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	<p>RESEARCH ARTICLE </p>	
	<p>Desert Tourism in the Ahaggar Region: Reality and Challenges</p>	
<p>Taguedda Khaoula</p>	<p>Dr. University of Algiers 3 Algeria Email: taguedda.khaoula@gmail.com</p>	
<p>Mefatih Yamina</p>	<p>Dr. University of Tamanrasset Algeria Email: yamina136@gmail.com</p>	
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<p>Abstract This study aimed to analyze the current state of desert tourism in the Ahaggar region of Algeria by highlighting its main natural and cultural tourism assets, examining the evolution of national and international tourist flows, and analyzing the impact of security constraints and the 2010 decision on tourism activity. The study adopted a descriptive-analytical approach based on official data and field interviews with sector stakeholders. The findings revealed that the region possesses globally significant tourism potential; however, the sector experienced a decline in foreign tourism after 2010, contrasted with a relative improvement in domestic tourism. Several challenges persist, particularly in infrastructure, promotion, training, and transportation costs. The study recommended diversifying tourism markets, enhancing professionalism, and strengthening domestic and intra-regional tourism. Algeria possesses all the attributes that qualify it to become one of the leading tourism destinations at both regional and global levels. Its landscape is diverse, ranging from coastlines and mountain ranges to plateaus, valleys, and a vast desert classified among the most beautiful in the world.</p>		
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Introduction

This rich heritage integrates natural, geographical, civilizational, and cultural factors, along with climatic diversity that historically contributed to the formation of ancient civilizations. These civilizations have preserved their distinctive character, reflecting the immense historical accumulation across the country.

The Algerian desert represents the true and enduring wealth capable of generating billions of dollars annually for the state treasury. Desert sites across the national territory hold immense human, civilizational, economic, and tourism significance and require effective exploitation. Hence, greater development efforts are needed due to their crucial role in stimulating

tourism through authentic information, diverse methods of presentation, and unique landmarks. Desert tourism plays a major role in regional development.

Research Problem

Based on the preceding discussion and field observations within the sector, the following research question is raised:

What is the reality and what are the challenges of tourism in the Ahaggar region before and after the 2010 decision?

From this main question, the following sub-questions emerge:

- What are the tourism assets of the Ahaggar region?
- What was the impact of the 2010 decision on tourist flows (particularly the European market)?

Importance of the Study

- To demonstrate the significance of desert tourism;
- To compare tourist flows by year and by tourism circuits, highlighting key differences.

Objectives of the Study

This study aims to:

- Highlight the importance of desert tourism;
- Present the main causes of sector decline;
- Identify the necessary mechanisms to ensure sector success and achieve economic development.

Methodology

The study relied on the descriptive-analytical method. Tourism was described, and tourist flows over a twenty-year period were examined. Major tourism circuits in the region were identified. Interviews were conducted with the Directorate of Tourism and Handicrafts and the National Office of the Cultural Park. The results were analyzed to formulate proposals regarding the mechanisms necessary to activate and develop this sector.

Data Sources

Given the nature of the research topic and to answer its central problem, primary data were collected from:

- The Directorate of Tourism and Handicrafts
- The National Office of the Cultural Park

Structure of the Study

To achieve the study's objectives and expected results, the research was divided into three main sections:

1. The theoretical framework of desert tourism and presentation of the Ahaggar region;
2. Tourist flows in the Ahaggar region;
3. Tourism circuits in the Ahaggar region.

Section One: Theoretical Framework of Desert Tourism and Presentation of the Ahaggar Region

The Algerian desert is the second largest desert in the world, covering approximately 2 million km² and representing 84% of Algeria's total area (2,381,741 km²). Its most prominent features are the Ahaggar and Tassili parks, famous for prehistoric rock art dating back to the Stone Age.

First: Concept of Desert Tourism

1. Definition of Desert Tourism

The Algerian and Tunisian deserts have long been considered unique regions. The first tourism guide, published in 1931 by General Meynier and Captain Nabal, was titled "*Le guide pratique du tourisme au Sahara*" (The Practical Guide to Tourism in the Sahara). This was followed in 1934 by the first automobile tourism guide in the desert published by Shell in Algeria (Abbès Zahia & El Abed Samira, 2012, p. 3).

