

Assessing the implementation of smart growth and New Urbanism principles in the master plan of Latakia city

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Abstract. This research begins with a brief theoretical overview of smart growth and New Urbanism, as well as the principles that underlie each of these approaches. Next, a revision of the current master plan of Latakia city is conducted and complemented by an analytical study. The research then proceeds to evaluate the extent to which the master plan aligns with the principles of smart growth and New Urbanism. Then, conclusions and recommendations are presented in order to outline a master plan that incorporates the principles of smart growth and New Urbanism. One of the main results is that this research determines the percentage achieved by the master plan for both smart growth and New Urbanism principles.

Key words: smart growth, New Urbanism, master plan, development regulations, urban policies, sustainable cities.

1. Introduction

Urban planning, at both global and local levels, has traditionally relied on master plans to guide the growth and development of cities. However, studies and analyses have revealed that approaches, which focus solely on land use planning, have numerous drawbacks. These approaches will lead to inflexible, time-consuming, and unsustainable master plans. Consequently, many cities have been suffering from illegal, sub-standard, haphazard and unplanned growth. Now adays, master plans have become a major obstacle to achieving planned urban development and creating smart cities, as well as cities that are cherished by their inhabitants¹.

New Urbanism and smart growth represent contemporary methods in urban planning and urban design that strive to tackle environmental concerns, housing challenges, and the overall welfare of communities. New Urbanism and smart growth place an emphasis on concepts like creating compact, walkable communities with diverse functions and convenient availability of alternative transportation options².

Countries are increasingly adopting the principles of smart growth and New Urbanism in preparing master plans for cities. The countries adopt the principles of smart growth and New Urbanism in order to avoid urban problems and foster smart development with positive impacts. The city of Lattakia, located in northwestern Syria, suffers from numerous urban issues. Unfortunately, the city master plan has failed to effectively control or reduce these issues; in fact, the city master plan has exacerbated the urban issues. The master plan for Latakia city was not developed based on contemporary planning standards that could address environmental and urban challenges, such as principles of smart growth and New Urbanism. Rather, the master plan is merely a plan to regulate

¹ Gupta 2017

² Javid *et al* 2005

land use based on the quantitative standards set by Syrian Legislative Decree No. 5 of 1982. The quantitative standards primarily focus on building densities, population, transportation, and imposing decisions, without considering modern approaches^{3,4}.

After a brief overview of smart growth and New Urbanism, the research reviews the current master plan for the city of Latakia, evaluating the strengths and weaknesses of the master plan, as well as the preparation process. The research then assesses the extent to which the current master plan aligns with the principles of New Urbanism and smart growth. Based on the findings, the research provides recommendations and suggestions to improve the master plan for Latakia city and ensure that it is in line with the principles of smart growth and New Urbanism, thus promoting a better future for the city.

2. An overview of smart growth and New Urbanism

2.1. Smart growth

Smart growth has evolved rapidly from its mid-1990s origins as an effort to reframe the policy debate over sprawl in a way that more directly links the environment, economy, and daily life concerns⁵. The smart growth website defines smart growth as a development that supports economic growth, strong communities and environmental health. Also, the website indicates that smart growth covers a range of development and conservation strategies that help protect health and natural environment and make communities more attractive, economically stronger, and more socially diverse⁶.

Ritu Shrivastava and Anupama Sharma define smart growth as a wide urban generated planning and transportation theory that acknowledges links between growth and quality of life. It makes use of recent growth to enhance the neighborhood. Also, smart growth gives communities time, attention, and resources while revitalizing older, run-down areas and center cities⁷. The characteristics and concept of smart growth vary from community to community. In general, smart growth encourages growth in the city's core to reduce urban sprawl and creates compact, transit-oriented, walkable, and bicycle-friendly land use, including neighborhood schools, complete streets, and mixed-use developments with a wide variety of housing options⁸. In order to direct smart growth strategies, the Smart Growth Network (SGN) created a list of 10 fundamental principles, showed in Table 1.

Table 1. Principles of smart growth⁹.

1	Mix land uses
2	Take advantage of compact building design
3	Create a range of housing opportunities and choices
4	Create walkable neighborhoods
5	Foster distinctive, attractive communities with a strong sense of place
6	Preserve open space, farmland, natural beauty, and critical environmental areas
7	Strengthen and direct development towards existing communities
8	Provide a variety of transportation choices
9	Make development decisions predictable, fair, and cost effective
10	Encourage community and stakeholder collaboration in development decisions

³ Nizam and Petrișor 2022

⁴ Maya 2013

⁵ Zamanov 2014

⁶ Smartgrowth 2015

⁷ Shrivastava and Sharma 2011

⁸ *ibid*

⁹ Smartgrowth 2015

2.2. New Urbanism

In the late 1980s and early 1990s, a large number of urban designers, architects, planners, developers, and engineers were dissatisfied with the dominant development patterns, focused more on building dispersed housing far from traditional downtowns and main streets. Meanwhile, inside cities, urban renewal was destroying the fabric of historic neighborhoods and isolating once-stable communities. As cities continued to decline, a coalition of urban designers, architects, planners, developers, and engineers coalesced to create New Urbanism, a movement for reinvestment in design, community, and place. The Congress for New Urbanism (CNU) defines New Urbanism as a movement that is united around the belief that physical environment which people live in has a direct impact on chances for happy, prosperous lives. New urbanists believe that well-designed cities, towns, neighborhoods, and public places help create community: healthy places for people and businesses to thrive and prosper¹⁰.

According to Rahnema *et al.*, New Urbanism aids linking natural environment with manmade environments, allowing for the promotion of environmental sustainability. New Urbanism also prescribes for a set of principles that encourage neighborhoods that are walkable, more livable, pedestrian oriented, with different housing types and choices, well connected to surrounding environments and have quality open spaces for its inhabitants^{11, 12}.

Morris (2008), cited by Aili Nauyele Nghingwa (2019), saw New Urbanism to initially have been a response to urban sprawl, but it is now seen to be a source for sustainable urban progression and smart growth. He explained it as a reaction to alterations in climate, peak oil and a premise for improving physical wellbeing and social welfare¹³. The Congress for New Urbanism (CNU) asserts many principles on many scales to guide public policy, development practice, urban planning, and design (Table 2).

Table 2. Principles of New Urbanism¹⁴.

Region: metropolis, city, and town	
1	Metropolitan regions are finite places with geographic boundaries derived from topography, watersheds, coastlines, farmlands, regional parks, and river basins. The metropolis is made of multiple centers that are cities, towns, and villages, each with its own identifiable center and edges.
2	The metropolitan region is a fundamental economic unit of the contemporary world. Governmental cooperation, public policy, physical planning, and economic strategies must reflect this new reality.
3	The metropolis has a necessary and fragile relationship to its agrarian hinterland and natural landscapes. The relationship is environmental, economic, and cultural. Farmland and nature are as important to the metropolis as the garden is to the house.
4	Development patterns should not blur or eradicate the edges of the metropolis. Infill development within existing urban areas conserves environmental resources, economic investment, and social fabric, while reclaiming marginal and abandoned areas. Metropolitan regions should develop strategies to encourage such infill development over peripheral expansion.
5	Where appropriate, new development contiguous to urban boundaries should be organized as neighborhoods and districts, and be integrated with the existing urban pattern. Noncontiguous development should be organized as towns and villages with their own urban edges, and planned for a jobs/housing balance, not as bedroom suburbs.
6	The development and redevelopment of towns and cities should respect historical patterns, precedents, and boundaries.
7	Cities and towns should bring into proximity a broad spectrum of public and private uses to support a regional economy that benefits people of all incomes. Affordable housing should be distributed throughout the region to match job opportunities and to avoid concentrations of poverty.

