

أعمال الملتقى الجهوي للبحث والابتكار بجهة مراكش أسفي الجغرافية التطبيقية في خدمة التنمية الترابية بجهة مراكش أسفي: التحديات والفرص



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2025

La géographie appliquée au service du développement territorial
dans la région de Marrakech-Safi : défis et opportunités

الجغرافية التطبيقية في خدمة التنمية الترابية بجهة مراكش أسفي:
التحديات والفرص

Actes du Colloque régional de la recherche et de l'innovation de la région Marrakech-Safi: La géographie appliquée au service du développement territorial dans la région de Marrakech-Safi : défis et opportunités



Mélanges en l'honneur du professeur
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Axe 2 :
Développement Territorial,
Gouvernance et Enjeux Socio-
économiques

Governance of mobility between Tamansourt and Marrakech

Gouvernance de la mobilité entre Tamansourt et Marrakech

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Abstract: The population of the city of Marrakech is constantly increasing, positioning the city as the fourth largest in the country and the main demographic center of the Marrakech-Safi region. Given the high population density and the increasing rate of urban expansion in terms of housing, the State has been pursuing a policy of massive housing production since 1990 in order to meet the highest demand for housing. The program of 200,000 housing units was launched in 1995 and the program of new cities was launched in 2004 with the creation of Tamansourt. Today, the new city of Tamansourt houses more than 90,000 inhabitants according to HCP statistics in 2014, with less capacity for socio-economic infrastructure and growing urban construction. This situation motivated Tamansourt residents to frequently travel to and from Marrakech for education, healthcare, work, and other reasons. Residents of Tamansourt and Marrakech face daily travel demands that result in increased traffic congestion, traffic accidents, decreased road safety, road congestion, and lack of transportation options. Despite the efforts of decision-makers to address these issues, no urban displacement strategy has yet made a significant impact. This research aims to analyze the mobility between Tamansourt and Marrakech by diagnosing the current state of transportation and identifying the key challenges impeding effective mobility solutions. We conducted field visits to assess the transportation conditions in detail, holding direct meetings with key decision-makers involved in the governance of mobility between Tamansourt and Marrakech. Additionally, we collected relevant data, including plans, schemas, and statistics. Furthermore, we examined the actions taken or planned by stakeholders to synthesize the mobility governance model and evaluate its impact on the stability of Tamansourt's residents. Even if the decision-makers were able to minimize the pressure of housing in Marrakech and construct a new dynamic city with the fundamental public means, but the delay of completing the main public projects that offer the necessary services, pose Tamansourt in a critical situation. As a result, the city remains heavily dependent on Marrakech for economic opportunities and essential social services. The daily need for mobility and transportation among Tamansourt's residents highlights the poor living conditions, which are directly impacted by the weaknesses in the mobility governance model. Our analysis concludes that the governance of mobility between Tamansourt and Marrakech is marked by fragmented responsibilities among various actors, a lack of clarity regarding roles and decision-making, and financial constraints. These challenges have led to significant delays in completing major projects that could have played a crucial role in enhancing the stability and self-sufficiency of Tamansourt's residents.

Introduction

Creating new towns in Morocco dates back to the second half of the 20th century. However, they gained significant momentum in the early 2000s as part of government-led initiatives and strategic urban planning efforts. These efforts help in decongesting existing urban centers by creating well-designed, self-sufficient communities with modern infrastructure and amenities. The success of new towns in Morocco lies in the efficient mobility infrastructure that connects them to the central cities. This connectivity contributes to having access to employment opportunities, services, and cultural amenities in the urban core while facilitating economic integration and social cohesion.

The integration of transportation networks between new towns and urban centers promotes sustainable urban development, reduce commuting times, and enhances residents' overall quality of life. Through careful planning and investment in transport infrastructure, Morocco aims to create a well-connected and dynamic urban landscape that meets the needs of its growing population while preserving its cultural heritage and natural environment. Mobility between new towns and central cities is typically facilitated by various modes of transportation, including highways, railways, and public transit systems such as buses and trams. In addition, to reduce congestion and environmental impact, there may be initiatives to promote alternative modes of transportation, such as cycling and walking.

Tamansourt was created to provide quality housing and ensure the stability of its residents. However, in reality, it has largely become a dormitory city, where inhabitants spend most of their day working or fulfilling their needs outside Tamansourt, only returning at night to sleep. This raises a critical question: Why does this city feel almost abandoned by its own residents?

During my journey between Marrakech and Tamansourt, I observed the immense pressure on mobility, the constant noise of car alarms, narrow roads, and various transportation modes struggling to go through the same route. The experience was overwhelming and stressful, leading me to other critical questions: What are the underlying causes of congestion on the road between Tamansourt and Marrakech? More importantly, what forces residents to endure this daily struggle just to access essential services and economic opportunities?

There are two main objectives behind the planning of the new city of Tamansourt. Firstly it aims to reduce the demographic pressure, and secondly, it tries to have autonomy in terms of economic or social services. According to Chaline's perspective in *The New Cities in the World*, a new city must meet specific criteria to be recognized as a true "new city." First, its urban organization should align seamlessly with the broader urban planning strategy, maintaining coherence even as economic or other changes occur in the future. Second, a new city should possess a certain level of autonomy by generating its own economic opportunities rather than relying on external urban centers for employment and essential services.

However, based on our initial field observations, Tamansourt appears to be highly dependent on Marrakech for essential services, including employment, economic activities, healthcare, and education. Residents are compelled to commute daily, particularly for work, with many employed in the industrial zone north of Marrakech. Similarly, university students must travel to attend their courses.