Desert tourism dates back to 1919 with the exploration of the northern Sahara. Dubreuil, Audoin, and Haardt penetrated the desert using Citroën vehicles. In subsequent years, tourist routes were opened, including the Ahaggar route (1922-1929), the Tanezrouft route (1923), and the Mauritania route (1934). A turning point occurred in 1930 with the organization of the first desert rally from Algiers through Tamarasset to the Nigerian border, aiming to demonstrate the feasibility of crossing the desert by automobile. The Paris-Dakar Rally later became emblematic of desert tourism

expansion. Europeans were particularly fascinated by discovering the desert, its inhabitants, and landscapes, influenced by travel literature that portrayed the desert as exotic (Mefateh Yamina, 2018, p. 116).

Algerian legislation defines desert tourism as:

“Any tourist stay in a desert area based on the exploitation of the natural, historical, and cultural resources of this environment, accompanied by related leisure, entertainment, and exploration activities.” (Law No. 03-01, 19/02/2003, p. 5)

Second: Presentation of the Ahaggar Region

The history of Tamanrasset dates back approximately 600,000 years, when prehistoric humans established an advanced civilization in the Algerian Sahara. Rock engravings and cave paintings discovered in Tassili, Ahaggar, and Tidikelt testify to this heritage. Today, it represents one of the richest open-air museums of prehistoric art. UNESCO has classified the Ahaggar National Park as a World Heritage Site.

Tamanrasset has historically attracted diverse populations, including the Berbers (Tuareg), and later became a major trade hub when the Romans settled in North Africa. It evolved into a caravan crossroads linking Europe, Rome, and Africa. The region witnessed several resistance movements, including the Daghmasha, Tidikelt, Fiqiqira, Tit, and Sheikh Amoud revolts.

Strategically located, Tamanrasset contains the Ahaggar Park—one of the largest globally recognized parks—rich in natural resources and shaped by successive civilizations. It serves as both a tourist destination and a cultural and commercial crossroads.

The Ahaggar region covers approximately 557,906.25 km², representing about 23% of Algeria’s territory. Located in the far south, 2,200 km from the capital, Tamanrasset became a province (wilaya) in 1974. It borders Ghardaïa to the north, Ouargla to the northeast, Illizi to the east, Adrar to the west, Mali to the southeast, and Niger to the southwest, with a border strip of approximately 1,200 km. This strategic position makes it a gateway between Algeria and Africa and an important commercial and cultural exchange point.

Third: Tourism Assets of Ahaggar

Natural Assets

1.

Location:

Tamanrasset occupies a geostrategic position within one of the largest UNESCO-classified heritage parks. It contains archaeological sites dating back thousands of years, documenting early human and pre-human activity. The region was once among the most densely populated areas in prehistoric times. It also contains dozens of rock engravings and paintings dating back 12,000 years. Furthermore, it serves as the gateway between the Sahara and the African Sahel.

2. Climate:

- Latitude: 22°48' North
- Longitude: 5°27' East
- Elevation: 1,362 meters

Temperature Data

Table 1: Temperatures in the Ahaggar Region Throughout the Year

Month	Avg. Max Temp (°C x10)	Avg. Min Temp (°C x10)	Absolute Max	Absolute Min
Jan	20.2	5.3	28.0	-4.3
Feb	22.6	7.6	30.2	-2.6
Mar	22.5	10.6	33.0	0.2
Apr	29.2	14.7	36.7	2.5
May	32.6	18.9	38.5	7.0
Jun	34.8	22.3	39.6	14.9
Jul	34.6	22.6	40.0	13.7
Aug	34.0	22.1	38.3	16.5
Sep	32.4	20.4	36.8	14.3
Oct	28.9	16.0	34.6	8.7
Nov	24.5	10.6	30.5	0.9
Dec	20.8	6.6	38.5	-4.5
Annual	28.3	14.8	40.0	-4.5

Source: *Tourism Monograph of Tamanrasset Wilaya, Directorate of Tourism*, p.18.

b) Rainfall (Monthly Average in 1/10 mm)

Table 2: Annual Rainfall

Month	1	2	3	4	5	6	7	8	9	10	11	12	Annual
Amount	22	12	20	22	67	48	40	81	87	32	19	20	470

Source: Same as above.

c) Average Wind Speed (Monthly Average in 1/10 m/s)

Table 3: Annual Average Wind Speed

Month	1	2	3	4	5	6	7	8	9	10	11	12	Annual
Speed	33	39	48	49	46	47	46	41	42	37	30	28	41

Source: Same as above.

d) Humidity (Monthly Average in %)

Table 4: Average Humidity Throughout the Year

Month	1	2	3	4	5	6	7	8	9	10	11	12	Annual
Humidity	27	24	21	19	19	17	18	20	23	26	28	27	22

Source: Same as above.

