

## Chapter 7

# Evaluation of Sustainable Development Concepts in the city of Biskra

\* Djamilia Djaghrouri, Aicha Chetara, Lazher Boudjellal, Moussadek Benabbas

### Introduction

The city is not the subject of a particular science but rather the result of multiple disciplines, reflecting the absence of a comprehensive theory of the city. This complexity is evident in the various methods of urban production, the diversity of actors involved, as well as the social, political changes, and challenges encountered. To regulate these urban dysfunctions, regulatory urban planning has emerged (Benabbas, & Djaghrouri, 2017), although it is considered an old system, derived from civil laws where inhabitants submit to the law of the city.

After independence, Algeria faced many challenges. A rapidly growing population, various forms of peripheral urban sprawl characterized by precarious settlements and shantytowns, a discontinuous urban fabric, anarchic urbanization, and the insecurity caused by terrorism in the 1990s exacerbated the exclusion of the population to urban areas, which led to the breakup of the city. According to Souiah (2010) cited by Souri (2023), this period was marked by significant urban fragmentation and decentralization of central or pericentral spaces.

Faced with this situation, Algeria has gone through various stages in terms of urban management legislation, notably by introducing different urban planning instruments, from the Provisional Urban Plan (PUP) to the Urban Modernization Plan (PMU) in the 60s and 70s, then the Master Urban Plan (PUD) and, more recently, the Master Development and Urban Plan (PDAU) in the 1990s, followed by the Land use Plan (POS) (RAHMOUN, 2013). According to Ouzir and Khalfallah (2016), these aforementioned planning and urban development instruments define the fundamental directions for territorial development and specify the necessary conditions for rational use of space. However, despite these efforts, these instruments have shown shortcomings in their ability to effectively respond to current urban challenges (Lakhdar Hamina & Abbas, 2015; THAZIR, & ZEHIOUA HECHAM, 2020).

From there, significant problems continued to arise in the management of Algerian cities, particularly those related to the degradation of urban quality of life, loss of built environment quality, environmental impacts of human activities, housing, transportation, urban planning, and sanitation, etc. This situation stems from the inability of urban planning instruments to effectively address the challenges encountered in urban space.

Faced with accelerated urbanization and the ongoing deterioration of their environment, the concept of sustainable development gradually emerged as a new orientation for urban public action aimed at making cities more livable and, above all, more comfortable (Piéchaud, 2008). Following the Brundtland Report in 1987, sustainable development calls for the preservation of the environment and meeting the needs of present generations without compromising the ability of future generations to meet their own needs. Sustainable development quickly became a major imperative of urban public action after the Rio Conference "Earth Summit" in 1992, where local Agenda 21s were formulated. This led to a growing awareness that sustainability requires not only integrating the environmental dimension but also the social and economic dimensions into urban planning and management (Dempsey et al., 2009; AMIN, & MUHY AL-DIN, 2019).

Integrating sustainability into urban design has become essential to adequately address contemporary urban challenges. These challenges include climate change, resource availability, environmental degradation, and energy consumption. Additionally, phenomena such as urban heat islands (UHI) and air pollution present significant issues regarding comfort and health in urban contexts (Gaitani et al., 2014 cited by Chetara, 2023).

---

Corresponding Author: \* D. Djaghrouri

Department of architecture, Faculty science and technology, University of Biskra, Algeria

e-mail: djamilia.djaghrouri@univ-biskra.dz

### How to Cite This Chapter:

Djaghrouri, D., Chetara, A., Boudjellal, L., & Benabbas, M. (2024). Evaluation of Sustainable Development Concepts in the city of Biskra. Nia, H. A., & Rahbarianyazd, R. (Eds.), *Innovative Approaches to Cultural Heritage and Sustainable Urban Development: Integrating Tradition and Modernity*, (pp. 75-89) Cinius Yayınları. DOI: <https://doi.org/10.38027/N7ICCAUA2024EN0148>

However, effectively implementing sustainable development in urban planning instruments in Algeria remains a major challenge, as fundamental questions revolve around how to integrate environmental and economic concerns into these instruments, as well as addressing social aspects. It is essential to rethink urban planning from a sustainable development perspective, fully integrating the three pillars of sustainable development into urban planning and management.

In conclusion, to build balanced and sustainable cities, it is necessary to rethink urban planning instruments in Algeria, orienting them towards a more integrated and holistic approach that considers the social, economic, and environmental dimensions of urban development. This also requires greater citizen participation and a reevaluation of current practices in urban planning and management.

In this context, the city of Biskra provides an ideal research field to refine our study on urban planning instruments. This arid city has faced various degradation problems and different forms of pollution, both in urban and natural environments.

## **Urban Planning Instruments and the Issue of Urban Sustainability**

In recent decades, the concept of sustainable development has emerged as a new priority in urban and metropolitan management, profoundly influencing approaches and practices in territorial and urban planning. Terms like "sustainable city" and "sustainable urban development" are now commonly used to describe both idealistic aspirations in urban policy and innovative planning initiatives (Gauthier, 2009; Rahman, & Fatemi, 2021).

According to Levi and Lopez (2010), sustainability is a current trend in urban planning that encourages cities, counties, and regions to have a lower environmental impact. Sustainable development involves urban designs that reduce energy consumption, resource use, and pollution. Concepts of sustainable design include compactness and density, mixed land use, social and housing diversity, sustainable transportation, passive solar design, and the integration of nature into the urban environment.

Like many developing countries, Algeria faces complex challenges related to rapid urbanization, resource management, and urban quality of life. Over the decades, the country has implemented various urban planning instruments such as the Master Plan for Development and Urban Planning (PDAU) and the Land Use Plan (POS) to guide territorial and urban development.