¹⁰ Congress for the New Urbanism 2022

¹¹ Rahnema et al 2012

¹² Nghiningwa 2019

¹³ ibid

¹⁴ Congress for the New Urbanism 2022

8	The physical organization of the region should be supported by a framework of transportation alternatives. Transit, pedestrian, and bicycle systems should maximize access and mobility throughout the region while reducing dependence upon the automobile.
9	Revenues and resources can be shared more cooperatively among the municipalities and centers within regions to avoid destructive competition for tax base and to promote rational coordination of transportation, recreation, public services, housing, and community institutions.
Neighborhood, district, and corridor	
10	The neighborhood, the district, and the corridor are the essential elements of development and redevelopment in the metropolis. They form identifiable areas that encourage citizens to take responsibility for their maintenance and evolution.
11	Neighborhoods should be compact, pedestrian friendly, and mixed-use. Districts generally emphasize a special single use, and should follow the principles of neighborhood design when possible. Corridors are regional connectors of neighborhoods and districts; they range from boulevards and rail lines to rivers and parkways.
12	Many activities of daily living should occur within walking distance, allowing independence to those who do not drive, especially the elderly and the young. Interconnected networks of streets should be designed to encourage walking, reduce the number and length of automobile trips, and conserve energy.
13	Within neighborhoods, a broad range of housing types and price levels can bring people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to an authentic community.
14	Transit corridors, when properly planned and coordinated, can help organize metropolitan structure and revitalize urban centers. In contrast, highway corridors should not displace investment from existing centers.
15	Appropriate building densities and land uses should be within walking distance of transit stops, permitting public transit to become a viable alternative to the automobile.
16	Concentrations of civic, institutional, and commercial activity should be embedded in neighborhoods and districts, not isolated in remote, single-use complexes. Schools should be sized and located to enable children to walk or bicycle to them.
17	The economic health and harmonious evolution of neighborhoods, districts, and corridors can be improved through graphic urban design codes that serve as predictable guides for change.
18	A range of parks, from tot-lots and village greens to ballfields and community gardens, should be distributed within neighborhoods. Conservation areas and open lands should be used to define and connect different neighborhoods and districts.
Block, street, and building	
19	A primary task of all urban architecture and landscape design is the physical definition of streets and public spaces as places of shared use.
20	Individual architectural projects should be seamlessly linked to their surroundings. This issue transcends style.
21	The revitalization of urban places depends on safety and security. The design of streets and buildings should reinforce safe environments, but not at the expense of accessibility and openness.
22	In the contemporary metropolis, development must adequately accommodate automobiles. It should do so in ways that respect the pedestrian and the form of public space.
23	Streets and squares should be safe, comfortable, and interesting to the pedestrian. Properly configured, they encourage walking and enable neighbors to know each other and protect their communities.
24	Architecture and landscape design should grow from local climate, topography, history, and building practice.
25	Civic buildings and public gathering places require important sites to reinforce community identity and the culture of democracy. They deserve distinctive form, because their role is different from that of other buildings and places that constitute the fabric of the city.
26	All buildings should provide their inhabitants with a clear sense of location, weather and time. Natural methods of heating and cooling can be more resource-efficient than mechanical systems.
27	Preservation and renewal of historic buildings, districts, and landscapes affirm the continuity and evolution of urban society.

2.3. Smart growth and New Urbanism

There is a great similarity between the principles of smart growth and the principles of New Urbanism, as both concepts arose in a close and relatively recent period as a response to urban sprawl and the conventional land-consuming development pattern and other issues related to environmental, social and economic challenges in the current era¹⁵.

However, it can be said that smart growth tends to consist of policies and strategies in the field of development and conservation with the aim of supporting a strong economy,

¹⁵ Wey and Hsu 2014

creating diverse and attractive communities, and protecting the natural environment, while New Urbanism tends to be more practical, through a visual materialization with specific projects. New Urbanism has a greater focus on the form of physical environment of cities, towns, neighborhoods and public spaces, believing that good design contributes to the creation of healthy, diverse and economically prosperous communities¹⁶.

3. Study of the current method for the master plan in the city of Latakia and the preparation process

3.1. Latakia (province and city)

Latakia province is distinguished by the administrative and functional importance, and the geographical location. Latakia province is located in the northwest corner of Syria and is situated on the shores of the Mediterranean Sea. The governorate covers an area of approximately 244,000 hectares¹⁷. The governorate is administratively divided into four regions: Latakia region; Jableh region; Al-Qardaha region and Al-Haffah region. Latakia region is the main administrative area and has the city of Latakia, which is the center of the province, with the other regions being administratively subordinated to Latakia region¹⁸. Fig. 1 illustrates Latakia province and the administrative divisions, and Fig. 2 illustrates the aerial map of the city of Latakia.

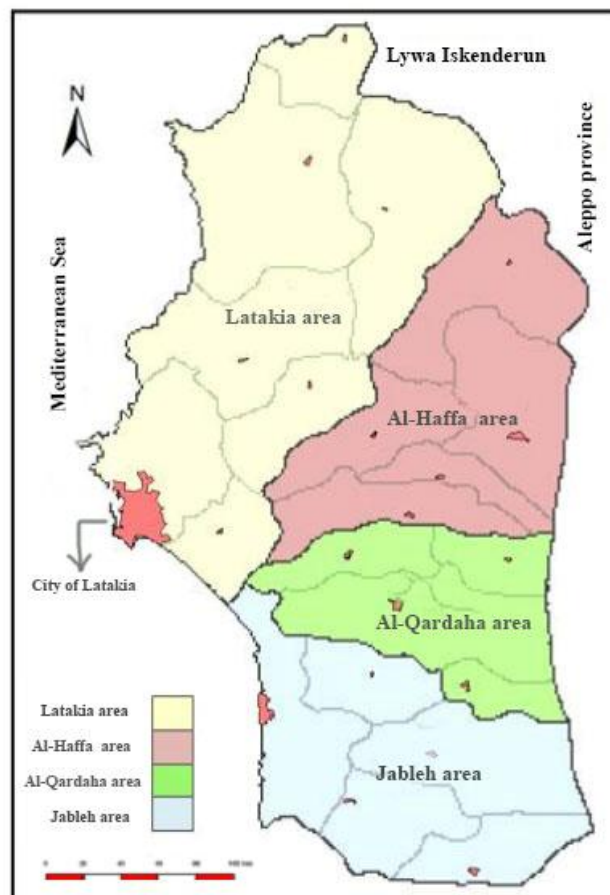


Fig. 1. The administrative divisions of Latakia province¹⁹.

¹⁶ Smartgrowth 2015

¹⁷ Mayya 2014

¹⁸ Maghrakona 2019

¹⁹ Ministry of Tourism in Syria 2014

3.1.1. Natural characteristics

Latakia province is characterized by diverse geographical and topographical features, including coasts, beaches, plateaus, and mountains. This diversity is reflected in the climate and natural landscapes, contributing to the formation of rivers, streams, and lakes due to rainfall and topographic gradients. In terms of Latakia city itself, its topography and proximity to the beach, and some hills and highlands like the Tabiyat area, the Southern Corniche, and the Castle, provide the city of Latakia with numerous natural advantages, supervision, and beautiful views²⁰.