3) Topography

The region consists of plains and plateaus reaching elevations of 2,000 meters, as well as mountain peaks such as:

- Mount Tahat (2,918 m)
- Mount Ilaman (2,760 m)
- Assekrem (2,728 m)

4) Vegetation

The vegetation cover includes more than 300 plant species, many of which are used for medicinal purposes (such as wormwood and *tabrakat*) and for pastoral activities.

Historical, Cultural, and Religious Assets

The National Park contains archaeological sites evidencing human presence from the Paleolithic era to modern times, including:

- **Tin Hinan Mausoleum:** Tin Hinan, the legendary queen of the Tuareg, is buried in Abalessa, about 100 km northeast of Tamanrasset. Her remains are preserved in the Bardo Museum in Algiers. The mausoleum dates back to before the 5th century.
- **Moussa Ibn Mostan Palace:** Located in the Soru area (Tamanrasset municipality), distinguished by Saharan architectural style, built between 1916 and 1918.
- **Silet Fortress (Kasbah):** Located in Silet district.
- **Bajouda Palace in In Salah and the Kasbah of Ouled Sidi El Mokhtar** (also in In Salah district).
- **Father Foucauld's Hermitage:** Located in Assekrem; formerly a retreat, it has become a major tourist destination.
- **Tamkrest Waterfalls:** Located 50 km from the provincial capital.
- **Petrified Forest in Tidikelt:** (In Salah, In Ghar, Foggaret Ezzaouia).

Cultural Festivals and Events

The Ahaggar region hosts numerous festivals, including:

- **Assihar Festival:** An economic, cultural, and tourism event held from January to February.
- **Tafsit Festival:** A cultural tourism event held during March and April.
- **Amazigh Song and Music Cultural Festival:** Held in December.

Religious Visits in the Ahaggar Region

- **Daghmouli Visit:** Held 60 km northwest of Tamanrasset in May.
- **Moulay El Hassan Visit:** Held 300 km north of Tamanrasset in October.
- **Moulay Abdallah Visit:** Held in Tazrouk municipality, 280 km west of Tamanrasset, in August.
- **Sebaaine Saleh Visit:** Held in In Salah in May.

Traditional Handicrafts

Tamanrasset Province is renowned for its rich and diverse handicrafts, reflecting a long-standing civilization shaped by human creativity and refinement. Handicrafts can be divided into two main areas:

Ahaggar Area

- **Traditional Jewelry:** Anklets, bracelets, etc.
- **Leather Craft:** Water skins, tents, etc.
- **Pottery:** Cooking and serving utensils such as pots and pitchers.
- **Woodcraft:** Decorative boxes, utensils.
- **Traditional Clothing:** High-quality garments adorned with embroidery and vibrant colors, highly appreciated by tourists (men and women).

Tidikelt Area

- **Traditional Jewelry:** Distinct from Ahaggar jewelry, characterized by larger and heavier designs.
- **Traditional Clothing:** Such as women’s cloaks worn at weddings.
- **Basketry:** Due to the abundance of palm trees; products include trays, mats, etc.

Table 5: Number of Artisans in the Ahaggar Region

Category	Artisans	Cooperatives	Total
Artistic Handicrafts	202	8	210
Production Handicrafts	105	0	105
Service Handicrafts	639	0	639
Total	946	8	954

Source: Chamber of Handicrafts and Trades, Tamanrasset Province.

Infrastructure

Infrastructure plays a key role in tourism development by providing essential services such as transportation networks, accommodation facilities, and travel agencies.

