An integrated approach for sustainable development cities on the develops urban coastal corridors

Engy H. Saeed 1, Yostina A. Shenouda 2, Nermeen A. Omar 3

1 Architecture engineering department, engineering Faculty, Tanta University, Egypt – email: engy_hassan@f-eng.tanta.edu.eg
2 Architecture engineering department, engineering Faculty, Tanta University, Egypt – email: youstina146674.pg@f-eng.tanta.edu.eg
3 Architecture engineering department, engineering Faculty, Tanta University, Egypt – email: nermeen_omar@f-eng.tanta.edu.eg

Abstract. Most cities in the world face the problem of overcrowding, which negatively affects cities and their urban development, causing many problems such as damage to gardens, deterioration of quality of life and services. The idea of improving the corridor has become one of the ideas affecting the development of the country and the cities in which it is located. However, in many development strategies, roads, such as the European approach, ignore some standards or make them the only means of transportation that do not build the city, so the road This study focuses on the integration process for major cities in the city. Corridor development, especially coastal corridors. It also defines the process for improving integration into the corridor and determines the necessary procedures. Based on the knowledge of success, the study uses it by identifying the city of Alamein as one of the most important cities. Regarding the West Coast Development Corridor proposal. The results and recommendations show how development planning can influence the development and sustainable development of cities.

Keywords: development corridor, urban coastal corridor, sustainable development, urban growth.

i. Introduction

Urban development took place in the 1990s with the recognition that communications and economic openness could be improved more effectively through economic development rather than the development of growing areas. The concept was later modified to include more elements such as relationships and work, as well as work. Therefore, planning the development path to ensure the stable achievement of economic, social or environmental goals becomes a complex and multifaceted task. Although the development process has a long history, its potential impact on the various types and models of development plans prepared and analyzed are designed to achieve all economic, social and local level objectives, whether on land or offshore.

The development of the coastal city refers to the coastal city and its future, the future of the city, the development of human and economic resources, the development of infrastructure for urban growth and helping to create more jobs. Multiple and mixed use.

In Egypt, the northwest coast and its backward desert areas have natural resources that can play a role in serving the country in multifaceted activities and the interest in the western coastal corridor is due to its potential to attract the overpopulation of the Nile Valley and provide opportunities for economic and social development and contribute to the sustainable development of the cities located on it hence the need to maximize using this unique area by developing the western coastal development corridor.

A. The research aim:
The research aims to provide an integrated approach to developing coastal urban corridors to achieve sustainable development of cities and urban centers located on.

The following research objectives would facilitate achieving this aim:
Identify the existing problems related to coastal urban corridors and their impact on the environment. Analyze the potential of coastal urban corridors to achieve sustainable development. Develop an integrated approach for sustainable development of coastal urban corridors.

B. Research method:
Theoretical study the research used the deductive and inductive practice in combination to collect and analyze data and information on developing coastal corridors as well as format the literature review about the concept and the theories of coastal corridor development, its importance, and its different approaches.

Analytical study the research used the proposed approach to analyze the developing coastal corridor and the main city of Alamein, Egypt. The results of the study can be used to inform the development of the Alamein city and the coastal corridor. The research identified the major urban development challenges the city was facing. It also identified potential solutions for the efficient development of Alamein. Finally, the research concluded that the proposed approach could be used to improve the city's urban development with the recommendations.

ii. Coastal development corridor (definition – concept)
Coastal development corridors are areas in which economic and urban development policies are concentrated, leading to increased investment and development in these areas. As a result, these corridors stimulate social and economic growth in the region, creating new job opportunities and improving access to services.

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A. Definition of coastal corridor:

Various definitions try to explain what is meant by the term, “Development Corridor.” The definitions reveal that this phenomenon is not so simple to define. The different perceptions studied in a variety of sources addressing development corridors support this view.