### **Definition of the Main Urban Planning Instruments: PDAU and POS**

In today's Algerian legal environment, urban planning instruments are comprised of the Master Plan for Development and Urban Planning (PDAU) and the Land Use Plan (POS) (Yamani & Trache, 2020; Ouzir & Khalfallah, 2016). These instruments are binding on third parties, as defined by Law No. 90-29 of December 1, 1990, on urban planning and development, and Decrees No. 91-177 and No. 91-178 of May 28, 1991.

#### **The PDAU**

Instituted by Law 90/29 related to urban planning and development, the PDAU is a spatial planning and urban management instrument that sets the fundamental orientations for land use planning in the concerned municipality or municipalities. This instrument is essential for the development of local communities and plays an important role in the rationalization of land use to meet present and future needs (sustainable development). According to Azouzi and Harkat (2019), its main objective is to divide the studied territory into four regulated sectors: urbanized sectors, sectors to be urbanized, future urbanization sectors, and non-urbanizable sectors (Art. 19 of Law 90-29).

#### **The POS**

The POS is an urban management and detailed planning instrument that does not affect land ownership. The POS must respect the provisions of the PDAU and can only interpret them within the limits set by the PDAU. According to Chachour (2022), the Land Use Plan (POS) is a central element of the urban regulation system, constituting a technical-legal document that supports and guides urban dynamics. This document, comparable to a legislative charter for sharing city rights among citizens, contains conventional and coherent urban planning instructions. Considered a preferred planning and urban management tool by public actors, the POS primarily relies on a classical programming mode: housing, commerce, public facilities, offices, etc. However, it is important to note that the POS in Algeria scarcely integrates the "Theoretical Grid of Equipment." Consequently, its planning often refers to functionalist zoning. This approach limits the scope of participatory intervention by residents, with effective decision-making resting with political representatives and local elected officials.

However, these instruments have often shown their limits in the face of contemporary challenges, such as pressure on natural resources, pollution, and environmental degradation.

In this context, the concept of urban sustainability emerges as an essential framework for rethinking these urban planning instruments. Urban sustainability aims to create cities that are not only ecologically viable but also socially inclusive and economically dynamic. This involves integrating environmental principles into urban planning, promoting more sustainable urban lifestyles, and reducing the ecological footprint of urban areas.

Today, it is crucial to highlight the need to adapt these instruments to address current challenges while ensuring balanced and sustainable urban development for future generations.

To address these shortcomings, we focused on the case study of the city of Biskra, an attractive city facing several issues of urbanization, environmental degradation, and various forms of pollution.

## Material and Methods

To provide answers, our methodological approach is based on investigative research consisting of a diverse corpus of data through an urban analysis of the case study.

In this study, we focus on the urban analysis of the city of Biskra, one of the cities in southern Algeria that has experienced remarkable urban acceleration since the 1970s, similar to other Algerian cities. Through this analysis, we aim to detect the urban shortcomings that our study area suffers from.

The current study primarily relies on the application of the SWOT matrix method (Strengths, Weaknesses, Opportunities, Threats), also known as the FFOM matrix (Forces, Faiblesses, Opportunités, Menaces) in French. This strategic approach provides a systematic analysis of the internal and external factors influencing the current and future situation of the studied entity, in this case, the site in question (Ballester, 2022). According to Brahim and Khelil (2016), the SWOT analysis was first introduced in the 1950s by George Albert Smith and Roland Christensen from Harvard Business School. Its most significant success was achieved when the analysis was applied by Jack Welch at General Electric in the 1980s to study its strategies, increase productivity, and improve organization.

The SWOT matrix acronym stands for two internal and external dimensions:

### Internal Dimensions:

**Strengths:** Strengths represent the internal assets of the studied area. These are the positive aspects and competitive advantages it has compared to its environment. This may include solid infrastructure, a skilled workforce, a strong natural resource base, or a good reputation.

**Weaknesses:** Weaknesses refer to the internal limitations of the studied area. These are the negative aspects that could hinder its performance or development. This may include a lack of infrastructure, limited resources, gaps in workforce skills, or management problems.

### External Dimensions:

**Opportunities:** Opportunities refer to positive external factors that could benefit the studied area. These are market trends, technological developments, regulatory changes, or potential collaborations that could be leveraged to foster growth and development.

**Threats:** Threats represent external factors that could jeopardize the situation of the studied area. These may include increased competition, economic fluctuations, environmental changes, regulatory risks, or unfavorable technological developments.



Figure 1. The SWOT matrix

By thoroughly analyzing these four dimensions based on the data collected during the study of the city, it is possible to create a comprehensive overview of the current and future situation of the area under study. This SWOT/FFOM analysis will, thus, allow for the formulation of relevant strategic recommendations to maximize strengths, mitigate weaknesses, exploit opportunities, and address threats, in order to optimize the development potential of the city in question.

## Case Study Presentation

Biskra, the capital of the Zibans Mountains and the chief town of the wilaya, is located in the east of the country, on the southern edge of the Aurès Mountains. Known as the gateway to the desert, it is an integral part of southern Algeria, situated at an altitude of 87 meters, making it one of the lowest cities in Algeria, approximately 470 km southeast of Algiers. The wilaya of Biskra covers an area of 21,671 km<sup>2</sup>, with a latitude of 34° 48' and a longitude of over 5° 44'.