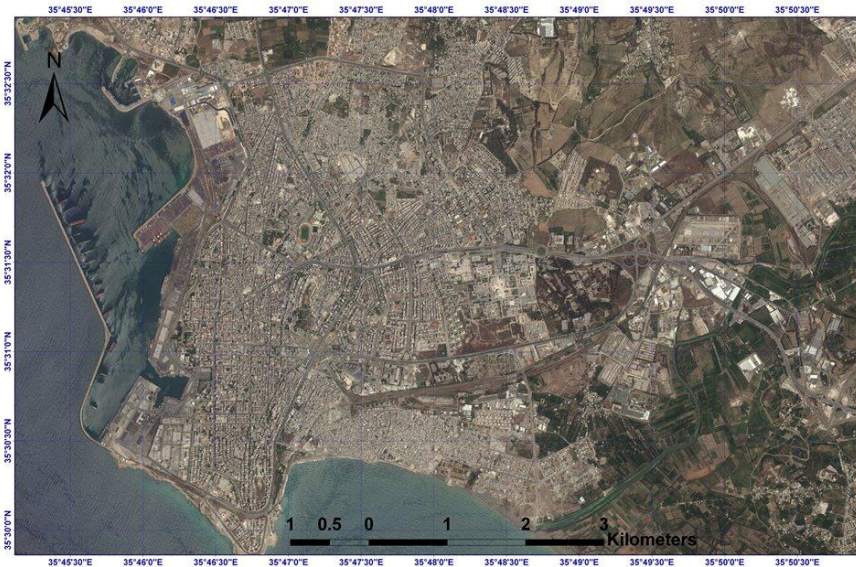


Fig. 2. Aerial map of Latakia city²¹.

3.1.2. Climate characteristics

Local climatic data (temperature, humidity, rainfall, winds etc.) should be taken into consideration when conducting various urban studies. Due to the coastal location of Latakia city, the city has a moderate Mediterranean climate. The prevailing winds are mostly from the southwest, west, and sea, bringing rainfall that helps moderating the temperatures²².

- Winds: the predominant winds blowing are from the southwest, west, and sea, which are rainy winds that help moderate the temperatures.
- Rainfall: the province is considered one of the regions with the highest annual precipitation in the country, following Tartus city. The average annual rainfall reaches up to 1200 mm in the eastern region of province.
- Temperature: Latakia province has a moderate climate due to the coastal location, with the sea moderating the temperatures in winter and providing some cooling in summer. Temperature gradually decreases towards the mountainous highlands. Temperature has a significant impact on construction processes, especially in determining building materials, construction period, and architectural design.

²⁰ General Company for Engineering Studies and Technical Consultations 2013

²¹ Directorate of Decision Support and Regional Planning in Latakia 2018

²² *ibid*

- Humidity: Latakia province is characterized by high humidity due to the proximity to the sea. The annual average humidity is around 70% in most areas and decreases to 65% on the coast.
- Vegetation cover characteristics: Latakia province enjoys diverse vegetation cover, including forests and woodlands such as Al-Frenlok forests, Slinfa trees, and Rabia forests, among others. The percentage of forested areas in the governorate is 37%, while the percentage of arable land is 47.14%. As for Latakia city itself, there are only two small areas with forest vegetation, consisting of pine trees, which can be used as general environmental spaces within the city's master plan²³.

3.1.3. Estimated population for the year 2025

The population of Latakia city has been estimated to be 788,000 people by the year 2025, according to the population expert from the General Company for Engineering Studies and Technical Consultations, based on a range of statistics and studies issued by the statistical center. This estimation relies on an average growth rate of 30 per thousand for the city²⁴. As for the population composition in Latakia city, it is considered youthful, with a high percentage of young individuals and a low percentage of elderly individuals. The population pyramid for the year 2025 illustrates this (Fig. 3)²⁵. The composition of the workforce in the city according to economic activities until the year 2025 is illustrated in Table 3.

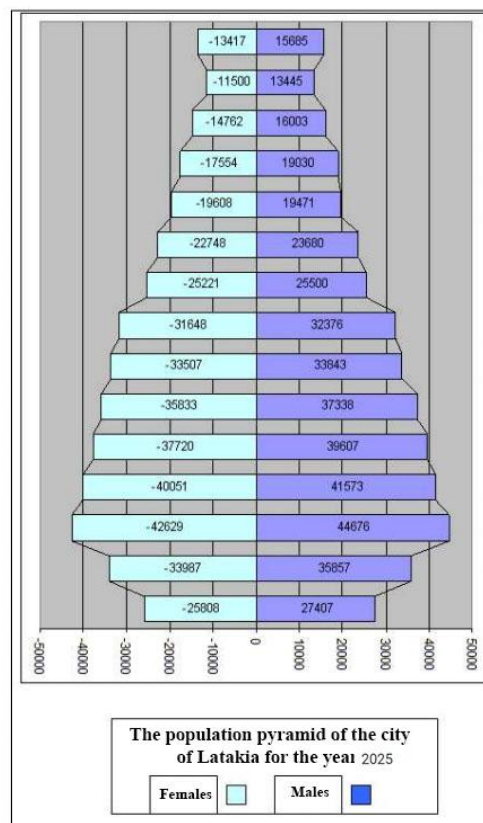


Fig. 3. Population pyramid of the city of Latakia²⁶.

²³ General Company for Engineering Studies and Technical Consultations 2013

²⁴ ibid

²⁵ Directorate of Decision Support and Regional Planning in Latakia 2018

²⁶ Directorate of Decision Support and Regional Planning in Latakia 2018

Table 3. Future labor force ratios for the city of Latakia based on economic activities until 2025²⁷.

Economic activities	Ratios according to:		
	Population study of the city	Current situation	Proposal
Services and other activities	68.7%	-	75%
Industry	20%	-	20%
Agriculture	4%	-	5%
Unemployed	7.3%	-	-
Total ratios	100%	-	100%

3.2. Study of current master plan in Latakia city and the process of its preparation

The master plan for Latakia city was developed in 2008 in order to address the problems faced by the city. However, the master plan did not achieve the necessary success and encountered approximately 13,000 objections. As a result, the master plan was not approved until 2016 after several amendments were made to obtain approval. The area covered by the implemented urban plan is 6,111 hectares²⁸. This research reviews the steps taken in preparing the master plan in Latakia city, the objectives, and the criteria followed. Then the study assesses the extent to which the process of preparing the master plan in Latakia city aligns with the objectives and principles of smart growth and New Urbanism.

3.2.1. Review of the steps taken in preparing the master plan in Latakia city and the criteria considered

The General Company for Engineering Studies and Technical Consultations in Latakia was contracted to develop a new master plan for the city in 2001, covering the next twenty years. The work was carried out in three phases over approximately 3 years and 2 months.

The main objective of the master plan was to promote population growth and enhance the role of population growth in tourism. The sub-objectives included making Latakia an attractive city for events, achieving balance with other Syrian cities at the national level, making the city appealing for human activities at provincial level, providing high-quality services between rural and urban areas, ensuring various housing options, securing services for population, adopting a sectoral approach to development, considering tourism as a vital sector, and attempting to prevent the expansion and self-regulation of informal settlements²⁹. The first phase consisted of two parts. The first part, which lasted 8 months, involved gathering information and statistics related to the province and evaluating the master plan of 1984. A comprehensive plan consisting of 42 plans and a report on the current situation of the province was prepared. The second part, which lasted 6 months, focused on analyzing the information and developing the planning program for designated areas (Fig. 4) based on the urban planning principles set out in Decree No. 5 of 1982, and the comprehensive plan and housing program³⁰.

