

Potentials and Challenges of Thermal Tourism in Algeria: A Case Study the Hammamet of Teleghma, Mila Province

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Abstract

Thermal tourism is a type of alternative tourism in Algeria, known for its increasing importance and demand in recent years, as it provides a wide range of supplementary recreational services and activities, as well as contact with nature and cultural heritage, which can create local economic wealth. However, the current situation of thermal tourism in Algeria analysed through a case study of hammamet in the municipality of Teleghma, which is one of the most popular local destinations for thermal tourism in eastern Algeria, is still underdeveloped and unable to stimulate economic and social potentials or improve the use of water resources. This research paper aims to analyse the possibilities and obstacles of thermal tourism in the municipality of Teleghma by studying the gap between the local potentials of thermal tourism and the reasons for the continued underdevelopment of this sector. The research is based on data from the Tourism Directorate and it is supported by field investigations and oral interviews, which makes it possible to verify the role of thermal tourism in the study area. By analysing SWOT points (strengths, weaknesses, opportunities, and threats), the results of the current study indicate a broad attraction of tourists to the hammamet in Teleghma throughout the year. However, those hammamet have many internal and external limitations, such as a lack of competitive advantage for ecotourism, the absence of health and recreational activities, a complete absence of the role of the state in development, property ownership problems for land, and the issue of the sustainability of hot water.

Keywords: *Thermal tourism, municipality of Teleghma baths, SWOT analysis, potentials, obstacles.*

1. INTRODUCTION

One of the most valuable gifts that nature offers to humanity is thermal waters. The most important feature of thermal waters is that they reflect the physicochemical structure and characteristics of the underground environment to the earth [1]. Thermal tourism is a type of tourism that takes place in regions where healing waters contain beneficial minerals and healing mud and vapours that naturally rise above the ground at a specific temperature [2]. The use of geothermal waters in tourism (in therapeutics and recreation) has a long history and several-thousand-year-old tradition. In addition, it is integrated into the development of both material and spiritual heritage of a number of civilisations [3]. The origins of thermal tourism reach back into the times of the following ancient civilisations, Indian (3000-1700 years BC, the Indus Valley), Chinese (1050- 771 years BC, Huaqing), Greek (the 8th century BC), and Roman (the 1st century BC). Their philosophy of life involved strong links with nature [4]. In recent years, the international tourist trend is focused on the alternative forms of tourism seeking different tourist services. Today, more people are

visiting the thermal springs to take advantage of the therapeutic and beneficial properties, enjoying preventive and comprehensive health treatments [5]. Nowadays, in addition to therapeutic virtues, thermal waters provide new interest in humans, and their hydrothermal systems represent a clean energy resource [6]. Furthermore, thermal tourism is considered as an alternative form of tourism, and it enhances regional and local development. It is so important that it can have a strong influence at demographic, social, environmental, economic and marketing level [7]. For lots of developing countries, tourism is considered as a vector of growth. Indeed, it is a powerful lever for innovation, economic, and social change that is likely to drive the entire local and regional economy [8].

Algeria is one of the countries that are rich in heritage. Its diversity and a wealth tell a story full of events, from the civilizations of antiquity to the colonial period, including the Phoenicians, the Romans, the Muslims, and the Ottomans [9]. Since thermalism in Algeria is not a phenomenon of the contemporary era, the use of thermal waters for therapeutic purposes dates back to the dawn of time. The Romans had known how to "domesticate" the waters that sprang from the subsoil, certainly archaic, and they were the first to give us the historical proof of their curative virtues. History tells us that the Romans, by inhabiting the regions of North Africa, had discovered norias of griffins [10]. The Algerian thermal springs are located in the mountains, on the northern border, from east to west, attracting mainly local tourists. The thermal tourism may be an interesting domestic tourism option in Algeria, given its therapeutic virtues that promote real investment and development opportunities, and the abundance of natural sources throughout the country. This tourism type fits perfectly as a sustainable tourism that does not require one season, unlike seaside or Saharan tourism. Therefore, it offers sustainable opportunities. The thermal assessment, carried out in 2015, identifies 282 thermal springs, spread over 38 provinces of the national territory, more than 200 hot springs are listed in the Northern part of the country [11]. And by its importance, thermalism in Algeria is a priority for the development of the economic sector given the existence of a very important thermal potential to be valued, especially in the east of the country, as well as a multiform demand of the population in search of vacation, rest, relaxation, care, fitness, and well-being [12].

