

## THE REALITY OF AGROTOURISM AND THE CHALLENGES OF LOCAL DEVELOPMENT IN BOUMERDES PROVINCE: FOUNDATIONS AND OPPORTUNITIES FOR SUSTAINABLE AGRICULTURAL DEVELOPMENT

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**Abstract:** Agriculture plays a pivotal role in ensuring food security and providing employment opportunities, while tourism is a strategic element in economic development, especially in resource-rich countries like Algeria, which boasts unique tourism potential with its 1,600 km coastline, mountain ranges, and vast deserts. The integration of agriculture and tourism, particularly through agro-tourism, has become a key approach to achieving sustainable development in both sectors. This study focuses on agro-tourism in Algeria, with a particular emphasis on olive oil tourism, using the "Kiard" olive oil mill in Baghlia, Boumerdes, as a model, which has become a prominent tourist destination. The study relies on field data collection through visits to relevant institutions such as the Ministry of Agriculture, the National Institute for Fruit Trees, and the Kiard Olive Oil Mill. Data analysis was conducted using the Geographic Information System (GIS) through ArcGIS software, allowing for the mapping of the tourism potential of this agricultural site. The results highlight the significant potential of the olive and olive oil sector in attracting both local and foreign visitors interested in traditional products such as olive oil waste-based soap, natural cosmetics, and local dishes prepared with locally produced olive oil. This agro-tourism model not only helps preserve traditional agricultural activities but also contributes to the region's economic development. The study also emphasizes the need for investments in tourism infrastructure, as well as the adoption of scientific and strategic management to ensure the sector's sustainability. Additionally, farmers and rural communities directly benefit from these tourism activities, providing them with alternative sources of income and enhancing social sustainability. In conclusion, olive oil tourism, as part of agro-tourism, represents a promising sector for sustainable rural development in Algeria. However, strengthening this sector requires effective management and targeted investments to maximize its positive impact on the local economy while preserving the region's natural and cultural heritage. With appropriate policies and collaboration between the agriculture and tourism sectors, Algeria can enhance its position in both fields.

**Keywords:** agro-tourism, sustainable agricultural development, rural development, agricultural tourism activities, olive oil mills

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### INTRODUCTION

The agricultural sector is a vital one, playing a fundamental role in providing food for the population and creating job opportunities for a wide range of society (Hayami & Ruttan, 1971). At the same time, the tourism sector is considered a strategic one for economic development in any country, especially when natural and human resources are available to support and develop it. In this context, Algeria is one of the countries with outstanding natural tourist potential, possessing over 1,600 km of coastline, diverse mountain ranges, and a desert that is a year-round attraction for foreign tourists (Bouziane & Hassan, 2015; Yusoff et al., 2019). Therefore, enhancing the integration between the agricultural and tourism sectors is an urgent necessity that requires attention and serious efforts to achieve. Developing Agro-tourism or tourism agriculture is an important topic due to the opportunities it offers for the development of both sectors together (Boiko et al., 2020; Sobaih et al., 2024). Recently, Algeria has started adopting some tourism activities in agricultural areas, both in the north, which is rich in natural resources, and in the vast south, where tents, services, and traditional meals are provided (Rabehi et al., 2023). Some farm owners have transformed parts of their farms into tourist destinations for families seeking relaxation, comfort, and an escape from urban life pressures. These spaces offer an ideal environment for children to enjoy playing and rejuvenating, adding a healthy and recreational dimension to the experience.

Notably, these farms promote local and traditional products as a means of financial support. These products include cheeses, fresh healthy foods, as well as animal breeding such as horses, rabbits, ducks, sheep, and goats. These activities represent an encouraging model for preserving agricultural activity while providing simple means that enhance its tourist appeal. In this way, economic and social sustainability is achieved without compromising the traditional agricultural character of the farm (Janker et al., 2019). The Baghlia Olive Press is considered a successful model for the integration of agriculture and tourism. The owners have equipped the facilities to include parking lots and shops displaying traditional products such as

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soap made from olive oil waste, natural cosmetics, pottery, wooden utensils, and traditional food products like different types of couscous made from wheat, barley, and acorn flour, which are prepared by rural women as a source of income.