Prieumus, Zonneveld, and Trip [1] have described corridors to be “bundles of infrastructure that link two or more urban areas” [2] highways, rail connections, dedicated bus lanes, bicycle lanes, canals, short-sea connections, and air connections are some examples of these bundles. As a result, different types of transportation, such as cars, trains, trams, ships, and airplanes, are connected via corridors, and includes both freight and passenger transportation. To define a corridor more broadly, it may also include infrastructure such as power lines, cables, and oil pipelines. Corridors have changed over time, reflecting a legacy of significant technological advancements in transportation and the creation of different types of infrastructure. [2].

- Elements of development corridor:

Development corridor elements are physical and non-physical features used to create an environment enabling economic activity and development. These elements include infrastructure, access to resources, and services such as public transportation and education.

Currently, there is no single recognized illustration of what makes up a corridor. Nonetheless, three elements of corridor development are accepted. Accordingly, a corridor may be defined as:

- An infrastructure axis
- An economic development axis
- An urbanization axis

B. Concept of coastal corridor:

Warnich and Verster showed that the development corridor concept is outdated. About 100 years ago, with the advent of densely populated concentric industrial cities, the linear urban model was introduced as an alternative. Conceptually, this is very similar to modern corridors in urban areas, but on a different scale [3]. That is, the development of the corridor largely depends on the path chosen. This is the core of the Webell corridor idea [4].

According to Friedman in 1966, development corridors "consist of limited areas along important connecting highways between several nodes. Despite being less concentrated, the economies of these areas have room to grow. The major nodes of these corridors promote growth. It must be sufficiently developed to be able to do so, but not too far off. [5]"

The definition of a corridor covers the different scales (regional, regional, transnational) as well as the different scales (freight and passenger) and modes of transport (road, rail and inland waterways) associated with corridor development. The corridor paradigm proposed by Chapman et al. 2003 [8] is compatible with this idea. Corridors are therefore understood to include complex infrastructure connections that support both freight and passenger transport and operate at a variety of scales. That is, current corridor development focuses on the complex relationships between spatial structure, economic benefits, and transportation opportunities (Witte, 2014) (Table 1). The study will focus on regional scale, road and rail transport modes, as well as freight and passenger transport.

<table>
<thead>
<tr>
<th>Level</th>
<th>Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope</td>
<td>a) Freight</td>
</tr>
<tr>
<td>Mode</td>
<td>a) Road</td>
</tr>
<tr>
<td></td>
<td>b) Waterways</td>
</tr>
<tr>
<td>Scale</td>
<td>a) Local</td>
</tr>
<tr>
<td></td>
<td>b) Transnational</td>
</tr>
<tr>
<td>Dimension</td>
<td>a) Transport</td>
</tr>
<tr>
<td></td>
<td>b) Economic</td>
</tr>
</tbody>
</table>

Therefore, good governance must be established in local and regional decisions to achieve common goals such as economic development, transportation development, environmental protection and social.

The development of coasts is therefore dependent on their proximity to the coast. Although the coastal zone is mostly connected to the sea, it also includes lakes and some non-water bodies that may be affected by coastal conditions. Some of these paths run along the coast, pass through it, or connect to the interior through it. Some are highways that intersect or connect with bays or estuaries [10].

These journeys are ways to improve health, conservation and ecological sustainability.

iii. Forms of corridors

This section describes the various types of corridors, including the growth corridor, transport corridor, and activity corridor.

A. Activity Corridor:

It is important to understand the function and relationship of the spine as a pathway of movement. As a result, a large march was organized in the middle of a crowded street. Central roads are major roads connecting one or more major cities, connecting directly to the backbone and providing active access to most of the society's integrated and commercial energy areas.
Many materials can be used for the method to work efficiently. These devices include the main artery; public transport options, connections between nodes and sub-nodes; interaction of people, access to services, development efforts and finally public capital are realistically addressed, at least in the field of environmental activities. The existence of all these brings unity to the city rather than urban sprawl. [3] (Figure 1).