Algeria has an abundance of water heritage, which for centuries marks most of its towns and villages [13]. Among them is the province of Mila, the history of Mila dates back to the Neolithic era, and many civilizations have succeeded in it throughout history, giving it many monuments worth exploring. It is also rich in beautiful and diverse landscapes between mountains, plateaus, and plains [14]. One of the distinguishing features of Mila is its various sites and bodies of water, including the large Beni Haroun dam. In addition, there is the potential to utilize 13 natural thermal springs with therapeutic benefits, [15] including the municipal baths of Teleghma, which are one of the most popular tourist areas that attract visitors throughout the week. According to the Mila Tourism Directorate, the number of tourists has exceeded 400,000 per year, although this number does not reflect the reality on the ground. The popularity of the Teleghma hammamet has made the remote rural area a destination for tourists seeking rest and relaxation, despite the modest services provided. This development in quantity has prompted local authorities to consider creating a world-class tourist village and expanding the tourism area, but those promises have not been realized on the ground and the situation of the baths is still the same.

2. MATERIALS AND METHODS

2.1. Location of the study area

The municipality of Teleghma is located in the south of Mila province (eastern Algeria). It was classified as an Algerian municipality in 1958 hence, it is considered as one of the oldest Algerian municipalities. It is bordered to the north by the municipalities of Oued El Athmania and Oued Seguen, to the east and south by the province of Oum El Bouaghi, and to the west by the municipalities of Chelghoum Laid and El Mchira. It covers an area of 194 square kilometers and it is located at (06°55'300 north, 05°21'060 east) (figure 1). The thermal area is located northwest of the city of Teleghma, 2 kilometers from the national road linking the city of Constantine to the capital Algiers (figure2). The appearance of hot springs was noticed in 1986 during the construction of the Grouz dam. All the drilled wells extract their water from the hot carbonate layer, which ranges in depth from 60 to 90 meters [16].

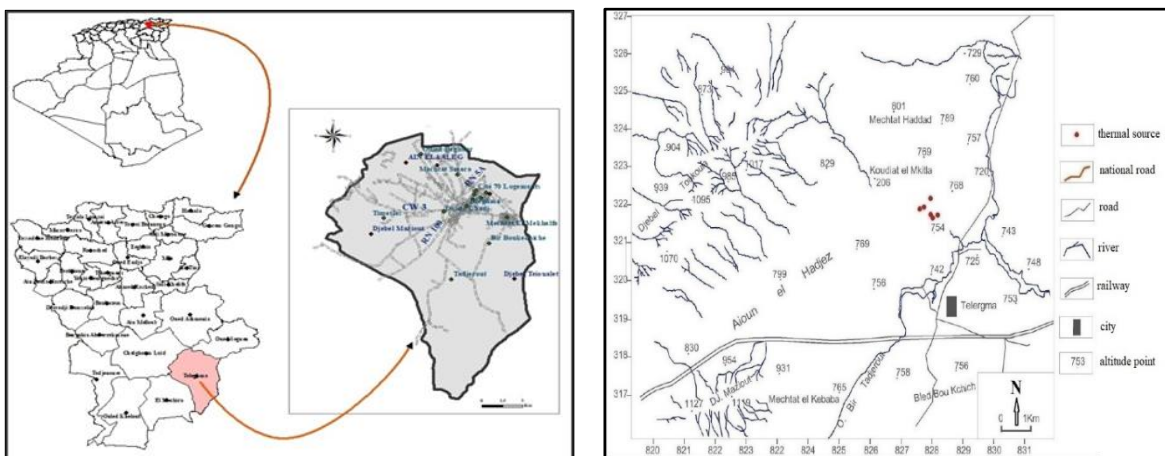


Figure 1. Location of Teleghma municipality in Algeria (Source: Author) **Figure 2. Location of the hammamet Teleghma (Source: [16])**

2.2. Analysis method

In geography, the case study refers to a method of investigation and analysis that consists in studying in details every bit of the characteristics of a problem or a phenomenon in a particular situation. Besides, the case study takes on the meaning of an example that allows showing and making understand the dysfunction of a particular territory [17].