The current state of mobility is shaped by multiple factors, primarily the interactions and coordination among various stakeholders working to enhance transportation. Rather than being solely determined by the physical distance between Tamansourt and Marrakech, mobility challenges are largely influenced by governance dynamics and the effectiveness of efforts to improve transportation infrastructure and accessibility.

Within this situation emerges our principal question: What type of mobility governance model can affect the flexibility and safety of transportation between Tamansourt and Marrakech, while enhancing the stability of Tamansourts' residents?

To simplify our principal question, we divide it on two pivotal questions:

1. What actions and regulations are for flexible mobility between Tamansourt and Marrakech?
2. What is the model of mobility governance that can encourage the stability of Tamansourts' inhabitants?

In trying to develop our research and understand the dimension of the main problem, we propose two fundamental hypotheses which are:

Hypothesis 1: Actions and regulations of different actors of mobility affect the flexibility of mobility between Tamansourt and Marrakech.

Hypothesis 2: Mobility's governance and its current models between Tamansourt and Marrakech affect the stability of Tamansourts' inhabitants.

This research aims to explore the concept of new towns, their motivations and objectives, and the challenges they face in their development in Morocco. We also delve into the factors and aspects of mobility to investigate what promotes effective mobility between new towns and central cities.

To develop our research, we will review a rang of documents, theses, reports and scientific articles focused on the concept of the new city in urban planning. This will involve exploring urban motivations, regulatory planning strategies, and examining the mobility dynamics between the new city and the city center. Additionally, we aim to arrange meetings with directly involved key public and private stakeholders in regulating mobility between Tamansourt and Marrakech. These include decision makers in Tamansourt, officials from the Harbile Municipality, the Marrakech-Safi Regional Council, the Marrakech City Council, the Marrakech Prefectural Direction of Equipment and Transport, and the Al Omrane Tamansourt Company. We also intend to consult with a mobility specialist to further expand our research.

Furthermore, we will collect data on traffic accidents and flow, take photos of the study area, check the condition of transportation infrastructure, and gather plans for current and future projects. We will also review development programs for Harbile and Marrakech, as well as the urban plan for Tamansourt, and analyze the area.

The development of our research is based on the data received from conversations with the various stakeholders, insights from mobility specialists, and documents shared either officially or with some reservation. More than that, during our interviews with the stakeholders, we made an effort to analyze their behaviors and incorporate them into our analysis of the governance model of mobility between Tamansourt and Marrakech.

A qualitative approach will be adopted in this research to focus on collecting verbal data for an interpretative analysis. It covers a variety of perspectives, methods, and techniques for data collection and analysis (Aubin-Auger, 2008). In our framework, we will apply network theory to understand the relationships and interactions among different stakeholders. By analyzing these relationships, we aim to deeply understand the mobility governance model between Tamansourt and Marrakech. Our research will evaluate how attentive the stakeholders' awareness of the study's issue, its impact on Tamansourt's population, and its relevance for local development. Additionally, it will explore the actions they plan or have already taken to improve mobility and ensure the stability of Tamansourt's residents.

I.New tow, mobility's governance, orientations of urban sprawl

In the following paragraph, we aim to explore the theoretical context of the concept on new towns, considering different perspectives on urban transformation and their defining criteria. Additionally, we will examine the governance of mobility by analyzing urban planning theories and mobility management strategies. Our goal is to highlight how governance frameworks influence transportation systems in newly developed urban areas, ensuring sustainability, efficiency, and accessibility in modern urban development.

1. New Town a form of urban sprawl in Morocco

New cities have emerged in the global South over the past two decades. For example, almost all of the city projects announced since the late 1990s are located in developing countries such as Morocco, Saudi Arabia, Indonesia, China, and many others. Significantly, the frequency of new city developments has increased since the 2008 global financial crisis. While new cities have in some cases improved the economy and the living conditions of some people, they have also generated a wide range of worrying consequences, including social exclusion and inequalities, spatial fragmentation, threats to democratic processes, and a lack of social cohesion. (Moser, 2020).

In the past two decades, Morocco's urban landscape has rapidly transformed, fueled by strong economic growth and the reign of King Mohammed VI, who ascended to the throne in 1999. Since the 2000s, numerous large urban projects and infrastructure improvements have been launched as part of national development and poverty reduction efforts, along with government plans to enhance spatial planning and development. (Coté-Roy & Moser, 2022).

Defining what constitutes a "new city" is not as straightforward as it may seem, as all cities were once new and have evolved over time. According to Chaline in his work *The New Cities in the World*, a new city must meet certain criteria to earn this label: First, its organization must align perfectly with the overall urban planning, maintaining this harmony even with future economic or other changes. Second, a new city must possess a degree of autonomy, generating economic opportunities for its residents. Additionally, there should be an official body responsible for overseeing its construction and management, although this body is expected to disappear once the city becomes integrated into regular governance. (Dibiany, 2016).

In the introductory report of the General Secretariat of the Moroccan National Council for Housing and Urban Planning of December 14 and 15, 2004, it was announced that the main objectives of the creation of a new city in Morocco are to restructure and strengthen the national and regional urban framework. It aims at a regional and micro-regional balance in terms of decongestion and dynamization, which will reduce the pressure on the centers. The new city, or satellite city, serves as a hub for various activities, offering diversity and ample space that complements the main urban center. It must provide all essential urban functions, support a wide range of activities, and feature diverse housing options that promote social mixing and integration with the surrounding area. (CNHU, 2004).