During our visit to the area, we noticed a large influx of visitors to the press, even outside the olive oil pressing season, whether from locals or from the Algerian diaspora with their foreign friends. They were drawn to the press not only for the high-quality olive oil but also for the traditional products available, and for tasting dishes that include the locally-produced olive oil, such as couscous. We chose to study an agricultural tourism model represented by the olive press, specifically the Kiard & Baghlia presses, which have become prominent tourist destinations. Baghlia Press, for example, is strategically located between highlands and valleys, with a picturesque nature adorned by olive trees. This press has received local and international medals for the quality of its olive oil, making it a popular destination for both locals and foreign tourists.

Through this research paper, we aim to study the distribution of olive trees in the Province of Boumerdes, as well as the production of olives and olive oil. The study seeks to highlight the significance of certain field activities that can contribute to the optimal utilization of cultivated areas and the preservation of land productivity. Additionally, it explores mechanisms to expand agricultural activities and protect agricultural lands. Agritourism, particularly olive oil tourism or mill tourism, is a key topic deserving attention. The research problem focuses on studying agricultural activities that help preserve the agricultural character of the land, especially those that can stimulate development in agricultural and rural areas. These activities require scientific monitoring and guidance to develop effectively.

Such activities rely on the influx of visitors to agricultural areas, necessitating the scientific and well-planned preparation and management of these spaces. The study focuses on the potential of olive and olive oil production and raises the following question: Can agritourism, specifically olive oil tourism or olive mill tourism, be organized in the Province of Boumerdes as a model applicable on a national level? The study is based on a model of olive farming, olive production, and olive oil production in the Province of Boumerdes, with a particular focus on the Kiared mill, which produces virgin olive oil in the Municipality of Baghlia, as a practical case study.

## LITERATURE REVIEW

The tree, particularly the olive tree, stands as a profound symbol of identity and belonging, embodying resilience and the enduring bond between humans and nature (Abufarha, 2013). In his writing, Mouloud Mammeri presents a vivid depiction of the close relationship between humans and the olive tree, which he perceives as a reflection of human characteristics themselves. The olive tree is not merely a plant; it is an integral part of the daily life and historical memory of Mediterranean peoples. It possesses a remarkable ability to adapt to harsh weather conditions, unlike other trees that grow skyward, remaining steadfast with deep roots that defy adversity. According to Mammeri, the olive tree is a "climatic tree," meaning it has the innate capacity to withstand and thrive in the face of drastic environmental shifts. The olive tree, he observes, "bears fruit only in winter," (Abufarha, 2013) when the majority of other trees have given up to the cold. The fruit's harvest, which symbolizes tremendous effort and sacrifice, becomes a celebration under these difficult circumstances. He also emphasizes how the olive tree represents memory and history, with some old trees displaying signs of aging in their trunks, much as how collective memory is transmitted to the next generation.

Like people, olives tend to be resilient and reject ease. Under these circumstances, the olive tree becomes a representation of perseverance and resistance, a mark of ancestry, and the close connection that exists between people and the land they live on. It is more than simply a tree; it is a part of a lengthy history that attests to the struggles and victories that people have faced throughout the years. As agro-tourism has grown in Mediterranean nations (Bramwell, 2003), "olive oil tourism" has become a popular word for showcasing local traditions and agriculture. Olive oil tourism is a type of agritourism that lets tourists spend time in fields and farms surrounded by olive trees while engaging in farming and agricultural production-related activities. This kind of tourism is growing significantly in several nations where farms have the infrastructure to receive tourists, boosting farm owners' profits while promoting agricultural goods.