The city's location is in the form of a basin, bordered by mountainous terrain, notably the Saharan Atlas to the north and the Zab range to the west. It is traversed by two wadis: Wadi Biskra to the east and Wadi Z'mor to the west. Biskra is bounded to the north by the commune of Branis, to the northeast by the commune of El Outaya, to the east by the commune of Chetma, to the southeast by the commune of Sidi Okba, to the south by the commune of Oumeche, and to the west by the commune of El Hadjeb.

The region's climate is Saharan, characterized by low precipitation, high temperatures, low humidity, and excessive solar radiation.

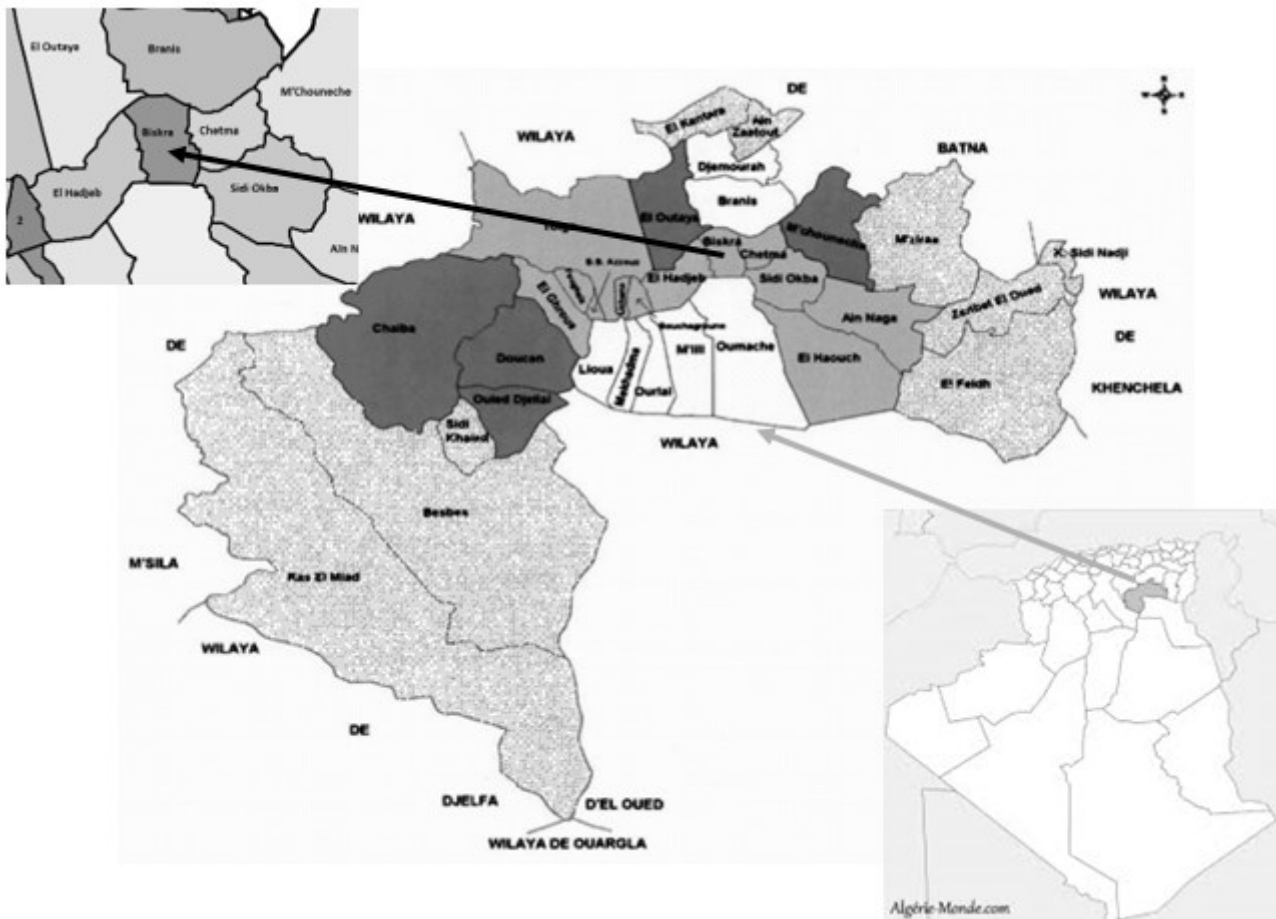


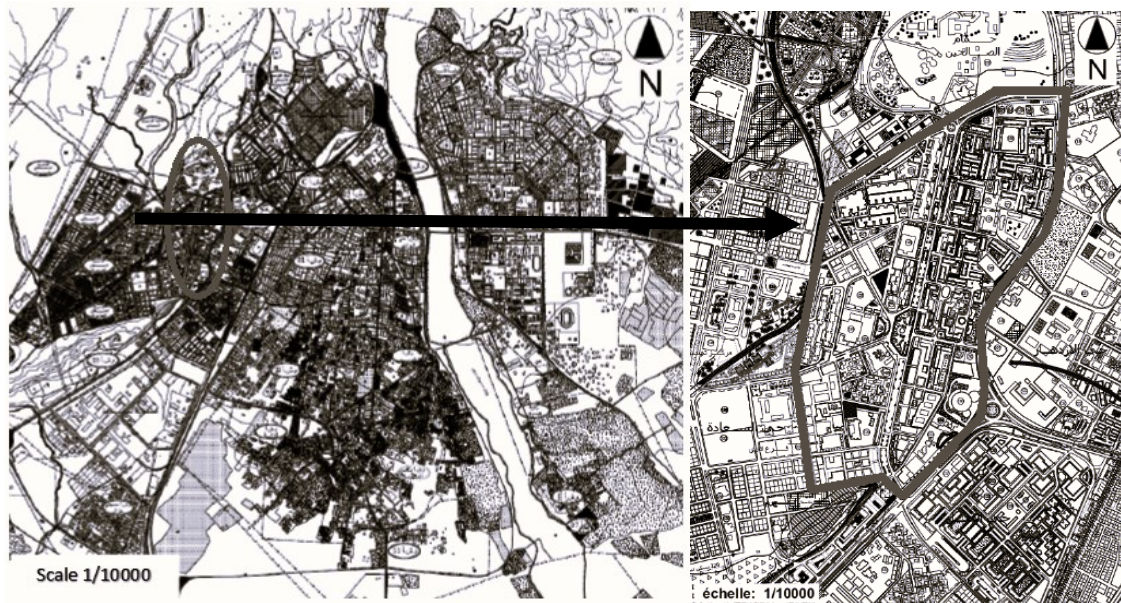
Figure 2. The geographical location of the city of Biskra