2. Measuring good governance

In our research, we focus on a specific territory where a diverse relationship forms a territorial ecosystem, with actors playing a the crucial role of territorial development. These actors have control over their territory, shape its identity and establish strong connection with it. They pursue both personal and collective goals, whether these are

explicit or hidden. To achieve their objectives or overcome challenges, actors mobilize all available resources and exert powerful influence on the territory. As a result, a range of actions emerges, driven by the actors' interests, goals, or the challenges they face. In this context, the territory is shaped by the interactions of actors engaged in a coordination process, influenced by both time and space". (Colletis & Rychen, 2004)

To support territorial development and create a strong ecosystem, stakeholders must work together through cooperation, coordination and dialogue. This collaboration approach helps address citizens' needs and expectations. Achieving this requires an effective governance process.

Effective governance is central to both economic and social progress. It guarantees the inclusive participation of all stakeholders in decision-making processes, ensuring transparency and responsiveness to the needs of the population. In addition, adherence to the rule of law is essential to ensure that governance remains accountable and fair. When implemented effectively, good governance helps achieve desired goals, distributes the burdens and benefits of society, protects human rights, and ensures legitimacy. Conversely, poor governance is a major challenge to a country's development.

Governance refers to the responsibility of governments to provide public goods and services whether political, social, economic or environmental to meet citizens' needs. The 2020 Ibrahim Index of African Governance outlines key indicators to assess governance, grouped into categories such as Security & Rule of Law, Participation, Rights & Inclusion, Foundations for Economic Opportunity, and Human Development. Each category consists of several indicators that can be used to evaluate governance in a specific area. This definition and its methodology are particularly relevant because the Ibrahim Index assesses governance levels in African countries, taking into consideration their unique social, political, economic and environmental characteristics. Some of these indicators will be used for comparison in this research.

3. Mobility's governance

Governance itself can be defined in many ways. It can take place at different levels, from local government to village chiefs to the global governance of international institutions and treaties. This definition gives a broader understanding of what governance entails and can be related to mobility in terms of decision-making in terms of people and goods' movement and how this movement is handled.

Mobility governance refers to the policies, regulations and strategies implemented to manage and regulate transportation systems and services. It includes ensuring safe, efficient and sustainable mobility for people and goods. It can include areas such as urban planning, traffic management, public transportation, and infrastructure development. It's an important field that aims to improve transportation systems and needs of a growing population.

The traditional role of the organizing authorities has long been reduced to arbitration between "doing" (management) or "having it done" (public service delegation). Today, a third option seems more favorable to innovation: "Let it go". This does not mean, letting go at any price. To establish a good balance, the public authorities must stimulate, organize the actors' play, and protect the small actors (Rédaction Voyelles, 2019).

In summary, the theoretical exploration of new town and mobility governance highlights their role in shaping sustainable and efficient urban environments.

Understanding these frameworks provides a foundations for analyzing real territorial applications. Building on this, the next section will examine the urban orientations in Marrakech city, and explore how planning strategies and mobility policies influence the city's development trajectory.

II. Urban sprawl in Marrakech: Key directions and strategies

The population of Marrakech has grown significantly over the past decades, increasing from 332,741 in 1971 to 926,573 in 2014—an increase of 593,832 people. This rapid demographic growth has made Marrakech the fourth-largest city in Morocco and the main population center in the Marrakech-Safi region (Commune of Marrakech).

Population distribution across the city's six arrondissements is uneven. According to the 2004 HCP Statistics, the Menara arrondissement has the highest population share, accounting for 44% of the city's total residents. This high population density has driven urban expansion, with the city's built-up area increasing rapidly. Between 1971 and 2014, the urban area expanded ninefold, growing from 2,000 hectares to approximately 23,000 hectares.

To address the rising population density and growing housing demand, the government has implemented a large-scale housing policy since the 1990s to support the city's rapid urban development.

The 200,000 housing unit program was launched in 1995, followed by the new cities program in 2004. This program led to the creation of Tamansourt, which serves as the focus of our study. (Arabe, 2020). The main objective of this public policy is that the program of the new city of Tamansourt can allow the largest number of households to access home ownership and de-densify some major cities in the country. Today the new city of Tamansourt houses more than 90.000 inhabitants according to the HCP statistics in 2014, with less capacity for socio-economic infrastructures, and growing urban building. As a result, residents of Tamansourt frequently travel between Marrakech and Tamansourt for reasons such as education, healthcare, work, and other needs. This daily movement has increased the demand for mobility and transportation.

Building on the definition established in our research and considering the specific context of the relationship between Tamansourt and Marrakech, Tamansourt was conceived as a response to the unregulated urban expansion of Marrakech, to improve urban management. While it meets certain criteria of a “new town”, as outlined in the theoretical framework, it does not fully align with this concept. Therefore, within the scope of our definition, this study examines the spatial development of Tamansourt to assess whether it has met residents' expectations and whether decision-makers have successfully established a functional model of new town.

In the next section, we will examine the characteristics of the new city, focusing on its spatial connection with the center of Marrakech. We will explore the motivations behind the daily movement between Tamansourt and Marrakech, and analyze the role of local governance by territorial actors in shaping the types of mobility between the two cities.