Andersen and Burnett (1998) define a road as "a straight line of land or territory that provides regional transportation through major operations, located around one or more major transportation hubs, throughout a city or urban area." defines convenience and easy access to adjacent areas, populated and mixed land use" [11].

B. Growth Corridor
The term "growth corridor" in the context of urban areas refers to a variety of scales that may include various types of development. Some believe that the growth path can be transformed into a career path. [3]. In the development method, the strategic direction of future urban development is shown as follows [12]:

Zones suitable for urban development and different types of development suitable for all areas (residential, commercial, commercial, urban areas). A transportation strategy is needed to support urban growth. This ensures that people who live and work in the development area have access to jobs, services and a variety of transportation options. These areas are suitable for a variety of construction projects, including large urban areas, businesses and large commercial centers.

Integrated open space will meet the future recreational and recreational needs of community development while preserving biodiversity, healthy clean rivers, and features and characteristics of the urban environment.

Regional connections, especially sewage and water, are necessary to support development. Areas that need protection due to their environmental or landscape importance.

C. Transport corridor:
Campbell and Meades (2007) define transportation as “many ways of connecting two elements of the economy.” Hesse and Rodrigue (2006) also define transportation as "a network of facilities that provide access to the bulk circulation of cargo, passengers and/or information". The land routes (roads and railways) developed between major centers indicate the geographical organization of a region. [11th].

The expansion of urban areas creates more traffic in corridors, and investments in transportation allow urban areas to expand further. Therefore, road development strategies should include municipal policies and communication investments in residential areas along the corridor [13].

Shipping is a group of systems that connect two or more systems (road, rail and water). Urban area. Intermodal transportation (i.e., transit) uses more than one mode of transportation, including road, rail, boat, or shuttle. [9].

iv. The impact of developing the coastal corridor
The impact of development refers to the consequences and effects that various forms of development have on various aspects of society, the economy, and the environment. Development can occur in various forms, including economic development, industrial development, and social development.

A. The impact of coastal development corridor on the country’s urban development:
Positive impacts include increased economic growth, better infrastructure, and improved access to services. Negative impacts include increased pollution, traffic congestion, and a decrease in green spaces.

B. Impacts of development on the city of coastal corridor:
Positive impacts include increased economic activity, job opportunities, and improved infrastructure. Negative impacts include increased pollution, traffic congestion, and displacement of existing communities.

The following table will summarize some of these positive and negative perceptions of the development corridor (Table 2) [15] [16].
A. Mega corridors and economic development

"Mega corridor" is the name given to the special interpretation of the corridor. [2] [14] The multifaceted, transnational and cross-border nature of the transport corridor is the difference between the concept of the corridor and its history. In this sense, the concept considers corridors to be the axis of urban development and economic growth, as well as infrastructure. The concept of corridor has changed recently, at least in the EU, with the addition of prefixes such as "mega" or "euro". [12]. The European Corridor or Mega Corridor, which also includes rail and road, connects all major cities in northwestern Europe. The European Economic Corridor (CEF) will allow countries to bypass European ports and the Suez Canal, reducing transit times and costs. The corridor will also create new markets and promote trade among participating countries. The corridor will also create jobs and reduce carbon emissions due to shorter commutes. In addition, the corridor will create a new direct route, making European products more efficient. Efficiency will save time and money costs, which will be passed on to customers in the form of lower prices. Additionally, the corridor will reduce pressure on existing infrastructure as it will cause cargo to be spread out in different ways, leading to fewer ports and better cargo. The proposed mega corridor, also known as the European Corridor, will connect Europe's major ports, cities and business centers through efficient communications.

- New transnational cooperation zones with specific requirements and obligations for natural, cultural, economic, and environmental issues.
- Important development and transportation axis across international borders.
- Investment hubs and international entry points.