The second phase included the preparation of detailed zoning plans according to the planning program established in the first phase. The second phase encompassed the program for designated areas, including the identification of vacant lands, areas for rehabilitation and redevelopment, and areas of informal settlements. Second phase also included the expansion program proposals based on data from first phase and the comprehensive city-wide plan, which covered the general road network, regulatory principles for streets, resolution of road intersections, and departure centers, and illustrative plans for the planning concept³¹.

²⁷ General Company for Engineering Studies and Technical Consultations 2013

²⁸ General Company for Engineering Studies and Technical Consultations 2013

²⁹ ibid

³⁰ ibid

³¹ ibid

The third phase focused on preparing detailed plans, determining the implementation stage for the first 10 years of general master plan, developing development programs and plans for designated areas, prioritizing the implementation of the general master plan, and establishing mechanisms for the execution of master plan³².



Fig. 4. The studied areas within Latakia master plan³³.

Regarding the adopted urban principles, the planning program was based on the following: multi-purpose land use to meet the shortage of needs; increasing land utilization in approved zoning plans, and addressing land use in violation areas by reorganizing them and providing necessary services. Additionally, there were specific principles and directions adopted in the preparation of the general comprehensive plan. This included the expansion of the city along the coast to achieve aesthetic goals, balancing the demographic distribution between the city and surrounding population centers, and alleviating the burden by establishing complementary urban settlements around the city. Long-term future directions were also set for regional tourism development, both northwards towards Umm Al-Tuyour and southwards towards Al-Basa and Jablah. The plan identified expansion areas capable of accommodating the final population estimates for 2025, which reached approximately 229,118 individuals, and aimed to achieve a balanced distribution of service centers³⁴.

Three strategies have been adopted for the positioning and dispersion of urban development in the city as follows³⁵:

- Natural dispersion of city in north and northeast in a compact and continuous manner (population development). This is achieved through the extension and formation of a compact city mass directly connected to the parts of the city.

³² ibid

³³ General Company for Engineering Studies and Technical Consultations 2013

³⁴ Maya 2013

³⁵ General Company for Engineering Studies and Technical Consultations 2013

- Urban dispersion of the city in a star-shaped pattern in its surroundings, in urban clusters. This strategy involves defining and enclosing the city, preventing the continuous expansion in one or more directions, and defining the current urban blocks while providing limited development opportunities in some parts of the surrounding areas. This allows the creation of separate urban clusters with independent centers, connected to the existing city through a strong and efficient road network.
- Linear urban expansion of city towards north and south, allowing urban development to extend along tourist areas. This reinforces and activates tourist areas along the coast, supported by the neighboring main road axes.

Five alternatives for urban development have been proposed, with the fifth alternative being adopted as indicated in Fig. 5. The strategy of the adopted fifth alternative in the zoning plan issued in 2008³⁶. Fig. 6 shows the structural plan of Latakia city. The proposed housing development strategies focused primarily on organizing new urban expansion areas. The new urban expansion areas strategy involved incorporating some clusters surrounding the city and directing growth towards the north and northeast, with the possibility of southern expansion towards Al-Basa. Secondly, organizing informal housing areas in accordance with their current state and enclosing these informal housing areas to prevent their spread to other parts of the city, while providing services according to available capacities. Organizing informal housing areas is achieved by implementing a planning program that proposes the integration of informal housing with the neighborhoods and overall fabric of city, while considering vacant areas for future residential use³⁷.

The expansion mechanisms adopted in the plan can be described as follows³⁸:

- Internal expansion, utilizing the population carrying capacity in the existing city by filling gaps, accommodating vacant housing, and utilizing the carrying capacity of violations areas after regulating the violations areas.
- External expansion, in eight expansion areas (distributed north, northeast, north, and south of city). Priority is given to designated expansion areas in previous zoning plan, while preserving part of wooded areas and enhancing beach tourism. Expansion areas beyond the administrative boundaries have the second priority.

The plan aims at reducing the overlap between the city's borders and adjacent clusters, incorporating the Sengwan cluster into the city after separating it from Sqoubin³⁹.

However, the plan was not approved in 2008 due to numerous objections. Subsequently, amendments were proposed at various levels, and the plan was approved in 2016. The population capacity estimates were inaccurate for the internal expansion of the existing city, and urban expansion was significant in eight expansion areas. They were then reduced to three areas (3-5-6)⁴⁰. The new master plan approved by Ministerial Decision No. 253 of 2016 is shown in Fig. 7. The area of city within the new administrative boundaries is illustrated in Fig. 8, while Fig. 9 indicates the expansion area of the master plan.

³⁶ Maya 2013

³⁷ Mayya 2014

³⁸ Maghrakona 2019

³⁹ ibid

⁴⁰ General Company for Engineering Studies and Technical Consultations 2016

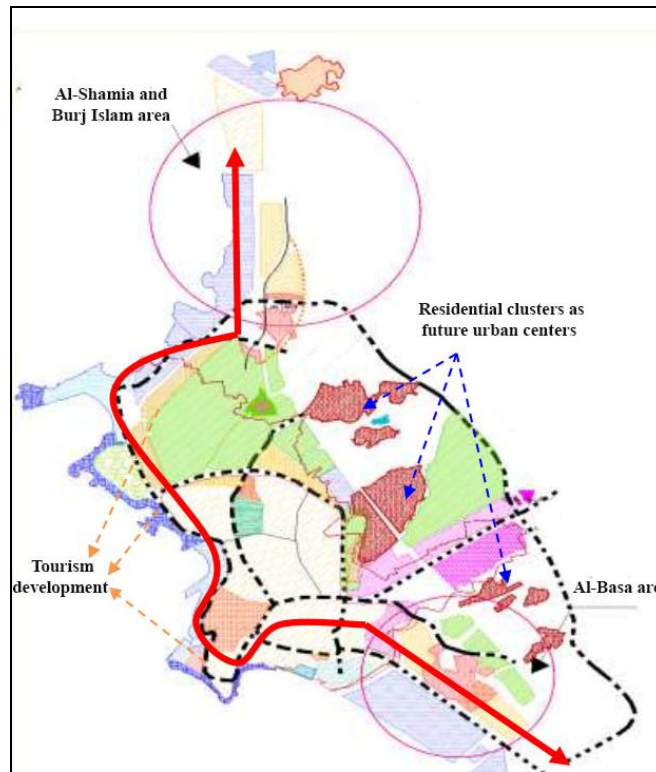


Fig. 5. Final alternative strategy adopted in the master plan issued in 2008⁴¹.