III. Type of Mobility Between Tamansourt and Marrakech

The passenger of Tamansourt travel to the Jouamiaa station, which is the most accessible transit point in the area, particularly for residents of the AlAtlas district where the station is located. From Jaouamiaa, they have two public transportation options: big

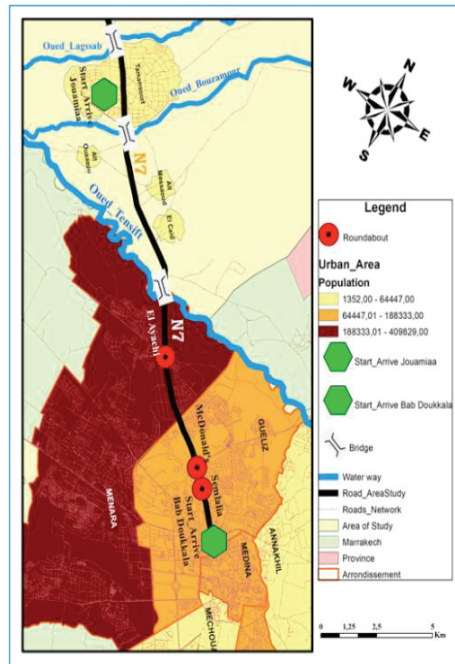
taxi or buses. The bus services include two lines, L44, and L441, whose final station is at Bab Doukkala in Marrakech. Under normal traffic conditions. The journey between Tamansourt and Marrakech takes approximately 15 minutes.

1. Spatial connection

Tamansourt is related to Marrakech by the national way N7, which is the only road that provides the service of mobility of people to Marrakech or another area. This road connects different territories at the regional and national levels, the city of Tamansourt with the city of Safi and Eljadida from the north, the city of Casablanca from the northeast, the city of Agadir from the southwest, and Elkalaa des Sraghna from the southwest.

At the local level, this road is affected by different traffic flows from different arrondissements of Marrakech. Furthermore, we have 4 main arrondissements that seriously affect the flexibility and access between Tamansourt and Marrakech, which are: The Arrondissement of Gueliz, the arrondissement of Menara, the arrondissement of Medina and the arrondissement of Sidi Youssef Ben Ali: in the next map we expose the current situation of traffic flows that affect mobility between Tamansourt and Marrakech:

Carte 1: The map exposes the spatial connection between the main road and the different urban areas from Tamansourt To Marrakech



Source: personal work: l.elhoucine, 29-04-2024

The National Road N7, which connects Jouamias station in Tamansourt to Bab Doukkala station in Marrakech, passes through and directly links various urban areas. It connects different districts within Marrakech, several Douars along the route between Tamansourt and Marrakech, and the urban area of the new city of Tamansourt.

The map showing the population distribution in the urban zone highlights various areas, starting with Menara, which includes M'hamid, Saada, Maatala, Massira, Targa, the Sidi Ghanem industrial zone, Almassar, and El Azzouzia, where the population is the densest. Following Menara, Gueliz and Medina have a smaller population. Finally, Annakhil and Mechouar Kasbah have the lowest population compared to the other districts. On the other side, in the northern part, there are three main Douars known for their high population but are classified in our analysis as low-population zones, similar to Annakhil and Mechouar Kasbah. These are Douar El Caid, which has the highest population among them, followed by Douar Ait Messaoud, and finally Douar Ait Ouazou. Additionally, the new city of Tamansourt is also categorized as having a lower population compared to other urban areas in Marrakech.

The N7 is the only and the main way that it relates to all these areas, it is the main way that connects the different district ways which provides mobility to other areas. The populations of various urban zones, including Marrakech, the Douars, and Tamansourt, are required to travel via the N7. As a result, there is daily congestion on this road due to the different means of transportation used by these residents.

2. Means of transportation

This road is used by various modes of transportation, including public transport such as buses, big taxis, and mini taxis, as well as private vehicles like cars, trucks, motorcycles, and bicycles.

According to the Wilaya of the Marrakech Region, the public transportation service operating along the Tamansourt-Marrakech route includes:

Table 3: Means of public transportation in the line of Marrakech Tamansourt

Public means of transportation	Number
Drive license of Taxi, for the first type (A)	35
Van	06
Bus(Alsa)	12
Public transport bus for passengers – Marrakech and The Center 44	01

Source: Wilaya of Marrakech Region, the service of Transport

For more details about the bus, we have the:

Table 4:Canvas of Buses between Tamansourt and Marrakech, January 2024

Number	Length	Number_Bus	Type_Bus	Occupation	Ticket price
LXX	Length of the way to go in Km	Number of buses for this route	Type of Buses on this line	Average number of passengers per line/day	Ticket price in DH
44	41,8	4	12m	1 696	7,50
441	20,5	10	12m	7 914	6,00

Source: Wilaya of Marrakech Region, the information department

Tamansourt is divided into two districts, the Alfath district, located east of National Road N7, and AlAtlas district, situated west of N7. Bus line 441 operates in two routes: Line 441(A) serves the AlAtlas district, connecting it to other areas, while Line 441(B) provides transportation for the Alfath district and its surrounding areas.

According to the territorial division of the Community of Marrakech and the Community of Harbile, our study area is divided into two sections : the first section belonging to the Community of Harbile, from Station Jouamiaa to the Tensift Bridge, and the second section belonging to the Community of Marrakech, from the Tensift Bridge to the Bab Doukkala Station. In each section, we will examine the road conditions, traffic lights (both horizontal and vertical), and parking services.