## The Choice of the Study Area

By using the zoning map (Plan occupation des Sols - POS) of the city of Biskra, which includes 54 POS according to the division established in 2016, we can explore the various urban components of the city. These POS represent different urban entities, allowing us to select the appropriate intervention site.

We have chosen the western extension zone due to its strategic importance for several reasons:

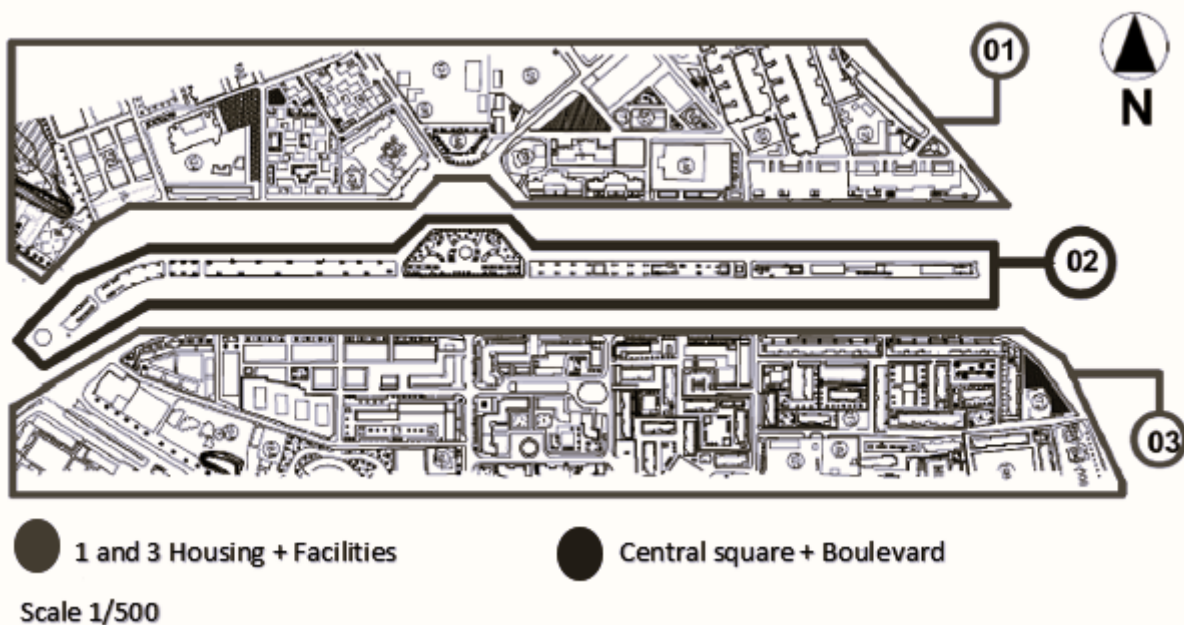
It represents a key administrative area of the city of Biskra.  
 This zone has always been closely connected to the city center in terms of accessibility and services.  
 It constitutes a major issue for the planning of the city of Biskra.  
 The study area is equipped with a boulevard and a central square, whose surroundings play a crucial role in commercial activity and traffic.  
 Its openness offers development opportunities for leisure activities.  
 The impact of this zone extends beyond the city and even the region thanks to its structuring facility, El-Salihine Bath (Hammam El-Salihine).  
 The study area is located in the Zone of New Urban Habitat (ZHUN) to the west of Biskra, positioned between the two intersections of Hammam El-Salihine and the road leading to Tolga. It is situated northwest of the city centre of Biskra, covering a total area of 23 hectares.



**Figure 3.** The different Land Use Plans (POS) of Biskra in 2016 + The studied POS presenting the western expansion zone

### Analysis of the study area

The study area exhibits a morphology divided into three distinct parts, as illustrated in the figure 3 below.



**Figure 4.** Various parts of the site

## Analysis of the built fabric

### Housing

In the western region, building regulations define uniform dimensions divided into three categories. Buildings for individual residential use are generally limited to R+2 in height, while collective buildings can reach up to R+5.

Following the on-site inspection, a set of significant observations was recorded:

The first observation highlights a glaring disparity between urban structures, characterized by haphazard development devoid of homogeneity.

Next, a deterioration in urban quality is noted, largely attributable to modifications made by residents to balconies, thereby compromising the aesthetics and functionality of residential spaces.

The widespread presence of corrosion and rust on doors underscores a major problem of degradation of building entrances, resulting in consequences for the security and overall appearance of these structures.

Furthermore, a noticeable degradation of the main sidewalk leading to building entrances has been observed, highlighting an urgent need for repairs and maintenance of urban infrastructure.

The widespread use of construction materials such as reinforced concrete, stone, and brick, with their ability to store heat, exacerbates thermal comfort conditions in this urban environment.

