the GOPP to provide the approved strategies for urban development. The correlation between the two current and active planning processes is certainly not clear.

In addition to Assiut's functional and demographic dynamics, the city shows three main development trends relating mostly the employment and housing sectors. The job emigration to other cities, the increase of the informal settlements and housing shortages as well as the development of the New Assiut City are urban issues that the city has to deal with for improving its inhabitant's quality of life.

Based on the confrontations of the city's daily constraints, seven main urban development tensions or challenges were identified for Assiut. The first tension is between the top-down approach of planning and the lack of local autonomy or its limited abilities, which creates an inefficient and ineffective development system with a gap between planning and implementation. The next five tensions relate the city's urban growth with its capacity to provide enough and adequate housing, services infrastructure, social services, to protect the natural environment and to collect accurate and up-to-date information in a transparent registration system. Finally, the last tension addresses the presence of natural and artificial urban barriers with the city's ability to overcome them to both

physically and functionally integrate the different city districts. As the consequence of the former, it is clear that the city faces some urban sustainability issues that should not only be addressed for the New City of Assiut but also for the rest of the existing urban fabric.

Since planning procedures, as mentioned, are bound by the regulations of the upper planning and administrative levels, urban vision and development goals of Assiut reflect those of the regional as well as the national development plans. This document, therefore, reviewed the major development plans influencing the future development of Assiut on the local, regional and national levels. In this context, the National Strategic Plan for Urban Development – Egypt 2052 aims at accommodating the expected population increase within the next four decades and achieving a population balance that falls in line with the capacity of each region, with the objective of achieving social justice, decreasing unequal distribution of resources among different regions, providing job opportunities in the proposed areas of development and achieving quality of life. At the regional level, the Strategic Plan of Upper Egypt - Red Sea Axis corresponds to the goals of national plan as it aims at creating a new urban corridor connecting the Upper Egypt, including Assiut, and the touristic towns along the western coast of the Red Sea. Another goal of the regional plan is to encourage a linear conurbation to take place along the suggested corridor. In a similar methodology to preparing the national plan, the Preparatory Project of the General and Detailed Strategic Plan for Assiut City was initiated to identify the future vision of the city. Together with the local partners, the preparatory project identified three groups of goals regarding the city's role in the regional, national and international contexts, the city's urban sphere and environment and the city's living conditions and socio-economic development. To better secure the desired outcomes of the planned future development, the preparatory project addressed the challenges hindering the development of the city as well as the potentially applicable measure to cope with them.

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