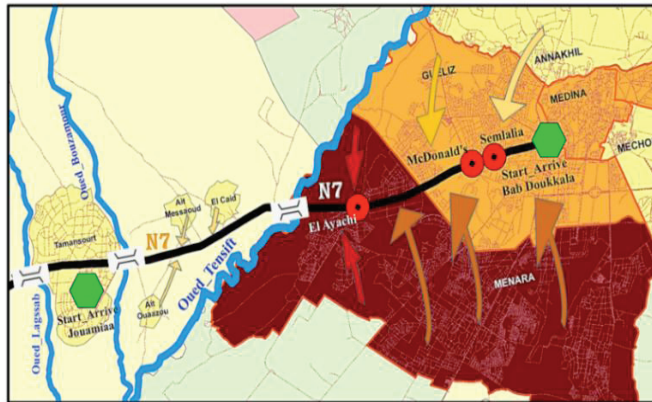
In The first section From Tamansourt, there are two main public transportation hubs: Saada and Jouamiaa. Residents of the new city primarily use Jouamiaa station to travel to Marrakech for daily activities such as education, healthcare, and work. University students commute to Cadi Ayyad University, while others travel to Mohammed VI University Hospital or Ibn Toufail Provincial Hospital for medical services. Additionally, some residents commute in the opposite direction to the Sidi Ghanem industrial zone, which lies on the border between Harbile Municipality and the Municipality of Marrakech. Jouamiaa station experiences high demand for public transportation, as it serves as the main departure point for most Tamansourt, residents using buses or big taxis.

In the second section, upon crossing the Tensift Bridge, the route enters the jurisdictions of the Harbile and Marrakech communities. Within Marrakech, the first major landmark is the El Ayachi roundabout, which experiences the highest traffic congestion. The route then continues through the McDonald's roundabout and the Senglalia roundabout before reaching the final destination at Bab Doukkala station.

3. Road Traffic Situation

Examining the spatial connection between Tamansourt and Marrakech, the primary linking road is the National Road 7. As shown in Figure1, three critical points are experiencing significant traffic pressure, particularly at the El Aayachi roundabout. Daily movements between the inhabitants of Marrakech and Tamansourt contribute to increased probabilities of accidents, congestions, insufficient public transportation, and overall road pressure.

Figure 7:A Map exposing traffic flows and their different flow areas



Source: personal work :l.elhoucine 29-04-2024

The arrows indicate the impact of passenger movement along the main road at each intersection, with the color gradient from light yellow to dark red representing the increasing levels of traffic congestion along the route. According to a transportation

official from the Regional Directorate of Equipment and Transport, the Tamansourt-Marrakech road segment records an annual average of 22,000 cars per day (four-wheel vehicles). This section also has the highest accident rate at the regional level.

This situation pushes us to delve deeper into understanding the relationship between providing a good quality life for the inhabitants of Tamansourt, mobility challenges, local governance, and the roles of decision-makers. Next, we explore and clarify the context of mobility between Tamansourt and Marrakech.

4. Mobility in Tamansourt, what provision for its inhabitants?

According to the definition of a new town in our study, certain criteria must be met, as outlined by Chaline. The city's organization should align with overall planning and remain adaptable to future economic or other changes. However, in our research, the mobility in Tamansourt appears inflexible due to the lack of essential services such as healthcare, education, and job opportunities.

For example, Tamansourt still depends to Marrakech for healthcare services. Although the Harbille Commune launched a project for a local hospital planned for 2014-2018, it was suspended due to financial difficulties, as confirmed by an official from the Department of Economic and Social Affairs.

A new town should also have a degree of economic independence. However, many Tamansourt residents commute daily to the Sidi Ghanem industrial zone in Marrakech for work. Decision-makers had planned an Industrial Pole in Tamansourt between 2014 and 2018, a crucial project to create jobs and attract investment at regional, national, and international levels. Although the project was delayed for a long time, it is now under construction.

Taking into consideration providing the necessary services to the residents of Tamansourt, they are obliged to daily face the unorganized mobility, which puts Tamansourt under pressure and raises the question of whether it is a successful model of new town. Then, at this crucial point, emerges the role of good governance in managing the local affairs in the way of responding resident's needs.

We do not deny the remarkable progress that appears in the organized urban expansion of the city and the wide streets, but the internal management of services and their distribution in the area between Tamansourt and Marrakech does not serve the interests of the citizen and does not respond positively to their expectations.

In the next section, we will explore the current model of mobility governance, its challenges, and the territorial actions aimed at improving the quality of life and stability for Tamansourt's residents. We will also examine proposed solutions to accelerate the provision of essential services, reducing the need for daily commutes to and from Marrakech, and fostering greater autonomy for Tamansourt.

IV. Mobility's governance model between Tamansourt and Marrakech

The current state of mobility is shaped by multiple factors, primarily the interactions and coordination among various stakeholders working to enhance transportation. Rather than being solely determined by the physical distance between Tamansourt and Marrakech, mobility challenges are primarily influenced by governance dynamics and the effectiveness of efforts to improve transportation infrastructure and accessibility. We explore the current mobility governance model, its territorial actions

shaped for flexible and secure mobility, and obstacles that are standing in the way of an effective mobility governance model between Tamansout and Marrakech.