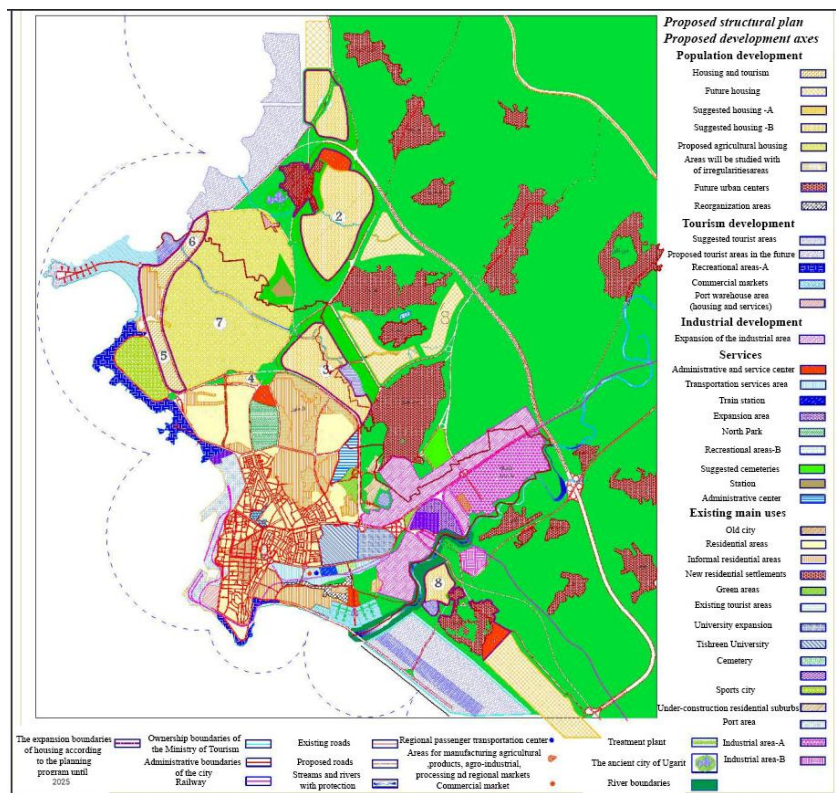


Fig. 6. Structural plan of Latakia city⁴².

⁴¹ Maya 2013

⁴² General Company for Engineering Studies and Technical Consultations 2013

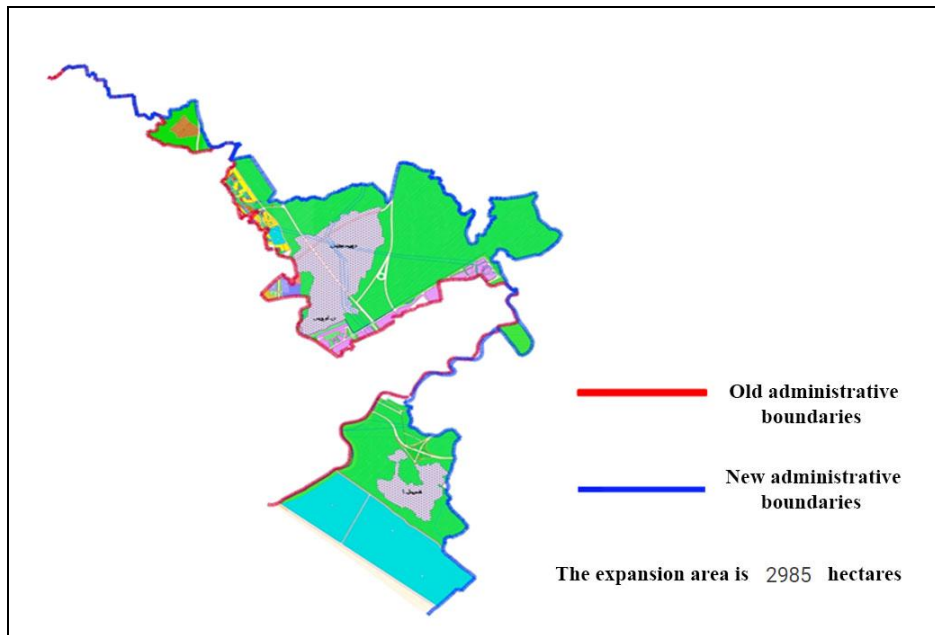


Fig. 7. The new master plan approved by Ministerial Decision number 253 of 2016⁴³.

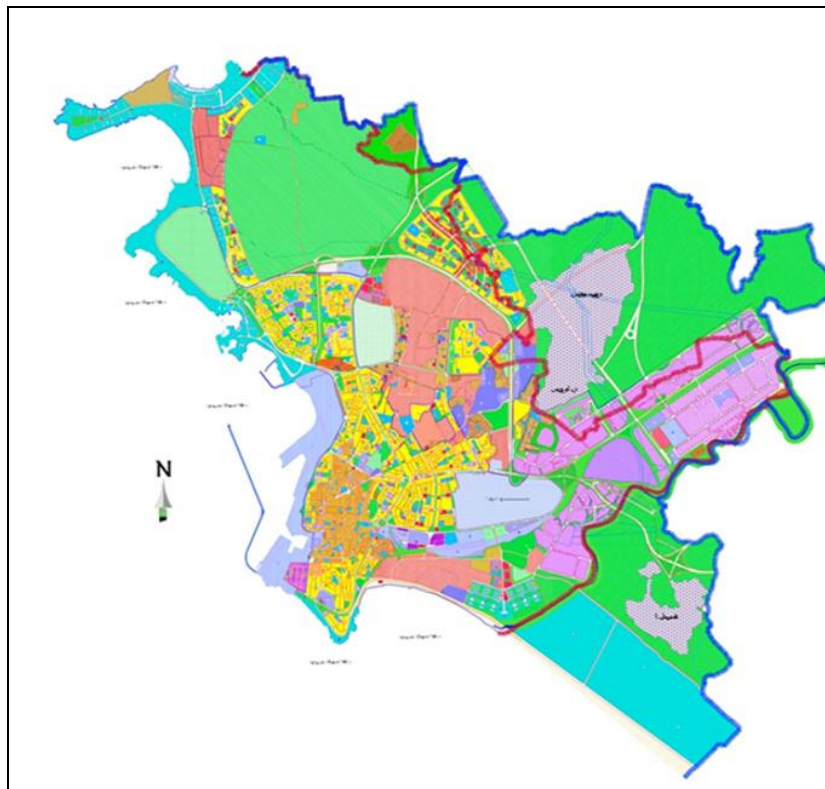


Fig. 8. The area of city within the new administrative boundaries⁴⁴.

⁴³ ibid

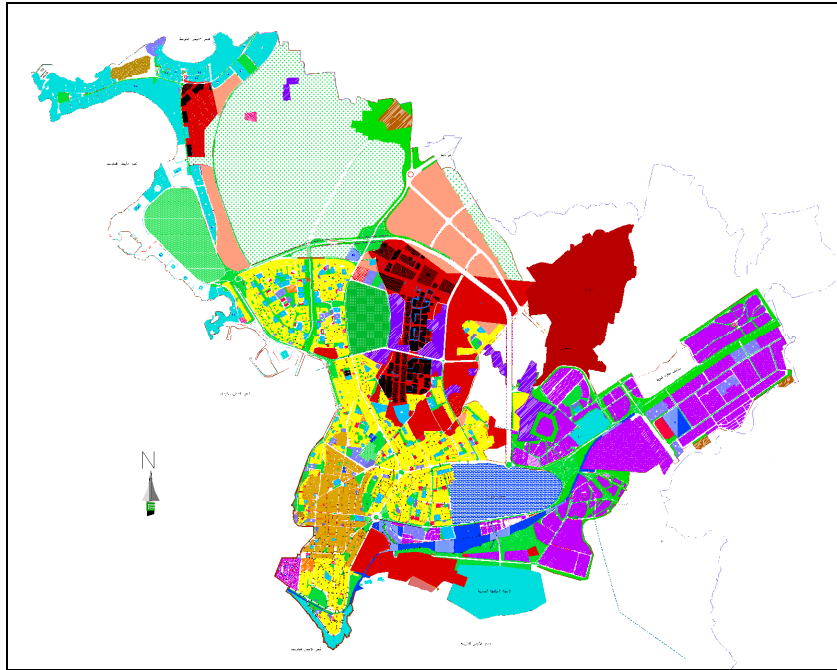


Fig. 9. Expansion area of the master plan⁴⁵.