Transportation Networks

1) Road Transport

Table 6: Road Transport Networks in the Ahaggar Region

Road	Route	Length (km)
RN1	Ghardaïa - Niger	1257
RN3	Illizi - Mali	149
RN52	Adrar - In Salah	90
RN54	Illizi - In Guezzam	270
RN55	Ain Amguel - Illizi	360
Total (1)		2126

National Roads

Provincial Roads

Road	Route	Length (km)
CW109	Tamanrasset - Taghaouhaout - Tahifet	80
CW140	Tamanrasset - Assekrem	87
CW141	Adeles - Tazrouk - Tahifet	133
CW142	Adeles - Tazrouk - Tahifet	130
Total (2)		430

Unclassified Roads

Route	Length (km)
Silet - Timiaouine	390
Silet - Tinzaouatine	380
Tin Messaou - Bordj Badji Mokhtar	230
Bordj Badji Mokhtar - Timiaouine - Tinzaouatine	1040
In Guezzam - In Zaoua	210
Hassi Lakhniou - Amguid	441
Amguid - Zoutlaz	370
Foggaret Ezzaouia - Tamzqida - Amguid - Merdoua	180
Total (3)	3241

Grand Total Road Network: 5,797 km

Source: Transport Authority of Tamanrasset Province.

Air Transport

The region contains three airports:

- **Aguenar Airport (Tamanrasset):** Two runways (3,100 m and 3,600 m) - international and domestic.
- **Tafsaout Airport (In Salah):** One runway (3,000 m).
- **In Guezzam Airport:** One runway (2,200 m).

Accommodation and Reception Facilities

The region has experienced diversification in tourism facilities due to increasing tourist arrivals. These facilities have contributed to reducing unemployment and supporting tourism development.

- 17 hotels
- 16 tourist camps
- Employ approximately 365 workers (160 permanent)
- 82 travel agencies
- Employ approximately 645 workers (112 permanent)

The region also includes three local tourism offices:

- Tamanrasset Local Tourism Office
- In Salah Local Tourism Office
- In Ghar Local Tourism Office

Other Tourism Assets

Media

The region has a local radio station that periodically broadcasts tourism-related programs in coordination with tourism operators to promote the destination.

Tourism Training and Qualification

To supply the tourism sector with specialized labor, the National Specialized Institute for Vocational Training in the province offers tourism-related programs, which serve as a key driver for employment and self-employment. Specializations include:

- Tour guide
- Reception and assistance
- Tourism animation and entertainment
- Hotel management
- Hospitality and cooking
- Hospitality and catering

Tourism Diversity

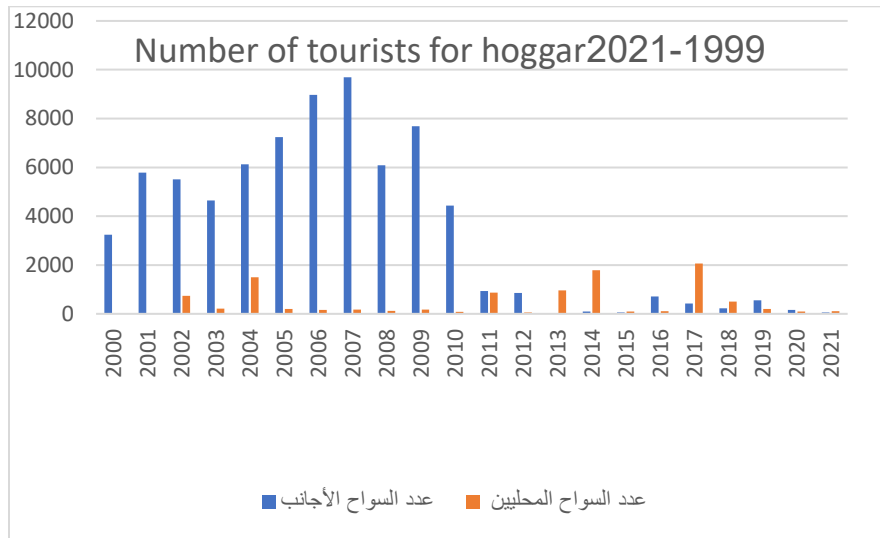
The region includes multiple forms of tourism, many of which remain underexploited (Tourism Development Master Plan of Tamanrasset, p. 21):