1. Actions of territorial actors for flexible and safe mobility between Tamansout and Marrakech

The territorial actors are aware of the unsatisfactory status of mobility and transportation between Tamansout and Marrakech. Through my in-person meeting with local actors, this situation seems serious and requires many interventions and strong actions. Decision-makers have initiated several major projects, particularly focused on improving road infrastructure.

a) Projects in action

Based on field research, the Regional Development Program (2022 – 2027) documents and meetings with decision-makers, elected officials, and administrative stakeholders involved in our study, an important project has been proposed to develop the road infrastructure including:

Table 5:TABLE OF PROJECTS IN MOBILIZATION TO BE REALIZED

Project	Category	Objectives	Budget (MDH)	Period
Expressway Marrakech Safi	contractual framework between the state, the region, other territory collectivities, and other interveners	- Reduce traffic accidents in the trunk of Marrakech Safi region - Enhance the quality of services for the benefit of road users(reducing times, flexible traffic)	1 280.0	5 Years
Opening and development of unclassified tracks and tracks,	The Region	- opening up the territories of the region - strengthening the network of road transportation - Facilitating regional mobility and reducing the resulting costs	1 600.0	4 Years

Source: Regional Development Program Marrakech – safi from 2022 to 2027

Concerning the local planning, the communal action plan of Marrakech 2023 – 2028 integrated an interesting number of projects such as:

Table 6:table of projects in mobilization to be realized

Project	Strategic objectives	Operational objective	Owner of the project	Budget (MDH)
paring the roads for the means of logistics	Remediation of competence at the level of infrastructure	Creating proximity roads and improving public	Commun Marrakech	14.0
Modernizing public transport in the new			GCTT	900.0

network of Marrakech metropolitan area	for field justice	transport service, and Urban Security		
Strengthening road signaling			Commun Marrakech	24.0
Installing cameras on the streets and creating surveillance centers			Commun Marrakech	18.0

Source: Marrakech Community Action Program from 2023 to 2028

In terms of projects integrated into the Communal Action Plan of Harbille 2022-2027, we have:

Table 7: Projects in mobilization to be realized in terms of the Communal

Project	Category	Budget
Repair of two arches on Oued Tensift	The Ministre of Equipment and Transports	2 050 000.0
Building an art installation on Oued Lagssab	The Ministre of Equipment and Transports	11 260 000.0
Signaling works with light signals at the section of National Road N7	Commune Harbil	2 666 652.0


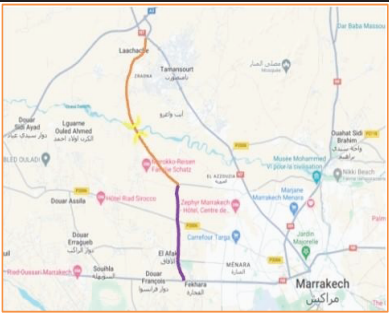


Source: Action Plan of Harbil 2022-2027

Several large territorial projects are planned, with some already under construction and others delayed. These projects have been officially approved for completion by 2027 or 2028.

b) Project under technical study

According to the technical documents from the Regional Direction of Equipment and Transports, they are working on other scenarios of road infrastructure that can reduce traffic congestion in this section of road and raise road safety. So, they have 3 projects under technical study in progress to be confirmed with the Wilaya of Marrakech²⁴:

²⁴ Wilaya of Marrakech: it Represents the Ministry of Interior in the city of Marrakech

<p>Project 1: Improvement of the level of service and security of the trançon of the RN7 connecting the city of Marrakech and the city of Tamansourt:</p>	<p>Project 2: Development of the north-west ring road of the city of Marrakech (RN8 on the Loudaya side-RP2006-RN7 on the Tamansourt side)</p>
	
<p>Source: Regional direction of Equipment and Transport Marrakech Safi</p>	<p>Source: Regional direction of Equipment and Transport Marrakech Safi</p>
<p>Project 3 /First variant: Construction of the northern ring road of the city of Marrakech (RN7 on the Tamansourt side -RN9 on the Casa side):</p>	<p>Project 3 /Second variant: Construction of the northern ring road of the city of Marrakech (RN7 on the Tamansourt side - RN9 on the Casa side):</p>
	
<p>Source: Regional direction of Equipment and Transport Marrakech Safi</p>	<p>Source: Regional direction of Equipment and Transport Marrakech Safi</p>

If these projects are successfully implemented and progress well, they will achieve significant objectives, such as reducing travel time and distance. They will also have a positive impact on traffic accidents and congestion. Additionally:

- Ensure the connectivity between Tamansourt and Marrakech with a high-quality, safe road,
- Improve the service of structuring projects at the Tamansourt level (technological park, industrial zone, logistics area, future university campus),
- Decongest the penetrating network (RN8 and RN7) and the roads of the city of Marrakech from transit traffic,
- Decongest the penetrating network (RN7 and RN9) and the roads of the city of Marrakech from transversal traffic,
- Avoid the obligatory passage of heavy goods vehicles in transit through the Azzouzia district.

However, considering these numerous projects planned, if we take into account the delays in previous projects planned in the 2014-2018 by Harbel Community Program, we can wonder if these projects will see the light on the period predicted or if they too will face difficulties. To try to answer this question, it is necessary to know what kind of current difficulties exist in achieving effective mobility and realizing the projects that would support this effectiveness.

2. the Obstacle of Mobility between Tamansourt and Marrakech

Mobility governance is crucial for the success or failure of any project aimed at ensuring flexibility and improving road safety. Despite significant efforts by decision-makers to construct, develop, and enhance various services and infrastructure to the stability of Tamansourt's residents in their new city, several obstacles persist that hinder the provision of efficient mobility and a high quality of life for Tamansourt's residents:

- a) Foundations for economic opportunity which this category appear in some aspects like:

The mobility situation between Tamansourt and Marrakech is influenced by many factors. First, there are multiple stakeholders involved in the planning and regulation of mobility and transportation, leading to overlapping responsibilities and confusion about who is responsible for what. The area is divided into two sectors, each with its actors and planners, creating a conflict of interest and fragmentation of responsibilities, with each party waiting for the other to take the initiative.