Analysis SWOT is one of the instruments of strategic planning, and since it can include all the dimensions of a matter strategically; it is a good instrument for tourism analyses [18]. SWOT can introduce a perspective of reality to tourism planners and professionals through investigating its internal and external factors and finally attempts to identify the superior advantages of a given tourism region through compilation and evaluation of the existing resources and calculation of the tourism capability of that region. SWOT is one of

the instruments by which managers compare information and can offer four kinds of strategies by using it: SO strategies, WO strategies, ST strategies, and WT strategies [19].

The study of tourism as an academic field is a recent phenomenon. Over the last few decades, this field has experienced rapid changes in research focus and methodology, the majority of articles (59%) used quantitative research designs, the survey being the most frequently reported [20].

We relied on field research and personal interviews in this study. Initially, we conducted a comprehensive survey of the study area, including its location and boundaries, as well as the city, roads leading to the hammamet, visitor traffic, the number of hammamet, and their spatial organization. There are approximately 10 hammams distributed linearly along the base of the mountain, adjacent to the rural road that connects the town of Teleghma and the village of Smara. This distribution made it easy for us to travel and conduct the field visits that we did. This field study targeted two groups, the owners of the hammamet (the investors), and the tourists, in order to evaluate the situation using a SWOT analysis.

The aim of this research paper is to answer some related questions to understand the current situation of hammam tourism in the municipality of Teleghma, which has not been closely examined except for a few studies conducted by the tourism department of Mila province to establish a Tourism Expansion Zone. Therefore, we will attempt to analyse the potential of hammam tourism in the region and the reasons behind the lack of development in this sector. Hence, this research paper addresses the following questions:

- What are the strengths and weaknesses in the tourism potential of hammamet Teleghma?
- What are the obstacles to hammam tourism in the study area?
- How can hammam tourism play a role in local economic development?
- What can be done to enhance the appeal of hammams tourism in Teleghma?

3. RESULTS AND DISCUSSION

To interpret the SWOT matrix, we use the following reading grid [21].

- High Strengths/Opportunities: The odds factors are high=> Take advantage of opportunities by building on your strengths.
- High Forces/ Threats: Challenge factors are high=> Use your strength to make a place for yourself.
- High Weaknesses/ Opportunities: Conflict (decision) factors are high=> Neutralize weaknesses to take advantage of opportunities.
- High Weaknesses/ Threats: Risk factors are high => Circumvent difficulties by revising positions or take measures to reduce weaknesses and neutralize threats.

| Weaknesses | Strengths |
|--|---|
| <ol style="list-style-type: none"> 1. The deterioration of the rural road leading to the baths at a distance of 3.5 km. 2. The lack of public lighting on the roadsides. 3. The absence of a sewage network, as the water from the baths, after its exploitation, goes directly to the valley through | <ol style="list-style-type: none"> 1. It has a wide attraction, as the number of tourists exceeds 8,000 per week. 2. The Hammamet of Teleghma are located in a rural area where, in addition to bathing, tourists benefit from hiking in the countryside and visiting the forest overlooking the baths, |

| | |
|---|--|
| <p>surface paths next to the road.</p> <ol style="list-style-type: none"> 4. Pollution of bath water. 5. The illegal activity of some baths without commercial records. 6. The problem of land ownership (the majority of the ownership is collective ownership). 7. The lack of an accurate study of the source of water and the available quantity. | <p>especially in the spring.</p> <ol style="list-style-type: none"> 3. The cost per person is low compared to other pools. 4. The interior of the baths is wide enough to accommodate a large number of tourists. 5. Treating some skin diseases with hot water. 6. Contribute to reducing unemployment, whether for workers in the hammamet, or the shops adjacent to them along the road. 7. The possibility of developing thermal tourism by establishing a thermal sanatorium, an Olympic complex, and upscale hotels. |
| <p>Threats</p> | <p>Opportunities</p> |
| <ol style="list-style-type: none"> 1. Minimal services that do not meet the demands of some customers, especially the upper class. 2. Absence of hotels, forcing tourists to shower and go home on the same day. 3. Absence of real publicity and promotion of the hammamet. 4. The inability of investors (private or state) to invest in this field due to land ownership problems (family ownership) or the lack of documents. 5. The delay in development projects related to the region, such as the establishment of the tourism expansion area in the commune of Teleghma or the Hamouia village programmed by the Ministry of Tourism. | <ol style="list-style-type: none"> 1. The proximity of Teleghma to the large eastern states such as Constantine, Setif, and Batna. 2. The hammamet are located in the flat plains, which facilitates access to them, as there are no natural barriers, such as mountains and large valleys. 3. Its proximity to the largest airport in eastern Algeria (Constantine International Airport), 40 km, which facilitates the movement of foreign tourists. 4. The popularity and reputation enjoyed by contact baths. 5. Availability of the security factor in the region. |