B. Spatial development initiative (SDI):

The investment strategy that supports economic growth in areas with less potential is a spatial structure. It also refers to all the activities created by the corridor created by this foundation. [23]

Typically, an SDI consists of the following elements:

- The fundamental systems for organizing freight and transportation
- Institutional policies and frameworks
- Projects that act as anchors and clusters
- Including neighborhood organizations and small businesses

Key Objectives: Long-haul vehicles that meet or exceed SDI requirements in terms of costs and carbon emissions, including:

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Table 2: Positive and negative perceptions of development corridor [15] [16]

<table>
<thead>
<tr>
<th>Coastal development corridor interpretation</th>
<th>Positive interpretation</th>
<th>Negative interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Attractiveness for the location of industries and companies (lower transport costs)</td>
<td>a) Uncontrolled urban sprawl ribbon development along transport routes and suburbanization</td>
<td></td>
</tr>
<tr>
<td>b) New job opportunities in rural areas</td>
<td>b) Decentralization of urban functions and investment reduction in cities</td>
<td></td>
</tr>
<tr>
<td>c) Hampering in the depopulation phenomenon and strengthening the structure of rural areas</td>
<td>c) Additional air pollution from car exhaust gasses and noise</td>
<td></td>
</tr>
<tr>
<td>d) Ease highly dense urban centers from the immigration pressure</td>
<td>d) Increase dependency of private cars and auto traffic</td>
<td></td>
</tr>
<tr>
<td>e) Increased flows of people and goods</td>
<td>e) Traffic congestion and delays</td>
<td></td>
</tr>
<tr>
<td>f) Additional consumption demands in the transit and halting areas</td>
<td>f) Landscape fragmentation</td>
<td></td>
</tr>
<tr>
<td>g) Emergence and development of touristic activities, accommodation and catering, gas stations, auto services, strip malls</td>
<td>g) Waste of land and reduction of agricultural areas</td>
<td></td>
</tr>
<tr>
<td>h) Increase the pressure for using natural and non-renewable resources</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These negative perceptions can be mitigated through careful planning and community engagement. Engaging can achieve this.

It involves community members in the decision-making process and making sure that any development plans are aligned with the goals and values of the local community. This can be achieved by engaging with community members in the decision-making process and provided any development plans are aligned with the goals and values of the local community. Also, this will help guarantee that any potential development corridor benefits, such as improved infrastructure and job opportunities, are realized by the local community. Local input should be a key part of the development corridor's design and implementation process. This will help to make sure that the development corridor serves the needs of the local community and that it is implemented in a fair and sustainable manner.

v. Development corridors approach

This approach focuses on creating large-scale projects that benefit the local population and stimulate economic growth and social life. It is based on the idea that a coordinated effort between governments, businesses, and NGOs can lead to long-term, sustainable development.
• SDI increases dependence on land costs and creates controversy.

• KVA is not well understood locally and competitively

• There are misconceptions about how small public investments can support large private investments.

• SDI affects both rich and poor as they bet on future progress that will take a long time to happen.

Due to the overall success of MDC and the widespread adoption of the SDI strategy in development planning across Africa, there are concerns regarding the SDI approach.

C. The Asian Development Bank (ADB):
Build a network of business people in specific fields based on business opportunities. The African Development Bank (AfDB) agrees with this point. The advancement of development promotes social and economic development. Simple traffic usually only affects the area between them. The impact of the corridor increases as infrastructure, border crossings, industrial areas and urban areas grow near and encroach on the corridor. Business transactions can move in two directions; from the outdoor area to the corridor and from there to the corridor.

Business and success are two ways to support each other. For the development of health and economic growth, the better way is to connect with areas of high economic potential, that is, business “terminal nodes” (as the World Bank calls gateways to transportation), as well as demand and supply drivers. Transnational corridors are the "used" and "desired" ends of corridors in different countries.