Limited diversity in architectural facades, in terms of shape, color, and height, is also observed, which detracts from the aesthetics and visual richness of the study area.

Furthermore, monotonous urban facades and their deterioration accentuate the feeling of abandonment and contribute to the general deterioration of the built environment.

Finally, building basements are in an alarming state, generating unpleasant odors and promoting the spread of insects and mosquitoes, underscoring an urgent need for intervention to improve sanitary and environmental conditions.

These findings converge toward an urgent need for targeted interventions to rehabilitate and improve the overall condition of the urban environment and its infrastructure.



Figure 5. Building condition

### Facilities

The study highlights several distinctive aspects of the study area:

On one hand, the area is characterized by a significant concentration of essential service facilities, meeting the diverse needs of the city in various sectors. This reality attests to the considerable flow of daily movements from the city to the area in question. However, it also highlights a notable gap in terms of appropriate facilities, particularly in the socio-educational, recreational, sports, and religious domains.

On the other hand, economic activities are mainly concentrated at the ground floor level of residential buildings, where a marked commercial and service dynamic is observed.



**Figure 6.** The concentration of commercial activities on the ground floor

### **Analysis of the unbuilt fabric**

The examination of the non-built fabric encompasses various elements that contribute to the functionality and aesthetics of the urban environment. This non-built fabric mainly consists of the road system, parking areas, public spaces, children's playgrounds, and urban furniture.

Firstly, the road system forms the backbone of mobility within the urban fabric. It comprises a network of streets, avenues, and pedestrian pathways that facilitate the movement of vehicles and pedestrians, thus ensuring connectivity between different neighbourhoods and areas of the city.

Parking lots, essential elements of the non-built fabric, provide dedicated spaces for vehicle parking, thereby helping to reduce traffic congestion and ensuring easy access to shops, offices, and public facilities.

Public spaces, such as squares, parks, and promenades, serve as meeting and relaxation areas for residents and visitors. They promote social, cultural, and recreational activities, thus strengthening social ties within the community.

Children's playgrounds are specially designed areas to provide children with a safe and stimulating space where they can play, develop their motor skills, and interact with other children of their age.

Finally, urban furniture, including benches, lampposts, trash bins, bus shelters, among others, adds to the functionality and aesthetic character of the urban space. These elements provide comfort to residents and visitors while contributing to the beautification of the environment.

### **The road network**

The primary road network of the study area is represented by the dual carriageway of Boulevard Muhammad Al Siddiq bin Yahya, serving as a link between the northern and southern parts, as well as between the eastern and western parts. Overall, it is in good condition; however, a specific section of the northern stretch requires maintenance work. Its characteristics include an estimated width of 7.00 meters and varying peak hours between 4:00 PM and 9:00 PM. Its total length is 3421 meters.

The secondary roads in the region have an average state tarred surface, with a drainage system also in an average state. Although the width of the sidewalks is sufficient for pedestrian traffic, the condition of the lighting is deemed poor, and the surface covering is mainly tiled.

As for the tertiary roads, these roads scattered in residential units serve to collect traffic and direct it towards secondary and primary axes. However, most of them are in a degraded physical condition, as are most of the sidewalks and sewers which are blocked.

Regarding pedestrian paths and cycle lanes, the study area has a pedestrian path along the boulevard, but the sidewalks in the surrounding neighbourhoods are in a degraded state. It is worth noting that no cycle lane is present, forcing cyclists to share the roads with motor vehicles, posing a safety risk.



**Figure 7.** The Sadik Ben Yahia Boulevard

### Parking

Vehicle parking mainly occurs along the main boulevard and at residential levels. This distribution results from a significant deficit of dedicated parking areas in the study area. Due to this glaring lack, drivers are forced to seek available spaces along the main roads and near their place of residence.

The situation where parking is concentrated along the main boulevard may be due to the relative availability of space on this artery, as well as its function as a major link between different parts of the city. Drivers are attracted to the convenience of these locations to park their vehicles, due to their accessibility and increased visibility.

On the other hand, parking near residences is often motivated by the need for proximity. Residents prefer to park their vehicles in close proximity to their homes for reasons of convenience and security.

The lack of dedicated parking areas forces drivers to turn to available spots along the main boulevard and near their place of residence, which can lead to congestion and urban disorder issues. Proper urban planning should take into account this increasing demand for adequate parking spaces to ensure effective traffic management and a better quality of life for residents.



**Figure 8.** Parking of vehicles at habitat level

### Public Spaces

According to our environmental analysis of the study site, it is remarkable that, despite the open design of the neighbourhoods, they lack gathering and relaxation areas. Consequently, there is a lack of opportunities for social and cultural interactions, crucial elements for promoting quality of life and social advancement within the community. Exchange and communication among community members are essential for strengthening social bonds, encouraging cultural diversity, and promoting overall well-being.

This absence of meeting and resting places prompts the population to seek out other locations to fulfil these social needs. For example, road edges and cafes become frequent alternatives where individuals gather to exchange ideas, relax, and interact with their peers. However, these alternative solutions may come with drawbacks such as lack of comfort, noise, and sometimes even safety risks.

Therefore, it becomes imperative for urban planners and local authorities to address this gap in the design and development of neighbourhoods. By integrating spaces dedicated to social and cultural gatherings, such as parks, public squares, community centres, or recreational areas, it is possible to foster a more inclusive, dynamic, and friendly urban environment. These initiatives contribute to strengthening the social fabric, encouraging community cohesion, and enhancing residents' quality of life.





**Figure 9.** Open space in the study site

Although the study site has a central square, it does not exhibit typical characteristics of public spaces, despite a previous redevelopment. Citizens mainly use this space as a means to cross from one road to another, and elderly people are also observed gathering there to sit around a fountain that is in a degraded state.