- **Ecotourism:** Mountain climbing, nature observation, photography, archaeological site visits, exploration of valleys, mountains and dunes, bird and wildlife observation.
- **Health Tourism:** Thermal springs and therapeutic sand treatments for skin diseases, rheumatism, and spinal disorders.
- **Cultural Tourism:** Visits to archaeological and religious sites, festivals, economic events, and religious gatherings.
- **Sports Tourism:** Potential for international motorcycle and bicycle races on mountainous and sandy tracks, camel racing, sandboarding, and mountaineering.
- **Religious Tourism:** Visits to mosques, religious schools (zawiyas), Islamic celebrations (e.g., Mawlid), religious gatherings, and churches.
- **Business Tourism:** The region hosts international commercial and economic exhibitions, particularly involving neighboring countries such as Mali and Niger, as well as other African states.

Section Two: Tourist Flows in the Ahaggar Region

Table 7: Number of Tourists Arriving in the Ahaggar Region (1999-2021)

Number of Foreign Tourists	Number of Domestic Tourists	Year
450	0	1999
3,237	0	2000
5,782	0	2001
5,507	738	2002
4,649	209	2003
6,121	1,500	2004
7,246	197	2005
8,977	163	2006
9,687	179	2007
6,080	126	2008
7,681	169	2009
4,440	86	2010
933	874	2011
854	50	2012
25	964	2013
98	1,783	2014
59	93	2015
717	112	2016
418	2,067	2017
222	507	2018
557	204	2019
154	96	2020



Blure foreign tourists.
orange bar: local tourists

Source: Prepared by the two researchers based on documents from the Directorate of Tourism and Handicrafts.

From the table and figure above, it can be observed that most tourists to the region are foreigners. Their numbers increased from 2000 until 2003, when arrivals declined due to the kidnapping of German tourists in the Algerian desert in spring 2003. However, numbers soon began to rise again after the hostage crisis ended, and the increase continued until 2007, which recorded the highest level during the study period, reaching nearly 9,700 tourists.

By contrast, domestic tourism was modest, and in some years it was almost non-existent, due to the “Black Decade” and the concentration of promotional efforts on the European market. A decline in tourist numbers is then observed starting in 2010 due to the security situation in the Sahel countries, the refusal to grant visas to tourists, and the closure of most of the most demanded tourist sites (Tassili and Ahaggar). A further decline occurred in 2020 and 2021 due to health conditions.

As a result of this downturn, travel agencies shifted toward domestic tourism by signing agreements with certain institutions so that their employees could benefit from incentives to visit the region under social services schemes. After domestic arrivals were zero in 2000, they reached 2,067 tourists, representing 83% of total tourists that year.

What stands out—and raises questions—is the fluctuation in the number of domestic tourists from one year to another. This is due to travel agencies not receiving discounted airfare until after the start or end of the tourist season, which in turn delays promotional campaigns beyond the appropriate timing. Another issue is the weakness of promotional campaigns due to not relying on specialized marketing expertise.

The following table shows the numbers of hotel and camp users in the Ahaggar region for 2021:

Table 8: Number of Algerian and Foreign Arrivals and Overnight Stays in Hotel Establishments (2021)

Month	Algerians Arrivals	Algerians Nights	Foreigners Arrivals	Foreigners Nights
January	550	610	0	0
February	422	356	7	7
March	643	672	20	20
April	368	916	21	44
May	538	1034	13	94
June	704	1580	5	22
July	373	695	16	38
August	601	1180	37	108
September	718	1315	48	95
October	907	1614	66	74

November	975	1614	63	74
December	7419	20457	147	183
Total	14236	32277	443	833

Source: Directorate of Tourism and Handicrafts of Tamanrasset Province, Annual Report 2021.

From the table, hotel users totaled 14,236 domestic tourists and 443 foreigners—far exceeding the number of tourists coming through travel agencies, which did not exceed in the same year 112 domestic tourists and 50 foreign tourists. This is because many hotel guests came for other purposes such as business or administrative transactions, or they came as tourists but informally without going through agencies. This is linked to the high cost of formal tourism services; in contrast, tourists find more affordable options through informal providers, as reflected in the tourist figures.