Highlights the major characteristics of an economic corridor based on ADB and AfDB definitions. [23]. The general corridor development goal is into four objectives:

- Reducing transportation costs and average travel times.
- Decrease transportation costs and time variability.
- Increase commerce.
- Other facets of the national economy.

vi. Proposed integrated approach for coastal development corridors
This approach includes planning, engineering, economic, and ecological strategies to protect natural resources while also supporting economic development. (figure3) It emphasizes preserving and enhancing coastal ecosystems to create resilient and sustainable coastal communities. It also seeks to incorporate the unique cultural heritage of the region. Additionally, it could provide new opportunities for economic growth.
### Environmental Dimension

**a) Morphological Dimension**
- Minimization of adverse impacts
- Coastal scenic and visual qualities
- Environment, heritage, recreation, and natural resources
- Natural hazards

**b) Climate Change and Resilience**
- Developing strategies to mitigate the effects of extreme weather, sea level rise, and other climate-related risks

**c) Preserving Biodiversity**
- Reducing beaches
- Preservation of different coastal life

### Social Dimension

**a) Population Participation and Preferences**
- Considers the needs of local people, their access to resources and infrastructure

**b) Benefits for the Population**
- Create a suitable social environment
- Job Creation

**c) Promoting Social Activities and Interaction**
- Seek balance the needs of people and the environment to ensure sustainability and resilience in the coastal area
- The importance of public participation in decision-making to make sure that the needs of local communities are considered.

### Governance Structure Dimension

**a) Institutional Dimension**
- Upgrade the regional road network
- Distinguish the type and nature of utilities
- Coastal corridor and water quality degradation
- Environmentally sensitive areas

**b) Political Dimension**
- Recognize the level of potential risk to life and property from coastal hazards
- Development in unsuitable locations

**c) Administrative (Management and Control Structure)**
- Help to guide decisions
- Guarantee that tasks are executed properly,
- Control structure in place to make sure that goals are met

### Case Study Western Coastal Corridor (Al Alamein, Egypt)

The case study of the city of Alamein analyzes the development of the coastal corridor approach because it is a specialized city with regional services and depends on its strong local economy, which depends on the tourist and historical location. It is a city with a special urban character, providing a safe life and an urban pattern that promotes an attractive life.

**A. The process and the analysis for the case study:**

The technique for studying the western coastal corridor and Al Alamein city can involve several steps. Here is a suggested approach: Literature review conduct a comprehensive review of existing literature, reports, and studies related to the western coastal corridor and Al Alamein city. The reason for this choice is that the strategic development axis prepared by the state is one of the most important projects for the development of the country, is focused on special design space, usability and financial benefit, and will connect coastal cities to other axes on it.

According to spatial analysis, the location of Alamein City was selected as a growth area and an important development area. The following features define it (General Physical Planning Organization, 2007) [25]:

- Close to two eastern cities, Al Hammam and Burj Al Arab.
- Access to transportation in the region (International Coastal Corridor Wadi El Natrun Corridor).
- To provide land suitable for urban development without affecting agriculture and tourism.
- Access to infrastructure that supports urban development (roads, airports, railways, power plants, generators, communications, etc.).
- Provide connection points for various businesses in and around the city.
- The distance from the chosen location to the beach area may be helpful in the future.

Data collection: collect relevant data on the western coastal corridor and Al Alamein city from government sources like the ministry of housing, utilities, and urban development, research institutions, and other reliable sources, stakeholder engagement by visiting the case study and this can involve...
interviews to gather their perspectives, insights, and concerns related to the western coastal corridor and Al Alamein city.

Data analysis: analyze the collected data using appropriate statistical and analytical techniques. The objective is to identify patterns, trends, and relationships between different variables.

By following this process, we can gain a comprehensive understanding of the western coastal corridor and Al Alamein city, identify areas of improvement, and provide evidence-based recommendations for sustainable development.