Despite attempts at renovation, this central square seems not to have been designed to meet the community's needs as a public space. Its primary use as a passage between roads indicates a lack of attractiveness or adequate design to make it a meeting or resting place for residents.

The presence of elderly people sitting around the fountain, despite its poor condition, demonstrates a desire for socialization and relaxation in this space, but it is evident that the current infrastructure and amenities do not fully meet these needs.

Therefore, it is necessary to reconsider the design and layout of this central square to transform it into a true welcoming public space, offering relaxation areas, appropriate amenities, and an attractive environment to encourage social and cultural interactions within the community.

### Green Spaces

The study area features predominantly bare soil, with a notable decrease in the presence of trees, some of which are even fenced off, indicating illegal appropriation of private property. Furthermore, existing green spaces are largely degraded.

A striking feature is the absence of developed public green spaces in the neighbourhoods, despite the presence of unused open areas. This gap contributes to ecological discontinuity in the region, compromising overall environmental quality.

Moreover, plant diversity is insufficient, with a predominance of palm trees in the area. This plant monoculture limits biodiversity and reduces the ecological benefits that a more varied plant species could provide.

The lack of development of public green spaces, the presence of illegal land appropriation, and lower plant diversity underscore an urgent need for environmental planning and interventions aimed at restoring and promoting biodiversity, as well as preserving green spaces in the study area.



**Figure 10.** The lack of green spaces

### Playgrounds

It is regrettable to note the complete absence of designated spaces for recreational or entertainment activities for children within the residential areas of the study zone. Furthermore, the only playground available in this area is in a catastrophic state, failing to meet any of the fundamental principles of a safe and child-friendly play area.

This situation highlights a glaring lack of attraction and leisure spaces in the study region. The few existing public squares are themselves poorly maintained and not designed to fulfil their role as places for gathering and social interaction within the community.

The absence of dedicated spaces for entertainment and socialization for children, along with the degradation of existing playgrounds, compromises the healthy and fulfilling development of the younger generations. Moreover, the lack of recreational and attraction spaces contributes to a general sense of idleness and isolation within the local population.

To address this situation, it is imperative for local authorities to invest in the creation and renovation of recreational and leisure spaces, paying special attention to the safety, accessibility, and aesthetic appeal of these areas. By providing places conducive to socialization, play, and relaxation, it is possible to foster a stronger sense of community belonging and promote the overall well-being of residents.



**Figure 11.** The state of the playgrounds

### Urban Furniture

The studied area suffers from a lack of comfortable and well-maintained resting spaces, such as benches and pergolas. Additionally, the lighting is insufficient both in housing areas and on the streets.

This situation compromises the comfort and safety of residents, as well as the overall attractiveness of the urban environment. The absence of appropriate resting spaces limits opportunities for outdoor relaxation and socialization, while poor lighting affects visibility and safety in public spaces, increasing the risk of incidents and feelings of insecurity among residents.

To improve the quality of life in the studied area, it is essential to invest in the creation of new resting spaces and in the improvement of lighting in housing areas and streets. By providing a suitable and secure infrastructure, it is possible to create a more welcoming, friendly, and conducive urban environment for the well-being of residents.



**Figure 12.** The state of the street furniture

### Waste Management

The environmental situation in the studied area presents major challenges regarding waste management and energy choices. Firstly, there is an uncontrolled spread of waste throughout the site, reflecting ineffective and disorganized management of these refuse. This problem is exacerbated by the glaring lack of collection containers and designated areas for regular waste collection, leading to uncontrolled waste accumulation in the environment.

Furthermore, the waste collection process is carried out manually by the municipality, indicating inefficient and outdated waste management. Private sector involvement in waste management is also insufficient, underscoring the need for increased engagement of private actors to find sustainable solutions to this issue.

In parallel, energy choices in the region are concerning. The continued use of fossil fuels as the main energy source reflects a lack of willingness to adopt more environmentally friendly solutions. Moreover, the absence of renewable energy use, such as solar or wind energy, shows a delay in adopting more sustainable technologies.

Finally, high electricity consumption, especially during the summer months, highlights the need to optimize energy consumption and promote eco-responsible practices.

Overall, these findings underscore the urgent need for concerted action and effective measures to improve waste management and promote a transition to more sustainable and environmentally friendly energy sources.



**Figure 13.** Poor waste management and its impacts

## Discussion and Conclusion

### The results of the **SWOT Matrix**

Following a comprehensive analysis of the area, a SWOT matrix was developed to assess the strengths, weaknesses, opportunities, and threats associated with the study area (Table 1).

**Table 1:** The SWOT Matrix (Developed by Author)

#### **STRENGTHS**

The strategic positioning of the study area is characterized by several essential aspects that make it a significant place of interest:

1. **Good Accessibility to the Site:** The area benefits from favorable accessibility, thereby facilitating movement and exchanges. Its connectivity with local and regional transportation networks contributes to attracting a steady flow of visitors and residents, thus promoting the economic and social development of the region.
2. **Tourism Potential:** The presence of natural, cultural, or historical attractions in the area gives it strong tourism potential. Preserved natural sites, historical monuments, cultural events, or special occasions can serve as major points of attraction for visitors, thereby stimulating local tourism activity and generating significant economic benefits.