4. Analysis and evaluation of current master plan in the city of Latakia and the preparation process

The urban plan has been evaluated based on its ability to achieve the goals and principles of smart growth and New Urbanism at several levels.

4.1. Evaluating the objectives of master plan

The main objective of the master plan is to achieve population and tourism development, in addition to the sub-objectives. At the national level, master plan aims to make the city attractive for events, while at provincial level, it seeks to achieve a high level of services between the rural and urban areas. At city level, master plan aims to provide various housing options and secure services for residents. The plan also adopts a sectoral approach to development, with tourism being the most important sector. Concerning the informal settlements, the aim is to prevent the expansion of informal settlements and achieve self-organization. I assessed the alignment of urban plan's objectives with the concept and goals of smart growth, which encompasses strategies to achieve a strong economy, social diversity, more attractive communities, and protect health and natural environment. It can be said that theoretically the objectives of plan cover some aspects of smart growth, but not all of them. The objectives of plan address issues related to building strong communities through population development, providing recreational and tourism facilities, securing services for residents, offering different housing options, and attempting to control and

⁴⁴ General Company for Engineering Studies and Technical Consultations 2016

⁴⁵ *ibid*

organize informal settlements. However, the plan does not address all social and economic issues that smart growth and New Urbanism aim to achieve through the planning process. Additionally, the absence of goals related to the protection of health and natural environment was noted.

4.2. Evaluating the process of preparing the master plan in Latakia city

The master plan preparation process in Latakia city displays strengths in its structured three-phase approach, clear objectives, and sub-objectives that encompass various dimensions of urban development. Notably, the master plan preparation process involves detailed information gathering, comprehensive zoning plans, and a focus on implementation mechanisms. The plan's adherence to urban principles, such as multi-purpose land use and addressing land use violations, demonstrates a strategic vision for balanced development. However, the plan lacks specific elements that are essential in modern urban planning, including community engagement, environmental considerations, and detailed execution plans, which could hinder its effectiveness and sustainability. The process of preparing the master plan does not take into consideration the principles of smart growth and New Urbanism.

4.3. Evaluating the proposed development strategy

It is noted that a policy of expansion and urban sprawl has been adopted, both north and south along the coastal strip and tourist areas. This includes the strategy of northern and northeastern expansion (connected population development). However, to existing communities, and principle No. 4 of New Urbanism regarding promoting infill development. Additionally, this form of development consumes a significant amount of agricultural land and green areas, and contributes to increased road length and car travel distances, leading to increased pollution, all of which have an impact on the natural environment and public health. A strategy of star-shaped dispersion as urban clusters around the city was also followed. This type of development is considered favorable as it defines the city and prevents continuous sprawl, thus protecting the city boundaries. By considering these urban clusters as distinct urban centers with clear borders, they can have residential and other service uses that meet the needs of their residents, reducing the need to travel to the city and consequently reducing carbon emissions and relieving pressure on the city. The cluster form of development aligns with the principles of smart growth and the second part of principle No. 5 of New Urbanism, which calls for organizing development adjacent to urban boundaries as integrated neighborhoods with existing urbanism. It is important to propose a development that suits the identity of these urban clusters, enhancing their character rather than erasing it. It is also suggested to incorporate some adjacent urban clusters into the city, such as Sangwan and Suqubin, and develop and organize them as new neighborhoods, in line with the first part of principle No. 5 of New Urbanism, which calls for organizing new development adjacent to urban boundaries as integrated neighborhoods. Furthermore, attention should be given to organizing informal settlements within the administrative boundaries, using these settlements for population growth, and utilizing vacant housing in the city and existing suburban areas to achieve population accommodation. This type of development aligns with the principle No. 7 of smart growth, and principle No. 4 of New Urbanism, which advocate for infill development and directing development towards

existing communities. The proposed tourist development was focused on suggesting tourist expansion areas along the coastal strip, which partially achieved economic and social objectives.

From an economic perspective, the focus was solely on the tourism sector, neglecting the agricultural sector despite its potential contribution to the country's economy if a plan for agricultural development is implemented. Moreover, the provision of employment areas and local investments to increase local production and create job opportunities to prevent urban migration and combat urban poverty was not considered. The city was not regarded as an economic unit in the contemporary world, as stated in the second principle of New Urbanism.

From a social standpoint, housing development and the provision of services were emphasized. Housing for all levels was mentioned, but this goal was not translated into projects that demonstrate the effectiveness of this goal. Therefore, it was not clarified how this goal would be achieved through the structural plan and planning program. The inability to achieve more diverse communities contradicts the principles of smart growth in achieving diversity in housing options, and principles No. 3 and 7 of New Urbanism. There is a lack of policies or focus on open spaces such as squares and streets, neglecting the role they can play in creating interactive environments among people of different segments.

Recreational areas were proposed in tourist projects for expansion in the north and south of city. However, the study neglected to consider recreational areas as outlets for residents within the city. The study was limited to suggesting a specific area, such as the former warehouses of the city's port, to be studied as places for entertainment and recreation within open spaces in the city.

From the environmental and health viewpoint, it was noticed the neglect of issues related to health protection and the natural environment. There has been no focus on the importance of the relation between the city and natural areas, which contradicts principle No. 3 of New Urbanism emphasizing the importance of the relationship between the city and nature. The proposed development pattern through excessive urban sprawl, at the expense of agricultural land and green areas, instead of studying the possibility of concentration and development of infill, leads to the consumption of a lot of agricultural land and green areas. The proposed development pattern also contributes to longer distances and travel by car, resulting in increased pollution, all of which have an impact on the natural environment and public health. This type of development patterns intersects with principle No. 4 of the New Urbanism, which emphasizes that the development pattern should not erase city boundaries and calls for infill development, conflicting with principles No. 6 and No. 7, which emphasize preserving agricultural land and directing development towards existing communities. As observed in the plan, there is a scarcity of green spaces or parks, especially in the city center. This scarcity of green spaces is a result of focusing on population development and allocating the majority of land for population development, adopting the principle of expansion rather than concentration. The plan also done to preserve certain central areas that include economic, administrative, commercial, and recreational activities. The proposed plan did not consider the presence of linear green spaces along the coast but instead focused on tourist facilities, despite the fact that the coastal area serves as the only recreational outlet for the

city's residents. This lack of natural elements in the city may lead to a weakening of the urban fabric and a decline in biodiversity. It has been suggested to prioritize green areas and include playgrounds in neighborhoods in the proposed expansion areas, which aligns with principle No. 18 of the New Urbanism regarding the distribution of parks, gardens, and playgrounds within the neighborhood.

Regarding transportation, the road network takes a radial shape, and the size of network is good, but the road network suffers from performance weaknesses despite the active daily population movement towards the city from the province's areas for work, daily needs, learning, or other services. The road network needs a circular connection between the areas, which is part of the proposed planning program in the second phase, along with improving technical specifications. It is also suggested to establish maritime transportation lines between tourist and coastal areas along the waterfront.