3.1.Strengths

According to the field study we conducted in 2022, the number of tourists who visited the hammamet municipality complex was estimated to be 331,000. Owners of the baths confirmed to us that this number is low compared to previous years before the Covid-19 pandemic, when the baths were closed for two years in 2020 and 2021. According to their estimates, the number of tourists should not be less than 400,000 per year. According to the data in the table (2), March represents the peak of the number of tourists coming to the baths. Visitors told us that March represents the beginning of spring, where the climate is moderate (with no rain or snow and relatively mild temperatures, especially in the hammamet area), which allows them to travel by public buses or private cars. In addition, the hammamet area is a rural area (with green grass and flowers), so most tourists prefer to have lunch in open spaces in the countryside after resting and relaxing. March also coincides with the two-week spring vacation for children, which allows them to accompany their parents for hiking and relaxation. Among the months in which the number of tourists visiting the baths decreases are July and August, as most citizens prefer to head to coastal areas, in addition to the high temperatures in summer.

Table 2. The evolution of the number of tourists arriving to Teleghma Baths for the year 2022. (Source: Author)

| Month | Number of tourists | Month | Number of tourists |
|----------|--------------------|-----------|--------------------|
| January | 29.000 | July | 23.000 |
| February | 30.000 | August | 23.000 |
| March | 32.000 | September | 25.000 |
| April | 31.000 | October | 27.000 |
| May | 27.000 | November | 28.000 |
| June | 26.000 | December | 30.000 |

According to the owners of the baths, the number of tourists increases in winter and decreases in summer. Regarding the days, Fridays and Saturdays receive the highest number of incoming tourists to the baths, as these two days are holidays in Algeria. The number of tourists can reach between 200 and 300 tourists per bath or more, depending on the weather conditions and the proximity to or distance from the bath area. On the other hand, the prices for bathing have been capped by the owners of the baths as follows: 250 Algerian Dinars for adults aged 15 and above, 100 Algerian Dinars for children under the age of 15, and children under the age of 10 do not have to pay bathing fees. As for tourists' choices, most of them prefer the public baths due to their low price and their ability to accommodate a larger number of tourists, and their water is hotter than that of private baths, which contributes to most tourists' belief in the healing of some skin diseases. The baths also provide pools of various sizes for different ages, which encourages tourists to bring their children for entertainment and bathing specially that young children do not have to pay for bathing . However, the prices for individual rooms have been capped at 300 Dinars per hour in all baths, regardless of the number of users of the rooms. Assuming an average of 5000 tourists per week in March and excluding the cost of bathing for children, the total income for the baths would be 5,000,000 Algerian Dinars, which is equivalent to 250,000 US Dollars. The minimum income that this activity can ensure in July or August, assuming an average of 3000 incoming tourists per week, is 3,000,000 Algerian Dinars, which is equivalent to 150,000 US Dollars. These revenues are significant for the region, which does not have income from other sectors except for agricultural income. The baths also provide job opportunities for the residents of the area, who are divided into two categories: workers directly affiliated with the owners of the baths, who receive a salary for their services, such as security personnel, sellers, and maintenance workers, and independent workers who work in massage and spa services, which are preferred by most tourists.

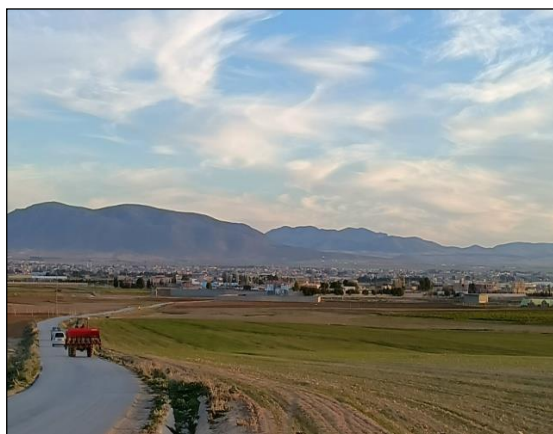


Figure 4. The location of the Hammamet of Teleghma in rural zone (Source: Author)



Figure 5. The largest hammam in the region has a hotel (Source: Author)