B. **Analysis of developing the western corridor / the Alamein city:**

Developing the western corridor and Alamein city has been significant in transforming these areas into thriving urban centers. This analysis will examine the key aspects of the development, including infrastructure, political structure, social structure, environmental, and economic opportunities.

C. **Location of the western coastal corridor:**

The Mediterranean Sea is approximately 500 km long, from the city of Haman in the east to the city of Salem in the west; The Libyan border is approximately 400 kilometers long, from the city of Salem to the south of the Siwa Depression; Alexandria, Behira, Giza, and Xingu provinces, as well as Alexandria province and Alexandria region, are the area of the study area. Thanks to the national railway and highway, transportation is possible from nearby regions and from the whole country. [24]

D. **Historical background:**

The city of Alamein became famous worldwide due to World War II. There are minefields south of Alamein (13.8 million mines laid over an area of 1,670 square kilometers, 56% of which are in the western desert). The city has hosted many monuments and witnessed many historical events.

1. **Impact and development of coastal corridor set out objectives:**
   - By establishing urban region, the issue of high population density is addressed.
   - Using the region's economic resources to supply strong economic entities.
   - Establishing an economic base and social services to improve people's lives and foster the development of human skills.
   - Achieving balanced development between the centers of the region.
   - Achieving environmental improvement, resources conservation and Bedouin heritage preservation.
   - Improving the relationship between the research area and the surrounding area by incorporating the development philosophies of the Arab nations and the nearby Mediterranean towns.
   - Combining the traits and elements with El Alamein city.

E. **Study area problem:**

The study area problem in El Alamein presents a unique opportunity to delve into the historical significance and contemporary challenges faced by this region. El Alamein is located on the western coastal corridor of Egypt. However, beyond its historical significance, El Alamein also faces various issues that warrant attention and investigation. This table (Table 4) aims to explore the study area problem in El Alamein, shedding light on the challenges that researchers and stakeholders can address to gain a deeper understanding of the region's past, present, and future. By examining these study area problems, we can uncover valuable insights that contribute to historical preservation, environmental conservation, and socioeconomic development.
F. The impact on the city of Alamein:
Application of the proposed approach to the development of the western coastal development corridor and its impact on the city of Alamein (Table 5).

Table 5: Analysis of the five approaches for the case study

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Agency</th>
<th>Situation</th>
<th>Proposal for improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation facilities and maintenance and enhancement of public access a</td>
<td>Poor communication with transport media and regional roads, weak pedestrian traffic facilities and the absence of public transportation facilities. b</td>
<td>To benefit from the outstanding location as well as international and regional linkage to develop the city's infrastructure services and attract investment to it. c</td>
<td></td>
</tr>
<tr>
<td>Capital facilities</td>
<td>High unemployment rates among the youth of the city and the lack of technical schools. Lack of specialized medical physicians' weak coordination between community supporting agencies. Lack of large projects. b</td>
<td>The possibility of attracting non-state and international actors for supporting services within the region. the presence of investors willing to contribute to the projects. c</td>
<td></td>
</tr>
<tr>
<td>Design quality</td>
<td>Develop a comprehensive development vision for the region on creating aesthetically pleasing and functional spaces. This includes considerations for architecture, landscaping, and urban design principles. By prioritizing design quality, communities can create more attractive and livable environments. c</td>
<td>Useful design of the corridor-coast segment and the omission of internal and regional cities without considering the region's social and environmental level b</td>
<td></td>
</tr>
<tr>
<td>Coastal-dependent and coastal-related land use a</td>
<td>Presence of different patterns from urban fabric. non-urban balance between north and south parts of the city and the city center Bedouin feature scattered in some areas of the city. lots of buildings are in poor condition. b</td>
<td>The location of the city near the main touristic centers increases the chances of growth and prosperity. c</td>
<td></td>
</tr>
<tr>
<td>Concentrating growth and activities in centers a</td>
<td>The study region is only active for three months of the year because it is a seasonal location. The tourist town Marina prevents further expansion, which causes urban segregation between it and the metropolis. b</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### B-Economic dimension:

<table>
<thead>
<tr>
<th>Improvement and execution of the planning process</th>
<th>Poor service capabilities for the touristic attractions: low efficiency of technical workers in the field of tourism-seasonal tourism on the north.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Attention to technical education for its economic and social benefits Job Creation.</td>
</tr>
<tr>
<td>Access to coastal assets</td>
<td>Lack of adequate services, the difficulty of access to coastal assets due to the presence of minefields in these areas-urban segregation between touristic attractions within the city and beaches.</td>
</tr>
<tr>
<td></td>
<td>To benefit from the vital position of El Alamein city, developing the city's infrastructure services and attracting investment to it, developing these areas requires demining.</td>
</tr>
<tr>
<td>Coastal asset systems</td>
<td>Development of Qattara depression, which provides a future vision for developing Egypt.</td>
</tr>
<tr>
<td>Activities that enhance the value of coastal assets</td>
<td>The availability of historical and heritage sites in the area, the presence of marine activities along the shoreline, and the Bedouin's large percentage of desert lands that would be appropriate for safari tourists.</td>
</tr>
<tr>
<td></td>
<td>To benefit from the vital position of coastal resources, establishing activities that enhance the value of coastal assets and attract investment to it- development of the city's infrastructure facilities.</td>
</tr>
<tr>
<td>Development work in the region</td>
<td>Prolonged neglect of development led to the degradation of infrastructure and services provided (medical and educational).</td>
</tr>
</tbody>
</table>

### C-Environmental dimension:

| Coastal scenic and visual qualities                | Lack of interest in the unique and distinct nature of the region the development pillar, despite its privilege in transport and connecting cities, has resulted in the removal of part of the region's environmental life. |
| Environment, heritage, recreation, and natural resources | Availability of many urban enclaves and vacant areas that are not exploited yet. the presence of numerous archeological and heritage features within the city, deterioration of the physical environment in some areas and the poor condition of the buildings. |
| Natural hazards                                    | There is an opportunity to put the city on the world tourism map by paying attention to the physical and environmental design that reflects the actual value of the region. |
|                                                   | The presence of parallel to the beach chains of underwater limestone margins. The building up of the coastal zone (legally or illegally), particularly close to or on the foreshore and coastline exacerbates the degradation of these places, which are also important tourist attractions. |

### Meeting the needs of the population

- The region's lack of basic life because of the neglect of development for decades; not considering the social and environmental conditions of the population.
- Community dialogue to discuss people's needs and needs and participation in the development agenda this may lead us to the last point: indigenous people's participation in needs and requirements to achieve a suitable environment.
D-Social dimension:

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Current situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population participation and preference's</td>
<td>Population participation and preference benefits for the population promoting social activities and interaction considers the needs of local people and their access to resources and infrastructure seeks to balance the needs of people and the environment providing sustainability and resilience in the coastal area emphasizes the importance of public participation in decision-making to make sure that the needs of local communities are considered.</td>
</tr>
</tbody>
</table>

E-Governance dimension:

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Current situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional dimension</td>
<td>Upgrade the regional reach network the coastal corridor does not have appropriate planning and urban design possibility of developing infrastructure coastal corridor and water quality degradation a relative increase in bacterial contamination level and chlorophyll pollution in these areas.</td>
</tr>
<tr>
<td>Political dimension</td>
<td>Recognize the level of potential risk to life and property from coastal uncontrolled urbanization caused by legal or illegal homes, tourist installations have blighted the coastal zone with serious negative and irreversible alterations.</td>
</tr>
<tr>
<td>Administrative (management and control</td>
<td>There is no community participation or dialogue to develop specific development strategies that benefit indigenous peoples' interests. Do not use cadres with expertise to provide the best methods of development for sustainable development.</td>
</tr>
<tr>
<td>structure)</td>
<td>There is an opportunity to track the trends of former and current changes in the sea level to assess the potential risks.</td>
</tr>
<tr>
<td></td>
<td>There is an opportunity to get rid of the drainage of excess water through the ability of treatment plants in.</td>
</tr>
</tbody>
</table>