#### **WEAKNESSES**

The study area faces several issues that impact its attractiveness and development:

1. **Lack of Green Spaces and Leisure Areas:** The absence of well-maintained green spaces and adequate leisure areas limits outdoor recreation opportunities for residents and visitors, affecting their well-being and quality of life..
2. **Neglected Tourism Value:** Neglect of potential tourist sites leads to a depreciation of their value and appeal, thereby reducing economic development opportunities related to tourism in the region.
3. **Lack of Parking Areas:** Insufficient parking infrastructure creates congestion and traffic issues, potentially discouraging visitors and limiting access to local businesses and attractions.
4. **Deterioration of Buildings and Lack of Maintenance:** The deterioration of buildings and lack of maintenance contribute to a generally neglected appearance of the area, which can negatively impact the image of the zone

- **Diversity of Public Facilities:** The region boasts a wide range of public facilities, providing a variety of services and amenities accessible to the local population. This diversity helps meet the diverse needs of residents, thereby enhancing their quality of life and well-being.
- **Strong Presence of Youth:** The community is characterized by a significant proportion of young people, bringing a dynamic and creative energy to the region. This active presence of youth fosters the emergence of innovative initiatives and stimulates social and cultural development within the community.
- **Multitude of Meeting Points:** The region offers numerous meeting and gathering places, promoting social interactions and strengthening community ties. These meeting points play a vital role in creating a sense of belonging and solidarity among the population.
- **Presence of Commercial Activity:** The area is bustling with dynamic commercial activity, providing residents with easy access to a variety of goods and services. This economic vitality helps stimulate the local economy and create employment opportunities for residents.
- **Good Reputation of the Site:** The region enjoys a positive reputation, attracting the attention of visitors and potential investors. This good reputation enhances the attractiveness and prestige of the area, thereby fostering its economic and social development.
- **Significant Natural Potential:** The area possesses significant natural potential, offering opportunities for sustainable development and environmental conservation
- **Redevelopment of the Central Square:** The revitalization of the central square is underway, aiming to transform it into a vibrant community space that meets the needs of residents and enhances the overall urban environment.
- **Availability of Spaces for Green Areas Creation:** There is ample space available for the creation of green areas, providing opportunities to enhance the ecological balance of the region and improve the quality of life for residents.

#### OPPORTUNITIES

- Strategic positioning.
- The redevelopment project targets the boulevard.

and reduce its appeal to investors and residents.

- **Incompatibility of Activities:** The coexistence of conflicting activities hinders the smoothness and efficiency of operations in the region, compromising the harmonious functioning of the local community.
- **Lack of Socio-economic Facilities:** The absence of adequate socio-economic infrastructure limits opportunities for development and progress for residents, thereby hindering their well-being and growth.
- **Presence of Unregulated Commercial Activity:** The disorderly presence of commercial activities undermines urban aesthetics and can lead to security and regulatory issues, thereby affecting the attractiveness and dynamism of the area.
- **Neglect of Female Presence:** The lack of consideration for the presence and needs of women in the region limits their economic, social, and political participation, thereby compromising gender equality and inclusive development.
- **Marginalized Local Population:** The marginalization of certain segments of the local population restricts their access to resources and opportunities, reinforcing socio-economic inequalities and hindering collective progress.
- **Inactive Population:** The high rate of unemployment or inactivity within the population reduces economic and social contributions, negatively impacting the growth and vitality of the local community.
- Pollution (water, air, soil).

#### THREATS

- The existing medium-pressure power line in the area.
- The structured dual carriageway of the studied

- Proximity to major structuring projects.
  - The presence of Hammam El-Salihine at the entrance of the area.
  - Presence of various facilities.
  - Projects planned by the PDAU in the western zone.
    - The project for the redevelopment of the boulevard and the square will result in the emergence of leisure and entertainment activities.
  - Economic activity.
  - Proximity to amenities.
  - Proximity to tourist attractions.
- site.
  - The existing electrical transformers that convert the existing electrical energy into consumable energy.
  - Lack of articulation between non-built spaces and residential areas.
  - Unregulated commercial activity (e.g., Rahma market).
  - risk of pollution

Today, with the continued development, sustainability has become a crucial requirement of our world. Residents are increasingly demanding when it comes to the quality of their habitat. Dysfunctions caused by social, economic, and urban degradation are now quickly identified and vigorously contested. Thus, it is imperative to adopt planning based on the principles of sustainable development, taking into account the specificities of our cities, their history, and the culture of their inhabitants.

Paying attention to the daily experience of residents is the best way to identify problems in a neighborhood and respond to them effectively. This social and technical monitoring helps to avoid drifts such as those observed in our case study, while anticipating the needs of residents for a better urban quality of life.

Field visits have revealed the significant urban importance of the studied area. However, with the integration of sustainable development techniques on this site, we can revitalize this area by mobilizing society's mindset, valuing its natural resources such as sunlight and wind, and applying innovative methods of sustainable development. This approach aims to achieve balanced economic, social, and environmental development.

The results obtained highlight several shortcomings and challenges to address: the absence of in-depth studies and coordination between stakeholders and services, the lack of skills and qualified workforce on the ground, the lack of involvement of civil society and citizens in development projects, and the slowness in preparing urban plans. Moreover, current urban planning instruments do not meet the requirements of sustainable development, as evidenced by the lack of relationship between buildings and their immediate environment, the lack of green structures and biodiversity, inadequate waste management and absence of recycling system, degradation of urban furniture, lack of public transportation, and reliance on polluting energy choices.

In order to address these urban issues in the investigated site, It is crucial to engage and activate the role of citizens through civil society and the formation of associations to inform and raise awareness among citizens about urban issues.