3.2.Opportunities

The region of hammamet is distinguished by a suitable geographical location for receiving tourists, as it is located within the flat eastern plains, which provides opportunities for accessibility. Through studying the geographical origin of incoming tourists, indicated by figure (6) and figure (7), tourists come from multiple areas. The majority of them are from within the state of Mila, from neighbouring municipalities such as Chelghoum laid, el Mchira, oued seguen, and oued athmania. As for the remaining municipalities, they are Mila, Tadjnanet, Ouled Khelouf, Ben Yahya Abd al-Rahman, and Ain Melouk. Regarding incoming tourists from other wilayahs, we note in the first place the wilayahs of Constantine and oum El Bouaghi due to their proximity to the municipality of Teleghma and their administrative borders. Constantine is 40 km away from the municipality of Teleghma, while oum El Bouaghi, especially the municipality of Ain M'lila, is 20 km away from Teleghma. In the second place, we find the wilayah of Batna, which is 85 km away from the municipality of Teleghma, and Setif, which is 120 km away. In the third place, we find the wilayahs of Skikda and El Borj. On the other hand, most of the tourists prefer those hot springs because of the availability of security and good reception. The area is rural and far from the chaos of the city, with a good national reputation compared to other thermal tourism areas.

Table 3. The geographical origin of the tourists arriving to the Hammamet of the municipality of Teleghma 2022

| Geographical origin of tourists arriving from within the province | | Geographical origin of tourists arriving from outside the province | |
|---|--------------------------|--|--------------------------|
| Commune | Number of tourists | Province | Number of tourists |
| Oued El Outhmania, Oued Seguen, El Mchira, chelghoum laid | 50-100 tourists per week | Constantine Oum El Bouaghi | 50-100 tourists per week |
| Ouled Khelouf ‘Mila, Aim Melouk | 10-50 tourists per week | Batna, Setif | 10-50 tourists per week |
| Tadjnanet, Ben Yahia | 0-10 tourists per week | Sekikda, El Bordj | 0-10 tourists per week |



Figure 6. Geographical origin of tourists arriving from within the province
(Source: Author)

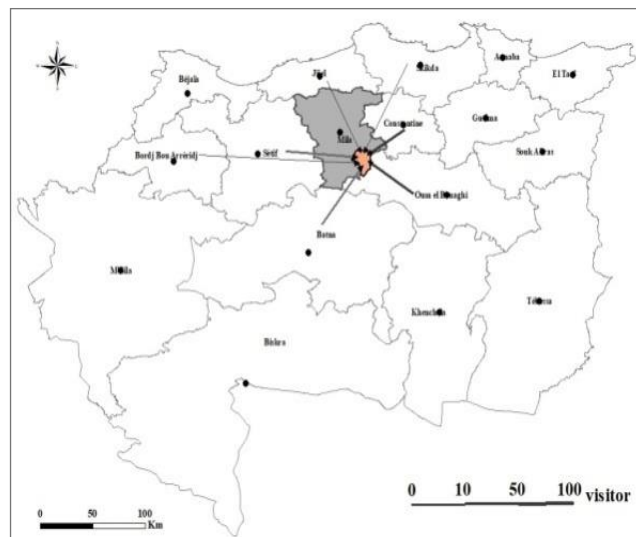


Figure 7. Geographical origin of tourists arriving from outside the province
(Source: Author)

3.3. Weaknesses

The visitors of the hammamet area notices a complete absence of the state through the absence of development projects. The first problem encountered by tourists is the road linking the city of Teleghma and the hammamet, which is a completely dilapidated 3.5 km road unsuitable for vehicles or even pedestrians in winter, resulting in difficulty of mobility, traffic congestion, and wasting time. Furthermore, the complete absence of public lighting at night could lead to some accidents, such as car collisions. Additionally, we noticed, near the road surface, water channels from hammam waste pouring directly into the valley without drainage channels having been built until recently. Moreover, we sensed fear on the part of the owners of the hammamet regarding the lack of a precise study of the water source and the quantity available, even though the area is known for its hot springs. However, in the vicinity of the hammamet area, exploration was carried out in more than one place, and there was no hot water available at all. Among the reasons for the lack of development in the hammamet tourism sector is the collective ownership of most of the land by several families. Legally, this situation does not allow the investor to turn to the state for a loan, nor can the investor own the property in his name. Even those who wish to purchase a piece of land sometimes resort to illegal methods to formulate a property contract. This situation related to land ownership has negatively impacted both the investor and the state, as most of the hammamet operating in this area do not have a commercial register, making them subject to legal follow-up if a problem occurs, such as a person's death, a fight between individuals, or a serious disease spreading in the hammamet. Moreover, this situation makes it difficult to collect taxes that would benefit the state treasury.