Over the past decade, olive tourism has gained significant attention among researchers, leading to the publication of both theoretical and empirical studies. Initial research was conducted in Australia (Northcote & Alonso, 2011) before expanding to Europe. Olive tourism is defined as a set of activities centered around olives, olive oil, olive trees, and their related heritage (Kouri, 2024). According to Salvado & Monteiro (2024), this tourism sector not only offers various activities but also provides immersive experiences, emotions, and sensations linked to olive oil and the specific production conditions of each region. Dancausa Millán & Millán Vázquez de la Torre (2024) define olive oil tourism as a form of tourism that establishes strong connections between culture, nature, and gastronomy.

Olive tourism has been studied from multiple perspectives. Pulido-Fernández et al. (2019) attempted to structure the main scientific contributions based on the synergies between olive tourism and other tourism sectors, including gastronomic, industrial, rural, and cultural tourism. Gastronomy plays a crucial role in tourism by enabling visitors to engage with local culture (Pulido-Fernández et al., 2019). Local products facilitate cultural exchange and knowledge transfer between local artisans—who act as guardians of regional traditions and identity—and residents, fostering an exceptional medium for cultural exchange (Millán-Vázquez de la Torre et al., 2017). As a result, gastronomy is considered a fundamental pillar of olive tourism activities in rural areas (Pato, 2024). Furthermore, olive tourism has emerged as a practice similar to wine tourism, with notable similarities between the two. Both focus on promoting the host region, bringing tourists closer to nature, and offering insights into rural and agricultural traditions (Pahari, 2024).

On a small but discernible scale, this kind of tourism has started to appear in Algeria. An increasing number of families and individuals are growing olive trees and making olive oil. However, this expansion is beset by issues of inadequate planning and organization. Our research paper examines the distribution of olive trees and how they produce the best olive

oils. It uses the Baghlia mill for extra virgin olive oil production as a case study to emphasize the significance of these agricultural endeavors, which may help Algeria's agritourism industry grow.

Algeria has a considerable edge in drought adaptation thanks to the more than 48 types of olive trees that are currently listed in the official catalog. A number of olive varieties, including Chemlal, Azzeradj, Sigoise, and Limli, are grown in the Province of Boumerdes (Benadjal et al., 2022). With over 45% of Algeria's olive history coming from Chemlal, it is the most prevalent local variety. The self-pollinating Sigoise cultivar, which serves several purposes and accounts for 20% of Algeria's national olive orchards, is mostly grown in western Algeria. Chemlal is frequently paired with Bouchouk and Azzeradj, both of which are used for oil production and canning, and Azzeradj improves pollination. Limli, which is grown in the western Soummam region, makes about 8% of the country's olive orchards. Rouget de Mitidja, on the other hand, is cultivated mainly for oil production in the foothills of the Atlas Mountains and the Mitidja plain (Bachouche et al., 2024; Rouibah & Belabbas, 2022). Rouget de Guelma and Blanquette de Guelma are also common in the country's eastern regions, frequently living together in the same space. These types are vital to Algerian agriculture, helping to increase both the sustainability and diversity of the sector. Although agrotourism, or farm tourism, has long been a popular tourism practice in rural areas, the agrotourism offer appears relatively vague (Lesauvage, 1995). In recent years, a number of organizations associated with the agricultural world have attempted to define the issues surrounding agrotourism (Bourdeau et al., 2002), but the different perspectives held by farmers and tourism stakeholders on this same economic activity complicate any attempt to propose a synthetic and comprehensive definition of agrotourism. We also note the difficulty of characterizing the agrotourism product. Not only do the definitions used to describe agrotourism activities and products differ from one country to another, but conceptions between the agricultural and tourism communities are sometimes so divergent that it is difficult to obtain a common measure and develop a common statistical portrait of agrotourism (Marcotte et al., 2006).

Olive oil tourism is a recent type of rural tourism; hence, it remains a field of research that is still overlooked. Therefore, it is fitting to provide a quantitative overview of the literature regarding this promising area (Pato, 2024). Olive oil is not only an essential culinary element in the diet of Mediterranean countries, but it is also becoming an increasingly attractive element from a tourism perspective. The olive grove landscape, ancient olive trees, and oil mills are increasingly attracting tourists eager to experience this type of tourism (Dancausa Millán & Millán Vázquez de la Torre, 2024).