In reality, the project to modernize public transport with the new Marrakech Metropolitan network (BHNS) presents a conflict of interest. A critical question arises: Should the BHNS line share the same roadway as existing traffic, or should it be separated? If the BHNS line shares the narrow roadway with regular traffic, it could worsen traffic congestion.

According to project documents of development programs, decision-makers place more emphasis on technical studies and financing for tourism and industrial projects. While, both are crucial for Marrakech's international image and the industrial zone's role in generating economic income, creating job opportunities, and attracting investment, mobility and transportation are still considered secondary priorities. We believe mobility should be the top priority, as it is the key factor for the success of these large projects. Efficient mobility and transportation are essential for connectivity, improved employee productivity, and creating favorable conditions for investment.

The primary obstacles hindering the progress of many projects in Tamansourt, particularly those related to healthcare and economic infrastructure, are financial. Projects such as the central hospital and the city of professions and competencies face delays either because the project owners have shifted their interests or because the Harbile commune and their partners struggle to secure the necessary funding due to a lack of resources.

- b) Security and rule of law which this category appear in some aspects like:

The Harbile commune is currently unstable because of an issue of corruption, which the president of the Harbile communal council is in the event of an arrest for involvement in a bribery case in exchange for obtaining administrative documents. Because of that Tamansourt has been known delay in the progress of projects, especially concerning the documents that need the confirmation of the president of the communal council, which

their vice refuses to take all the responsibilities. Now, they preparing for a local election campaign to vote for the new president.

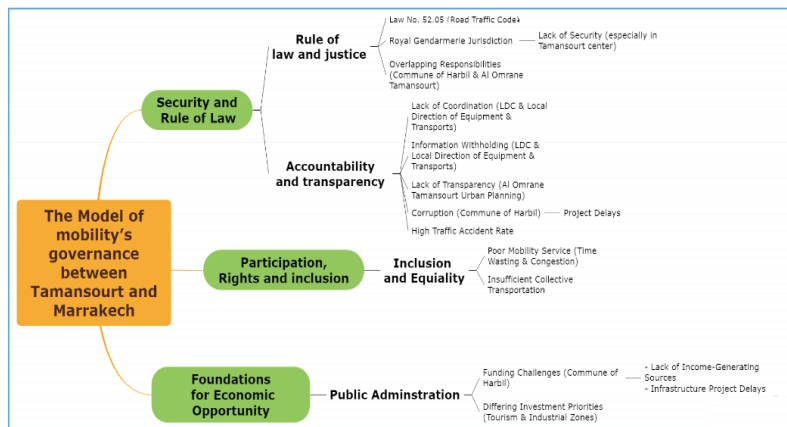
Moreover, during my meetings and direct visits to the area of study and connecting with different responsible, I concluded that there is a kind of reservation of information and an absence of clarity, I had difficulties getting information and statistics about traffic accidents, and details of the urban plan from the group of Al Omrane of Tamansourt. If the information can not be shared easily, I think we can not develop our strategic objectives and provide a developed lifestyle for the residents of Tamansourt.

3. The current model of mobility's governance and stability of Tamansourt's inhabitants

The solution of planning a new city in the North-West of Marrakech was a smart and powerful public action to reduce the density of population from Marrakech. It is an interesting urban development in terms of building a new town and encouraging residents of the old established area to change their old housing with a new house, and creating their new identity and constructing their territory in the new town.

According to the 2020 Ibrahim Index of African Governance, governance is provision of public goods and political, social, economic or enviromental for each citizen, which the government has the responsibility to provide their expectation. This defenition help in analyzing the mobility governance model, considering local affairs managments and the spatial relations between Tamansourt and Marrakech. Specifically, we aim to identify key indicators that help define the governance model in our research (Mo Ibrahim, 2020).

The mobility between Tmanasourt and Marrakech is affected by a specific governance model. In the next schema, we expose the main characteristics of the mobility governance model between Tamansourt and Marrakech classified by category of each dimension of governance that we meet in our results:



Source: persnal work, in 29-04-2024

The peculiarities of the mobility governance model between Tamansourt and Marrakech shed light on the current situation of mobility and transportation between the new town and the center city. Although the primary objective of the new town was initially to provide housing for its inhabitants and to offer them good living conditions and a sustainable environment for establishing their new identity in the territory, the current level of socio-economic services and road infrastructure falls short of achieving these

objectives. While improved mobility aims to address the high demand for social and economic services and opportunities, it appears inadequate to meet these daily needs.

Conclusion and Discussion

The research analyzed the current state of mobility and its governance model, identified barriers to efficient transportation, and examined its impact on the stability of Tamansourt's inhabitants, particularly regarding their ability to maintain a sustainable daily life. Returning to our main research question, this paper aims to explore a new aspect of the spatial connection between Tamansourt and Marrakech, focusing on the often-overlooked topic of mobility. Starting with the concept of the new town or 'La Nouvelle Ville' introduced in the 2004 urban planning program, Tamansourt was seen as a key solution to reduce the high population density in central Marrakech and a vital component of organizing urban planning. In this regard, territorial actors were somewhat successful in encouraging the old population of Marrakech to relocate to Tamansourt, which was a notable achievement. However, as these residents moved, the citizens of Tamansourt encountered significant challenges in living their daily life flexibly, primarily due to the lack of socio-economic services. This gap increased the daily demand for mobility and transportation to and from Marrakech.