The table also shows tourist flows throughout all months of the year, even outside the Saharan tourist season (from September/October until April/May), which suggests that many visits are work-related. This indicates the need to encourage this type of tourism (“business tourism”). We also note that the number of overnight stays outside the peak season is high (June, July, August) compared to the main season, further confirming that many hotel users were visiting for work. During the tourist season, most tourists spend their holidays outside the province in the tourist sites rather than in hotels.

Section Three: Tourism Routes in the Ahaggar Region

The number of routes that were officially approved within the park reached 12. Each route includes a set of well-known natural, cultural, and tourism sites in the region, as shown in the following table:

Table 9: Tourism Routes Approved by the Ahaggar Park

Route Name	Distance (km)	Duration (days)	Planned Places to Visit
Atakor Route “A”	160	5-15	Tamanrasset - Assekrem - Ilaman - Terhant - Tagmart 1 - Tagmart 2 - Outoul - Aguenar - Tamanrasset
Atakor Route “B”	290	5-15	Tamanrasset - Assekrem - Hirafok - Idles - Tazrouk - Tahifet - Taneght - Azmen - Tamanrasset
Tassili Ahaggar	600	15-21	Tamanrasset - Ifeq - Oued Aghrghar - El Ghassour - Tin Akchakir - Taghrira - Tahqart - Youf Aghlal - Youf Ahkit - Oued Tin Trabin - Oued Fouts - In Dalaq - Tamanrasset
Tassili Tin Aghrhou	1200	7-10	Oued Tilemzi - Tim Qaouine - Tin Aghrhou - In Gashlan - Biroutan - Louni - Tamanrasset
Tassili Timissaw	650	5-20	Tamanrasset - Abalessa - Silet - Timissaw - Oued Ilgh - Tin Aghrhou - Oued Tilemzi - Tamanrasset
Tafedast	700	7-15	Tamanrasset - Ain Anguel - Oued Ouhat - Oudan (Gara Jenoun) - Adrar Ehqaghen - Oued Dahin - Mertoutek - Idles - Hirafok - Tamanrasset
Western Sahara (Al Wahida)	1500	15-21	Tamanrasset - Taghrira - Tahqart - Isalan - Kilian - Mts. Gauthier - Mts. Tiska - Djanet - Idles - Tamanrasset
White Tafedast	800	7-15	Tamanrasset - Amdghour - Afra - يدرد - Isendilan - Djanet (Tassili n’Ajer)
Stay in Tazrouk	750	5-10	Tamanrasset - Tamkrest - Tahifet - Tazrouk - Idles - Tismit - Amdghour - Ain Anguel - Outoul - Tamanrasset
Adrar Nahant	1400	7-10	Tamanrasset - Akar Akar - Tajmout - Tadjfil - Guelta In Ziza - Tassili Timissaw - Silet - Abalessa - Tamanrasset
Hassi Belguor toward Amguid	1500	15-21	Hassi Belguor - Bordj Omar Driss - Amguid
Amguid - Djanet	1500	7-15	Amguid - Erg Thiouadan - Bordj El Haouas - Djanet

Source: Basma Kahoul, *The Role of Desert Tourism in Achieving Sustainable Local Development in Algeria (Case of the Ahaggar National Park in Tamanrasset)*, PhD thesis, Business Administration and Sustainable Development, University of Sétif, p. 167.

Tourism routes are a means of marketing tourism products. Tamanrasset Province is known for several routes—12 routes according to the cultural park of Tamanrasset—and others that remain unknown to date. The table shows that these are long routes requiring several days, and they often involve rugged geography; therefore, camping is done at points along the routes to explore cultural and archaeological sites. However, most of these routes—especially Tassili—were closed due to the deterioration of security conditions in the Sahel countries. Only three authorized routes remained:

- **Assekrem Route:** Tamanrasset - Afilal - Assekrem - Terhenant - Tagmart 1 - Tagmart 2 - Tamanrasset.
- **Mertoutek Route:** Tamanrasset - Abalessa (Tin Hinan Mausoleum) - Hirafok - Mertoutek - Idles - Tazrouk - Tamanrasset.
- **White Tafedast Route:** Tamanrasset - Ain Amguel - Oued Ouhat - (Gara Jenoun) - Mertoutek - Idles - Tamanrasset.