Algerian olive growing is considered today as a strategic sector, it plays a very important role in the agricultural sector and has participated in the survival economy of communities over time (Sahli, 2022).

Algeria is one of the countries where the olive oil production is particularly increased in the last ten years, thanks to two agricultural renewal programs, over the 2006–2008 and 2009–2014 periods, allowing producers to update their production tools. In these years, cultivation zones passed from 165,000 to 500,000 ha.

Table 1. Oil production in Boumerdes and Algeria (2002-2021) (Source: Ministry of Agriculture and Rural Development, Directorate of Agricultural Statistics and Information Systems, Agricultural Statistics, "Areas and Production", Series "B" 2002-2021)

Year	Local and National Scale	Oil Production (Hl)	Year	Local and National Scale	Oil Production (Hl)
2002	Boumerdes	5,250	2012	Boumerdes	6,655
	Total Algeria	256,000		Total Algeria	429,980
2003	Boumerdes	6,150	2013	Boumerdes	30,804
	Total Algeria	165,780		Total Algeria	715,970
2004	Boumerdes	25,760	2014	Boumerdes	8,802
	Total Algeria	757,070		Total Algeria	479,700
2005	Boumerdes	25,760	2015	Boumerdes	15,403
	Total Algeria	379,170		Total Algeria	758,892
2006	Boumerdes	10,800	2016	Boumerdes	19,311
	Total Algeria	349,920		Total Algeria	889,662
2007	Boumerdes	12,040	2017	Boumerdes	9,102
	Total Algeria	238,170		Total Algeria	685,425
2008	Boumerdes	5,946	2018	Boumerdes	23,603
	Total Algeria	261,260		Total Algeria	898,375
2009	Boumerdes	27,612	2019	Boumerdes	5,688
	Total Algeria	669,765		Total Algeria	1,053,234
2010	Boumerdes	3,548	2020	Boumerdes	30,797
	Total Algeria	288,860		Total Algeria	1,371,317
2011	Boumerdes	30,347	2021	Boumerdes	10,834
	Total Algeria	728,050		Total Algeria	783,720

Table 1 and Figure 1 illustrate the trends in olive oil production in the Province of Boumerdes between 2002 and 2021. The analysis reveals considerable fluctuations over this period. While certain years recorded high levels of production, others showed a marked decline. At the national level, olive oil production also experienced similar variability, indicating broader challenges within Algeria's olive-growing sector. In Boumerdes specifically, the period from 2004 to 2011 was marked by a general upward trend, with significant increases observed in 2004, 2009, and particularly in 2011, which recorded the highest output at 30,347 hectoliters. This indicates improvements in production conditions or agricultural techniques. However, in some years, such as 2010, the Province registered its lowest production level (3,548 hectoliters), possibly due to unfavorable climatic conditions or issues in local agricultural resource management. At the national level, there was a consistent rise in production from 2009 to 2020, especially in 2020, when Algeria recorded its highest production level (1,371,317 hectoliters).

However, Algeria also experienced some declines, particularly in 2003 and 2014, reflecting production variability due to environmental and economic challenges. Overall, it can be concluded that production in Boumerdes is influenced by climate changes and local policies, while national production reflects a general improvement in the agricultural sector despite fluctuations over the years. The objective of this study is to explore the potential of the agricultural sector for rural development, focusing on Agro-tourism as a means to integrate sectors for sustainable development and economic growth in Algeria. More specifically, this research highlights the reality of olive production and olive tourism in the Wilaya of Boumerdes, using the Baghlia oil press as an example of a modern mill that can contribute to the dynamics of rural areas. The study thus aims to revive this activity to promote the development of the agricultural sector and rural territories.