There is a somewhat hierarchical gradient based on the needs of the province. Some streets have been proposed to be organized in a way that allows mixed movement for vehicles and pedestrians, which does not meet the requirements of contemporary residential adjacency. Pedestrian pathways and dedicated roads have been suggested, but only during specified hours. Roads have been designated to serve expansion areas, but there is no proposal for public transportation. Instead, multi-story parking lots for private cars are allocated, which encourages increased private car usage and, consequently, increased congestion. Therefore, it seems that there have not been sufficient studies to support multiple transportation options (public transportation, walking, cycling) that maximize accessibility and movement within the region while reducing reliance on cars. On the contrary, the establishment of expansion areas through urban sprawl policy would require appropriate roads that encourage car dependency, with the absence of policies emphasizing the importance of diverse transportation options. The establishment of expansion areas through urban sprawl policy would lead to increased pollution and negative effects on the environment and health, contradicting principle No. 8 of smart growth and New Urbanism, which discuss the importance of multiple transportation choices. The proposals also lack the presence of developmental corridors, considering transport axes as opportunities that can be utilized to intensify activity, attract events, and diversify uses along transport axes. There have been no studies on integrated transport corridors with uses and activities that maximize the economic role on one hand and the interactive social role as an open space on the other hand. The study of the corridor with elements of attraction such as plants, trees, and visual design elements like cafeterias and rest areas has not been clarified. This weakens aesthetic values and social interaction, as the role of roads is limited to the traffic function in the zoning plan of Latakia city. Limiting the role of roads to the traffic function contradicts principle No. 5 of smart growth, which emphasizes the importance of attractive communities and a sense of place, and contradicts principles No. 8 and No. 14 of New Urbanism regarding the importance of transportation corridors. The importance of the relation between transport stations and activities and uses has not been emphasized. Intensifying activity and diversifying uses around transport stations are among the key policies of smart growth and New Urbanism. This can be seen in principle No. 15 of New Urbanism, which encourages high densities and land uses in close proximity to transport stations.

Regarding land uses, the land use plan in the city consists of forests, agricultural areas, comprising approximately 77% of the total land area. The remaining 16% includes residential areas, roads, lakes, and 7% of the land is suitable for agriculture at the city level. This means that agricultural land constitutes 43.6% of the city's area, residential areas 21.49%, open areas 4%, public facilities 15%, tourism 4.95%, vacant land 2.16%, the harbor area 3.345%, and industrial area 3.39% (Fig. 10)⁴⁶.



Fig. 10. Percentage of land uses in the master plan of Latakia city.

The above figure indicates the scarcity of available land for urban development in the province, highlighting the importance of balanced planning to preserve natural resources on one hand and meet the growing needs of the population on the other hand. The scarcity of open areas, which serve as a recreational outlet for the city's residents and contribute to creating interactive social and environmental opportunities, is also evident. There is a clear separation in land uses, and insufficient effort has been made to create compact, multi-use areas according to the principles of smart growth (principles No. 1 and No. 2) and New Urbanism (principle No. 11). As for the existing organized areas, their status and compatibility with the policies and principles of smart growth and New Urbanism have not been evaluated. Factors such as boundaries, central location, included uses, building density, residents' access to services within a ten-minute walk, availability of open spaces and streets, and their promotion of social interaction through natural elements, urban furniture,

⁴⁶ General Company for Engineering Studies and Technical Consultations 2013

and suitable activities have not been examined. Options for transportation and housing diversity and suitability were also omitted.

The study shows that the principles of smart growth and New Urbanism were not considered for new expansion areas. For the new expansion area No. 3, the positive aspects include providing residential buildings and daily services for people within a suitable radius, along with providing appropriate open spaces. However, many other aspects discussed by New Urbanism and smart growth have been neglected. Residential and touristic expansion areas No. 5-6 have been studied using the same methodology as area No. 3.

Table 4. Assessment of the extent to which the master plan achieves the principles of smart growth.

Principles of smart growth /10	Master plan in Latakia
1- Mix land uses	0.5
2- Take advantage of compact building design	0
3- Create a range of housing opportunities and choices	0.5
4- Create walkable neighborhoods	0
5- Foster distinctive, attractive communities with a strong sense of place	0
6- Preserve open space, farmland, natural beauty, and critical environmental areas	0.5
7- Strengthen and direct development towards existing communities	0.5
8- Provide a variety of transportation choices	0
9- Make development decisions predictable, fair, and cost effective	0.5
10- Encourage community and stakeholder collaboration in development decisions	0
Total 2.5/10	

After studying and analyzing Latakia city master plan and the process of the preparation, an evaluation was conducted to assess the extent to which Latakia city master plan and the process of the preparation achieved the principles of smart growth and New Urbanism at the levels of the region, metropolis, city, town, and neighborhood, district, and corridor. Each principle in the evaluation was assigned a score of 1. A score of 1 is given to the master plan if it fully achieves the principle, a score of 0.5 if it partially achieves the principle, and a score of 0 if it does not achieve the principle at all. In terms of the smart growth principles, the total score for these principles is 10. The current master plan attains a score of 2.5 out of 10 (Table 4), indicating that Latakia city master plan fulfills 25% of the smart growth principles (Fig. 11).

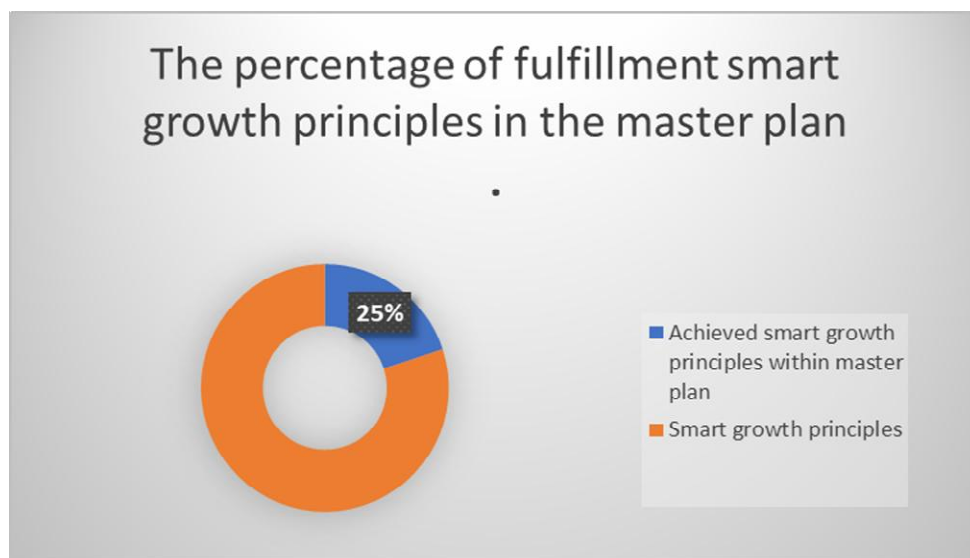


Fig. 11. Percentage of fulfillment smart growth principles in Latakia city master plan.

Regarding the principles of New Urbanism at various levels, including region (metropolis, city, and town), and neighborhood, district, and corridor, the total score for New Urbanism principles is 18. The current master plan in Latakia city achieves a score of 7.5 out of 18 for New Urbanism principles (Table 5), which means that master plan fulfills 41.67% of the New Urbanism principles (Fig. 12).

Table 5. Assessment of the extent to which the master plan achieves the principles of New Urbanism, the region level and the neighborhood, district, and corridor level.