viii. Conclusion

Development corridors were not consciously identified or applied in Egypt. The main economic development prospects are realized while avoiding drawbacks like traffic and unchecked urban sprawl along vital transportation corridors. As well as minimizing the environmental problems caused by these types of development the research focuses on the coastal corridor development to carry out a qualitative assessment of coastal corridor development with its different approaches, dimensions, aspects, and impact on the growth of the city; improve the environment; recognize the level of potential risk to life and property from natural hazards.

The research devised a qualitative assessment that could be used to identify any coastal corridor development project, showing each approach related to different dimensions and aspects. Therefore, the conceptualization consists of five approaches, which are: physical and spatial structure; governance structure, and economic structure, and environmental structure and social structure. The coastal corridor should be both physically and visually suitable for locals and tourists, place to protect the natural environment and biodiversity.

The governance structure of the coastal corridor development should involve the participation of all relevant stakeholders, including local communities, government agencies, and private sector entities. Effective coordination and cooperation among these stakeholders are essential for successful development. Additionally, clear regulations and policies should be established to guide the development process and ensure sustainable growth.

The economic structure of the coastal corridor should aim to attract investment and promote economic activities. This can be achieved through developing tourism facilities, recreational areas, and commercial zones. The corridor should also provide opportunities for job creation and income generation for the local population.

The environmental structure of coastal corridor development should prioritize the protection and preservation of the natural environment. Measures should be taken to mitigate the impact of development on coastal ecosystems, such as implementing sustainable land use practices, managing waste and pollution, and conserving natural resources.

Lastly, the social structure of the coastal corridor should focus on improving the quality of life for the local population. This can be done through the provision of essential services and amenities, such as healthcare facilities, educational institutions, and recreational spaces. Additionally, efforts should be made to promote social cohesion and inclusivity within the community.
Overall, the qualitative assessment of coastal corridor development should consider all these dimensions and aspects to provide a holistic and sustainable approach. By addressing the challenges and incorporating integrated approaches, coastal corridor development can contribute to the growth of the city, improve the environment, and mitigate potential risks from natural hazards.

ix. Recommendations

Based on the case study, some aspects of the coastal corridor development approach were found to not cover all aspects. The following discusses the recommendations addressed to government officials, planners, and architects for successful comprehensive integrated development approaches to strengthen cities' coastal corridor.

1. As a starting point for the city's expansion, coastal routes should be identified and considered.
2. Improving the governance model regarding infrastructure, urbanization, and economic growth.
3. The best environmental development strategy for the coastal corridor.
4. Climate changes, which in turn affect the coastal corridor, must be considered to avoid expected damage as much as possible.
5. Cooperation between various political sectors and societal groups.
6. Increasing collaboration between public and commercial institutions.
7. Enhancing human potential by paying attention to the environment of health and education.
8. International coordination because certain corridors do span international borders.
9. Improving cooperation between the federal government and local governments.
10. It is important to examine the approaches that have not been used in previous coastal corridor development projects to determine whether they have the potential to result in an integrated, comprehensive development approach or not.

The governance structure should not prevent planners and architects from applying coastal corridor development within integrated approaches through the physical environment, social, project management, and economic considerations.

In conclusion, it is proved that following the dimensions and aspects of coastal corridor development approaches will enhance the growth of cities. To apply successful integrated comprehensive approaches to development, it is recommended that new coastal corridor development projects implement the previously mentioned with its different approaches.

References


[23] SDI was launched in South Africa with the principal purpose of shifting South Africa from an import-oriented economy, attracting investments, and creating employment.