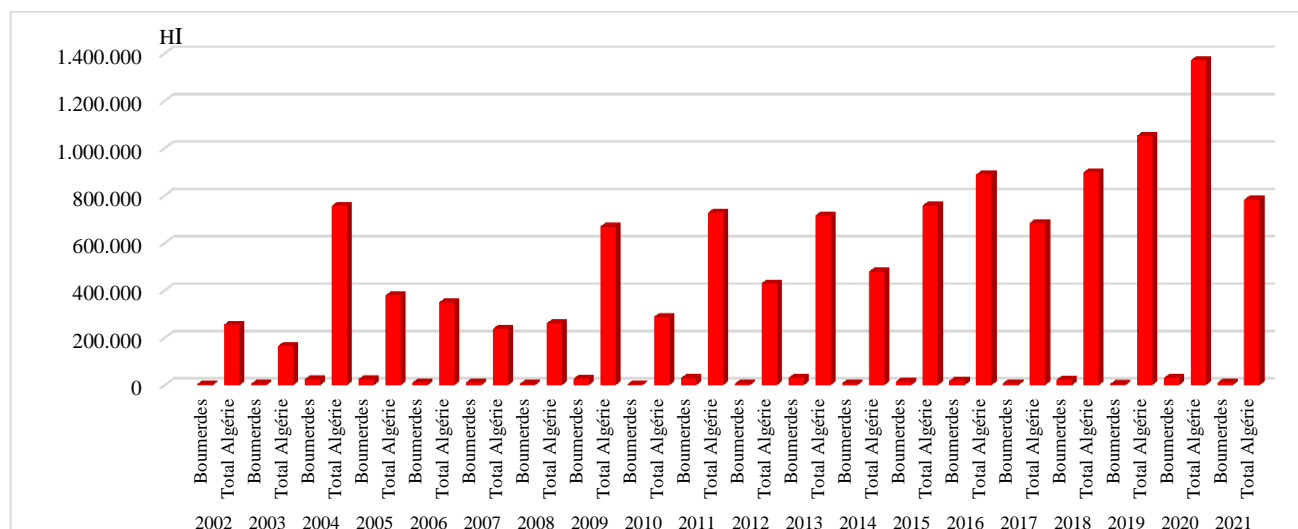


Figure 1. Olive oil production in the Municipalities of Boumerdes and Algeria (2002-2021) (Source: MADRP, 2024)

## MATERIALS AND METHODS

The study was based on descriptive and analytical methods to project design models corresponding to natural tourist sites.

After examining the potential of olive and olive oil mills in Boumerdes, in coordination with representatives from tourism and agriculture, we identified significant opportunities for investment in tourist facilities and attractions within the Baghlia oil mill. Many tourist points and suggestions were discussed and approved to reveal the true potential of this exceptional oil mill and the various capacities it can offer to tourism in the region.

We utilized the ArcGIS program for mapping the different sites and locations, providing detailed visual representations of the area's tourism potential. Additionally, field data was collected through visits to the Ministry of Agriculture, the National Institute for Fruit Trees, and Kiard Olive Oil Press in Baghlia. Geographic Information Systems (GIS) were used to map and analyze the collected data. The study highlights the promising potential of Agro-tourism in Algeria despite limited research in this field, stressing the need for further studies to support and enhance this sector's role in the local economy (Figure 2).

### Presentation of study area

The province of Boumerdes is a coastal city in central Algeria, covering an area of 1,456.16 km<sup>2</sup> with a 100 km coastline. Province of Boumerdes is bounded to the north by the Mediterranean Sea; to the south by the province of Bouira; to the west by the provinces of Algiers and Bouira; and to the east by the province of Tizi Ouzou (Figure 3 and 4). Its topography consists of plains and valleys in the north, hills and plateaus in the central part and mountains in the south. Boumerdes has a Mediterranean climate, with cold, wet winters and hot, dry summers.

Rainfall is irregular, varying between 500 and 1,300 mm/year. The Dellys region receives more rainfall than the rest of the province, with an average of 900 mm/year.