It is imperative to activate field studies and not limit oneself only to theoretical studies. Reducing the time frame for the implementation of plans according to developments is also necessary for more agile and adaptive planning. Integrating the concept of sustainable development into urban planning is essential. This includes the construction of energy-efficient housing and the use of renewable energies such as solar and wind power. It is also important to prioritize soft modes of transportation such as walking, cycling, and public transportation, while encouraging parking cars outside the neighborhood.

Waste management must be optimized by reducing waste quantities through reuse, recycling, and valorization, as well as promoting learning of composting techniques. Continuous improvement of cleanliness and rainwater recovery are also important actions to undertake. Finally, it is necessary to improve green spaces and promote biodiversity in the city to ensure a healthy and balanced environment.

## Acknowledgement

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

## Conflict of Interests

The author declares no conflict of interest.

## References

- AMIN, R., & MUHY AL-DIN, S. (2019). Evaluation of the Sustainable Aspects In Housing Sector To Overcome Housing Stress In Northern Iraq. *Journal of Contemporary Urban Affairs*, 3(1), 67-81. <https://doi.org/10.25034/ijcua.2018.4684>.
- Azzouzi, A. & Harkat, M. (2019). La planification urbaine en Algérie : réformes et blocages. *Droit et Ville*, 88, 275-293. <https://doi.org/10.3917/dv.088.0275>.
- Ballester. P. (2022). Matrice SWOT responsable. AFM. Marketing pour une société responsable, se former au marketing et transformer le marketing, 1, AFM, 10 p.
- Benabbas, M., & Djaghrouri, D. (2017). Outils et notions d'urbanisation en milieu rural. *Revue: Courrier du Savoir*, 23.
- Brahmi, F, Khelil, A. (2016). L'utilisation de l'analyse SWOT en vue de l'élaboration d'un plan de développement stratégique cas de l'université de Guelma.
- Chachour, M. (2022). "Le plan d'occupation des sols en Algérie. Outil de participation des habitants ou mode de domination sociale ? Deux études de cas à Oran", *Vertigo - la revue électronique en sciences de l'environnement*, Volume 22 Numéro 1. <https://doi.org/10.4000/vertigo.34924>.
- Chetara, A. (2023). L'influence de la morphologie urbaine sur les ambiances thermiques extérieures dans les zones semi-arides (Cas de la ville de Batna). Thèse de doctorat, Université de Biskra.
- Dempsey, N., Bramley, G., Power, S., and Brown, C. (2009). The Social Dimension of Sustainable Development: Defining Urban Social Sustainability. *Sustainable Development*, 19(5), 289-300. <https://doi.org/10.1002/sd.417>.
- Gaitani, N, Santamouris, M, Cartalis, C, Pappas, I, Xyrafi, F, Mastrapostoli, E, Karahaliou, P, Efthymiou, Ch. (2014). Microclimatic analysis as a prerequisite for sustainable urbanization: Application for an urban regeneration project for a medium size city in the greater urban agglomeration of Athens, Greece, *Sustainable Cities and Society*, Volume 13, Pages 230-236, ISSN 2210-6707, <https://doi.org/10.1016/j.scs.2014.02.006>.
- Gauthier, M. (2009). "Urbanisme et développement durable", *Environnement Urbain / Urban Environment*, Volume 3.
- Lakhdar Hamina, Y, Abbas, L. (2015). Évolution des instruments de planification spatiale et de gestion urbaine en Algérie.
- Levi, Daniel and Lopez, Armando (2010) "Attitudes Towards Sustainable Cities: Are Sustainable Cities Livable Cities?," *Focus*: Vol.7:Iss.1, Article 12. DOI: <https://doi.org/10.15368/focus.2010v7n1.4>.
- Ouzir, M, Khalfallah, B, (2016). Vers une intégration de l'environnement dans les instruments d'urbanisme. Cas de la ville de Bou-Saada, Algérie, *Cinq continents* 6 (13), PP, 134-152.
- Piéchaud, J.P. (2008). Ville et développement durable. CITEGO.
- Rahman, T., & Fatemi, M. N. (2021). Liveability Dimensions in New Town Developments: An Overview of Senri New Town and Purbachal New Town. *Journal of Contemporary Urban Affairs*, 5(2), 221-233. <https://doi.org/10.25034/ijcua.2021.v5n2-6>.
- RAHMOUN, N. (2013). La planification urbaine à travers les PDAU-POS et la problématique de la croissance et de l'interaction villes/villages en Algérie. Référence empirique à la wilaya de Tizi-Ouzou. Thèse de doctorat. Université Mouloud Mammeri De Tizi-Ouzou.
- Souiah S.A. (2010). « L'habitat des pauvres dans les villes algériennes », p. 89-103, in Bendjelid A. (dir.), *Villes d'Algérie. Formation, vie urbaine et aménagement (Cahiers du CRASC)*.

- Souri, Y. (2022). L'intégration du concept de développement durable dans les instruments d'urbanisme Cas de la ville de Biskra. Mémoire de Master, Université de Biskra.
- THAZIR, I., & ZEHIOUA HECHAM, B. (2020). LE ROLE DES INSTRUMENTS D'URBANISME DANS LA CROISSANCE ET DYNAMIQUE DES TERRITOIRES...ELAN OU FREIN ? CAS DE CONSTANTINE. *Revue des Sciences Humaines & Sociales*, 6(2), 598-614. <https://www.asjp.cerist.dz/en/article/139613>.
- Yamani. L, and Trache. S.M. (2020). « Contournement des instruments d'urbanisme dans l'urbanisation de l'agglomération mostaganémoise (Algérie) », *Cybergeog: European Journal of Geography, Regional and Urban Planning*, document 943. <http://journals.openedition.org/cybergeog/34731> ; DOI : <https://doi.org/10.4000/cybergeog.34731>.