The principles of New Urbanism/18		Master plan in Latakia
Region: metropolis, city, and town		
1-	Metropolitan regions are finite places with geographic boundaries derived from topography, watersheds, coastlines, farmlands, regional parks, and river basins. The metropolis is made of multiple centers that are cities, towns, and villages, each with its own identifiable center and edges.	1
2-	The metropolitan region is a fundamental economic unit of the contemporary world. Governmental cooperation, public policy, physical planning, and economic strategies must reflect this new reality.	0.5
3-	The metropolis has a necessary and fragile relationship to its agrarian hinterland and natural landscapes. The relationship is environmental, economic, and cultural. Farmland and nature are as important to the metropolis as the garden is to the house.	0.5
4-	Development patterns should not blur or eradicate the edges of the metropolis. Infill development within existing urban areas conserves environmental resources, economic investment, and social fabric, while reclaiming marginal and abandoned areas. Metropolitan regions should develop strategies to encourage such infill development over peripheral expansion.	0.5
5-	Where appropriate, new development contiguous to urban boundaries should be organized as neighborhoods and districts, and be integrated with the existing urban pattern. Noncontiguous development should be organized as towns and villages with their own urban edges, and planned for a jobs/housing balance, not as bedroom suburbs.	1
6-	The development and redevelopment of towns and cities should respect historical patterns, precedents, and boundaries.	0.5
7-	Cities and towns should bring into proximity a broad spectrum of public and private uses to support a regional economy that benefits people of all incomes. Affordable housing should be distributed throughout the region to match job opportunities and to avoid concentrations of poverty.	0.5
8-	The physical organization of the region should be supported by a framework of transportation alternatives. Transit, pedestrian, and bicycle systems should maximize access and mobility throughout the region while reducing dependence upon the automobile.	0
9-	Revenues and resources can be shared more cooperatively among the municipalities and centers within regions to avoid destructive competition for tax base and to promote rational coordination of transportation, recreation, public services, housing, and community institutions.	0.5
Neighborhood, district, and corridor		Master plan in Latakia
10-	The neighborhood, the district, and the corridor are the essential elements of development and redevelopment in the metropolis. They form identifiable areas that encourage citizens to take responsibility for their maintenance and evolution.	0
11-	Neighborhoods should be compact, pedestrian friendly, and mixed-use. Districts generally emphasize a special single use, and should follow the principles of neighborhood design when possible. Corridors are regional connectors of neighborhoods and districts; they range from boulevards and rail lines to rivers and parkways.	0
12-	Many activities of daily living should occur within walking distance, allowing independence to those who do not drive, especially the elderly and the young. Interconnected networks of streets should be designed to encourage walking, reduce the number and length of automobile trips, and conserve energy.	0.5

13- Within neighborhoods, a broad range of housing types and price levels can bring people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to an authentic community.	0.5
14- Transit corridors, when properly planned and coordinated, can help organize metropolitan structure and revitalize urban centers. In contrast, highway corridors should not displace investment from existing centers.	0.5
15- Appropriate building densities and land uses should be within walking distance of transit stops, permitting public transit to become a viable alternative to the automobile.	0
16- Concentrations of civic, institutional, and commercial activity should be embedded in neighborhoods and districts, not isolated in remote, single-use complexes. Schools should be sized and located to enable children to walk or bicycle to them.	0.5
17- The economic health and harmonious evolution of neighborhoods, districts, and corridors can be improved through graphic urban design codes that serve as predictable guides for change.	0
18- A range of parks, from tot-lots and village greens to ballfields and community gardens, should be distributed within neighborhoods. Conservation areas and open lands should be used to define and connect different neighborhoods and districts.	0.5
Total 7.5/18	

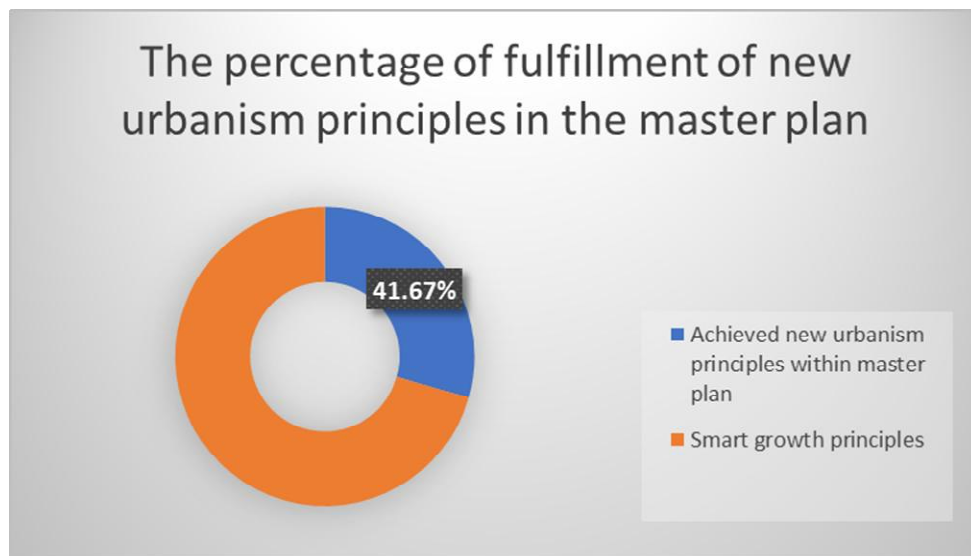


Fig. 12. Percentage of fulfillment of New Urbanism principles in Latakia master plan.

5. Conclusion

- After reviewing and evaluating the master plan for the city of Latakia and the preparation method, it became clear that they only fulfill 25% of the smart growth principles and 41.67% of the New Urbanism principles. This indicates the need to reconsider the formulation of plans, criteria, and principles, and more importantly, search for new tools that enable the integration of smart growth and New Urbanism principles with conventional principles in a way that suits local conditions and specificity while achieving the goals of smart growth and New Urbanism.
- There are deficiencies in the main objective and sub-objectives of the master plan for the city of Latakia, manifested in the absence of a set of smart growth and New Urbanism principles. Therefore, it is necessary to reassess or modify the objectives to align them with the goals of smart growth and New Urbanism.

- The foundations on which the division of city into programmatic zones was based are not clear, nor are they comprehensive in terms of smart growth and New Urbanism principles.
- Since the main objective and sub-objectives of the master plan do not encompass the principles of smart growth and New Urbanism, the proposed strategy to achieve the goal of the master plan for the city will be limited. The strategy overlooks many principles at the economic, social, and urban levels, with the environmental aspect being the most neglected.
- The proposed master plan is considered the result of several stages, starting from the comprehensive plan, through the planning program and structural plan and the alternatives of structural plan. Each stage has its drawbacks and shortcomings that affect the final master plan. Therefore, the foundations on which master plan is based do not allow for the creation of smart development patterns. The result is a master plan that reinforces planning of separate land uses, thus promoting conventional development patterns detrimental to the environment and health and having negative impacts on social and urban aspects, without contributing to strengthening the economy.
- During the master plan preparation in the city of Latakia, it was observed that the community had not been engaged in the development process at any stage. Community sole opportunity was to object to the master plan after its issuance. Consequently, this underscores the importance of incorporating public participation in the master plan preparation process and involving local communities in decision-making. This approach, which incorporates public participation, can play a significant role in identifying the needs and concerns of the community, ultimately resulting in more inclusive and effective master plans.

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Primit: 5 noiembrie 2023; Acceptat: 10 noiembrie 2023

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