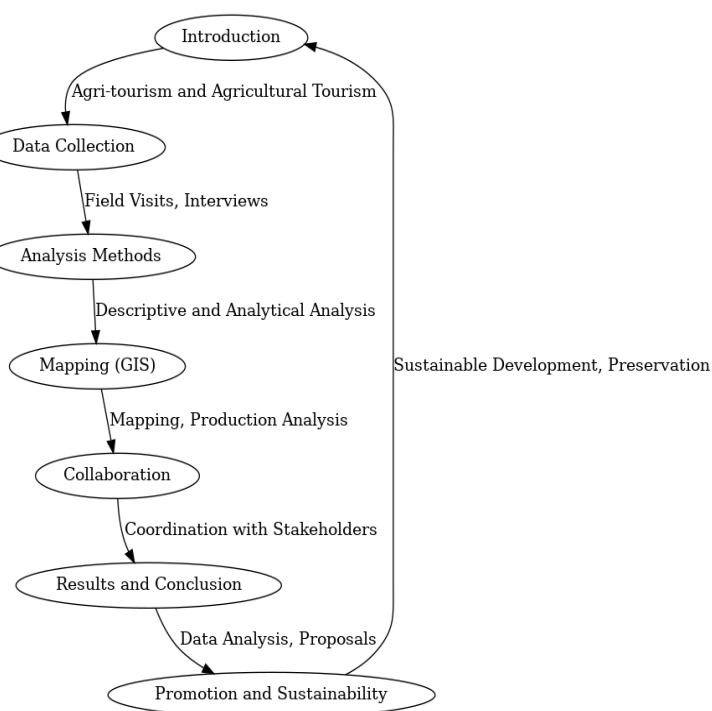


Figure 2. Framework for Promoting Agro-tourism and Agricultural Sustainability (Source: Author, 2025)



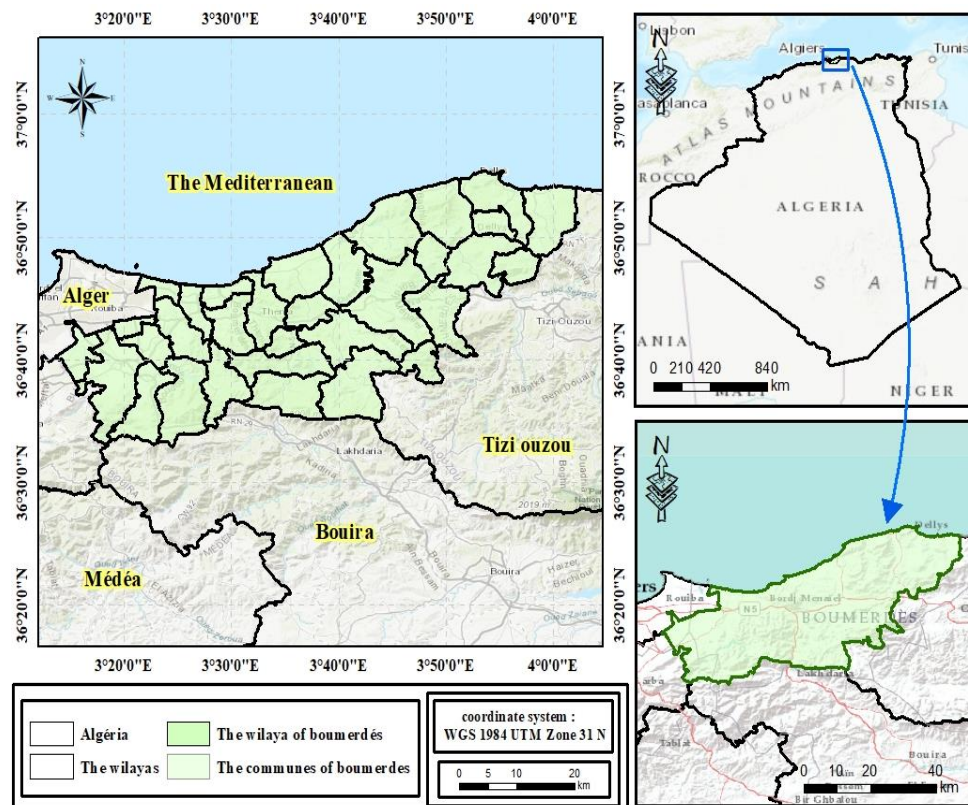


Figure 3. Geographical location of province of Boumerdes (Source: Authors, 2024)