The spatial connection between Tamansourt and Marrakech has unique characteristics, starting with geographical obstacles. The N7 road, which links Tamansourt and Marrakech, is supported by three bridges: the Tensift Bridge, the Oued Bouzammour Bridge, and the Oued Lagssab Bridge. While the first two bridges are in a vulnerable condition, the Oued Lagssab bridge is under a progressive construction. Furthermore, this road is a national route connecting Marrakech to other key economic zones, such as Safi, Sidi Bouaathmane, and Kelaa des sraghna, which increases the traffic flow. This multimodal transport corridor (including transit, cars, buses, and motorcycles) leads to high traffic congestion and greater risk of accidents.

Tamansourt is currently considered a dormitory city, with its inhabitants leaving their homes in the morning to commute to Marrakech for work and returning in the evening. This situation is a result of how large projects are managed, with overlapping responsibilities between decision-makers, which is clearly reflected in the local territorial development in Tamansourt. Based on our analysis we confirm the second hypothesis: the current model of mobility governance negatively impacts the stability of Tamansourt's inhabitants. This is similar to the lack of socio-economic services in Tamansourt, which increases the needs for daily movement to Marrakech, highlighting the need for equitable and flexible transportation. These factors contribute significantly to the unstable living conditions of Tamansourt's residents.

Decision-makers have recognized the problem and planned a major project aimed at creating economic opportunities, improving road infrastructure, and enhancing transportation options. They are also working to ensure road safety (through NARSA awareness programs). These actions and regulations offer hope to Tamansourt's residents, particularly regarding improved living conditions and future opportunities, such as the completion of the local hospital, the Tamansourt industrial zone, and the Cadi Ayyad University campus (Tamanpus).

However, based on our discussions with stakeholders, the N7 national road is not sufficient to handle the high traffic flow. There is an urgent need to seriously consider alternative routes and solutions to alleviate pressure, reduce traffic congestion and

prevent accidents. These crucial points highlight the complexity of mobility between Tamansourt and Marrakech and demonstrate how territorial actors' actions and regulations could positively affect the situation, significantly enhancing the flexibility of mobility.

The research has helped us explore various aspects of mobility and its governance model. It has also provided insights into the vision behind Tamansourt's planning. The primary goal was to provide affordable housing for Marrakech's population to alleviate urbanization pressure. However, considering the criteria set by Chaline for a new town, we believe Tamansourt still falls short of meeting these standards. If stakeholders and decision-makers focus on promoting territorial development and fostering a strong ecosystem, it is essential for all actors to collaborate, coordinate, and consult to achieve the criteria for an autonomous city. This would create a harmonious living environment in Tamansourt, which could then be considered a successful new town model.

Finally, Effective mobility solutions require holistic approaches that account diverse stakeholder needs. Integrating multiple transport modes, such as public transit, cycling infrastructure, and emerging technologies like electric and autonomous vehicles, is crucial for building resilient and efficient mobility networks between Tamansourt and Marrakech. Additionally, a balanced approach centralized regulation or decentralized initiatives involving public-private partnerships and strong governance models, can drive innovation, address regulatory challenges, and ensure equitable access to mobility services. Engaging local communities and stakeholders in decision-making processes is essential for creating inclusive and responsive mobility solutions.

Bibliographie

- Al Omrane Marrakech. (2008). Tamansourt.
- Arabe, S. (2020). Tamensourt, une ville nouvelle à la merci des spéculateurs immobiliers. Espace Géographique et Société Marociane, 2.
- Aubin-Auger, I. (2008). Introduction à la recherche.
- Ballout, J.-M. (2021, jun 29). Territorialisation par "villes nouvelles" au Maghreb. Un regard croisé sur les projets d'Ali Mendjeli (Constantine, Algérie) et Tamansourt (Marrakech, Maroc). Montpellier.
- CNHU, S. G. (2004). Rencontre du Secretariat Generale du Conseil National de l'Habitat et de l'Urbanisme - villes nouvelles - Villes satellites-. Maroc: Ministère Délégué Chargé de l'Habita et de l'Urbanisme.
- Colletis, G., & Rychen, F. (2004). Entreprises et territoires : proximités et développement local, in Pecqueur, B., Zimmerman, J.-B. (Eds), Économie de proximités. Hermes Science Publications.
- Commune Harbil. (2022). Plan de developpement communal. Commune Harbil,.
- Commune of Marrakech. (s.d.). Bibliography of the Marrakech community,.
- Coté-Roy, L., & Moser, S. (2022). A kingdom of new cities : Morocco's national villes nouvelles strategy. Science Direct, 3.

- Dibiany, M. (2016). Les villes nouvelles au Maroc : Evolution d'un concept à travers trois générations.
- Harroud, T. (2017). Le programme des villes nouvelles au Maroc : rupture ou prolongement d'un urbanisme de rattrapage ? Revue Internationale d'urbanisme.
- Lewis Paul. (2013). Cities as Artefacts of Mobilities Book review of : Vincent Kaufmann, Rethinking the city Urban dynamics and motility. Open Edition, 1-3.
- Mo Ibrahim, F. (2020). 2020 Ibrahim Index of African Governance.
- Moser, S. (2020). New cities: Engineering Social Exclusions. One Earth Commentary, 1.
- NARSA. (2022). Road safety report, review of 2022.
- Rédaction Voyelles. (2019). La régulation de la mobilité urbaine. La régulation de la mobilité urbaine, (p. 7). Paris.