Distribution of Tourists Across Routes

Table 10: Distribution of Tourists by Routes During the 2021/2022 Tourist Season

	Sept 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022
Tassili Routes - Domestic	5	62	66	171	117
Tassili Routes - Foreign	0	0	0	0	0
Other Routes - Foreign	0	4	12	2	5
Other Routes - Domestic	5	47	90	18	47
Total	10	113	168	191	169

Source: Prepared by the two researchers based on documents from the National Office of the Cultural Park.

The table shows that domestic tourists concentrated on the Tassili routes because they were allowed to visit those areas. Foreign tourists, however, were absent from this route—although during the period 1999–2009 it accounted for (or exceeded) 50% of tourist arrivals. This is because it was closed by the relevant authorities in 2010 due to security concerns in neighboring countries. It was the most demanded destination in the European market; therefore, the region witnessed a decline and reduced tourist arrivals.

Other routes—such as Atakor “A” and “B” and Assekrem—do not exceed 600 km and are the routes permitted for foreign tourists, as mentioned earlier. Despite improvements in security conditions in neighboring countries and efforts by the authorities, the situation has remained unchanged.

Study Findings

Based on the above, the study reached the following conclusions:

- The Ahaggar Park is among the largest protected areas globally; it is one of the greatest open-air museums with cultural and natural diversity, in addition to intangible cultural heritage that attracts tourism.
- The tourism pattern in the region relies on camping outside the city for several days; tourists spend only two nights in town (arrival and departure), yet the region suffers from a shortage of accommodation services and poor quality.
- High ticket prices are a major obstacle to tourism activity, especially for domestic tourism, where airfare constitutes the largest portion of travel costs.
- The region includes many forms of tourism, but most remain underexploited.
- More than 80 camps and travel agencies operate in the region, requiring tours to be conducted under agency supervision; however, most lack professionalism due to weak training, despite their practical experience in desert routes.
- Foreign tourist flows declined sharply due to security deterioration and the closure of tourist sites following the 2010 decision, along with the authorities’ reluctance to grant visas even as security conditions began to improve.
- Domestic tourist flows improved noticeably after the 2010 decision due to a shift toward domestic tourism through certain incentive measures, but these remain insufficient because domestic tourist numbers fluctuate from year to year.

Recommendations

The following recommendations may help develop the tourism sector in the Ahaggar region:

- Promote the Ahaggar tourism product through an integrated promotional mix, and use “Ahaggar” as a destination brand to attract tourists.

- Modernize the tourism training system to build professionalism among stakeholders, including establishing tourism programs at the university level or creating a specialized institute.
 - Build accommodation structures consistent with the region's architectural style using local materials, as these are more appealing to tourists, and benefit from other countries' experiences.
 - Contract private security companies to accompany tourists on tours without heavy protocols, riding in the same vehicle as tourists, to reinforce feelings of safety.
 - Encourage conferences, festivals, and national/international sports events to showcase the region's assets and promote related tourism forms (business tourism, adventure tourism, scientific tourism, etc.).
 - Encourage domestic and intra-regional tourism alongside international tourism, given the sensitivity of the sector.
- Tourism in Ahaggar before the 2010 decision relied heavily on the European market; when security conditions deteriorated, tourism declined. Therefore, the sector should also target Arab markets—especially Gulf countries—given their high potential contribution to national revenues.

Ethical Considerations

This study was conducted in accordance with recognized academic and research ethics standards. The research relied on official statistical data, publicly available documents, and field interviews with stakeholders in the tourism sector. All interview participants were informed about the purpose of the study, and their participation was voluntary. The anonymity and confidentiality of respondents were fully respected, and the collected information was used exclusively for scientific purposes. The authors confirm that the research does not involve any human experimentation or sensitive personal data that would require institutional ethical approval.

Author Contributions

- **Taguedda Khaoula:** Conceptualization, research design, data collection, field interviews, data analysis, and manuscript drafting.
- **Mefatih Yamina:** Methodological support, data validation, critical revision of the manuscript, and final approval of the version to be published.

All authors have read and approved the final manuscript and agree to be accountable for all aspects of the work.

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Conflict of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper. The research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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