Figure 8 and 9. The road leading to the hammamet (Source: Author)



Figure 10. A secondary road leads to the hammamet (Source: Author)

3.4.Threats

Based on the data in the table (4), we notice that some services are available in all the baths, such as parking, public baths, and small shops. This is because the area of the baths is a large rural area, and most of the properties built on it are privately owned by the owners of the baths, who can build on them whatever they want. In addition, the cost of parking does not require building anything except for a wall or a metal fence, and the small shops in the area have various sales such as swimwear, bath tools, mineral water, and juices. As for going to the public hammam, it is a common habit in the popular middle class, not just for tourists, as it helps to relax and communicate with each other, and having a swimming pool is its special character, in addition to the low cost per person compared to the private hammam. The private hammam is available in all the hammams, and it is often used by small families. However, its cost is a little bit high compared to public baths because its use is calculated per hour. As for other facilities, they differ from one bath to another, and we note the presence of cafés and restaurants in only 4 baths because establishing cafés and restaurants on a global scale is expensive. In addition, most tourists go only to the hammam and not to the cafés or the restaurants especially that they have high prices and without the required service, so most tourists prefer to have lunch or dinner in the city or nearby cities. As for hotels, I do not think they are in high demand by tourists. In fact, there is only one hotel in service and one hotel under construction, as most visitors are from neighbouring municipalities or other neighboring states, and staying in a hotel

raises the problem of prices and the nature of the services provided. In general, the services that should be available from the tourists' point of view are provided, the most important of which are parking, public baths, and small shops. Among the reasons that led to the delay in development in the area of the baths, we also mention the projects programmed by the state, which have not been implemented until today, such as the project of the tourist expansion zone in the municipality of Teleghma and the project of the Hamouia village. Both projects are registered with the Tourism Directorate of the province of Mila and the Ministry of Tourism and Traditional Industries. These projects can provide a new impetus for the establishment of world-class Hamouia tourism, with high-quality services and the attraction of both local and foreign tourists.

Table 4. Services available within the hammamet of Teleghma (Source: Author)

| | Lakhdar | Tauoili | Sahâb | Menacer | Shaoush | Menshar | Lafhale | Helale | Mazashe | Awlad Ali |
|-----------------------|---------|---------|-------|---------|---------|---------|---------|--------|---------|-----------|
| Parking | + | + | + | + | + | + | + | + | + | + |
| public hammam | + | + | + | + | + | + | + | + | + | + |
| private hammam | + | + | + | + | + | + | + | - | + | - |
| Small shops | + | + | + | + | + | + | + | + | + | + |
| Restaurant | + | - | + | + | + | - | - | - | - | - |
| Café | + | - | + | + | + | - | - | - | - | - |
| Hotel | + | + | - | - | - | - | - | - | - | - |



Figure 11. Roadside restaurant (Source: Author)



Figure 12. The smallest hammam in the area (Source: Author)

4. CONCLUSION

Thermal tourism in Algeria is a social behavior inherited from ancient times. Therefore, the hammamet of Teleghma are a popular tourist destination for local residents or visitors from other nearby areas. Despite the modest services provided by those hammamet for tourists, the number of visitors is continuously increasing each year. This indicates that

thermal tourism can be an alternative to investment. However, this tourism activity in the study area is full of obstacles. For investors, even if the financial resources are available, fear remains related to two basic factors: the quantity of available water and its sustainability due to the absence of a detailed study on those resources in the region, in addition to the problem of property ownership of the lands, most of which are owned collectively by large families. This ownership may lead to disputes that end with the suspension of the projects intended to be carried out. In addition, we notice a complete absence of development projects outlined by the state, especially the thermal tourism village project and the tourist expansion area in the municipality of Teleghma. This delay has negatively affected the tourism performance in the region, despite the relentless efforts to implement these projects. Therefore, the thermal tourism sector in the study area needs to be reassessed by reorganizing it, increasing its attractiveness, preserving natural resources, and introducing new and effective curricula for tourism and entertainment development. The future development of tourism in the region should be based on economic, legislative, and investment components, infrastructure development, introducing tourism culture to investors, and activating the role of the state.

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