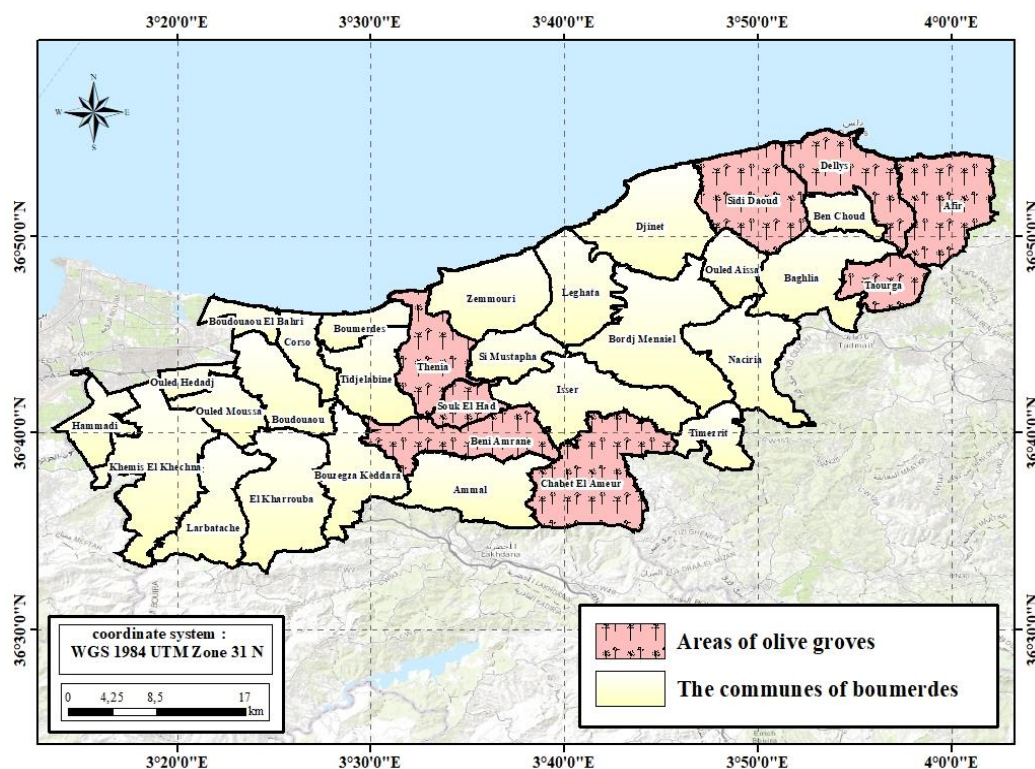


Figure 4. Repartition of olive groves in the province of Boumerdes (Source: Authors, 2024)

## RESULTS

### Cultivation of olive oil in Boumerdes

The true origin of the olive is not known but is speculated to be Syria or possibly sub-Saharan Africa. For more than 6000 years, the cultivated olive has developed alongside Mediterranean civilizations and is now commercially produced on more than (9.4 million ha) in the Mediterranean basin (Vossen, 2007). The area of olive trees in the province of Boumerdes has increased by 46% over the last two decades. At present, the province's olive orchard covers 8,770 ha, compared with 5,700 ha in 2000, representing an increase of 46% (DSA, 2023). This area includes no fewer than 1,046,000 olive trees,

88% of which are productive, spread over family orchards with an average of 110 olive trees per orchard. The increase in the surface area of the local olive orchard has been achieved thanks to government programs aimed at diversifying agricultural production and reducing vineyard production, which accounts for almost 40% of the province's utilised agricultural area (UAA). The province's olive groves are concentrated mainly in the mountainous areas of Beni Amrane, but also in the regions of Thenia, Afir, Taouergua, Souk El-Had, Chaâbat El Aneur, Dellys and Sidi Daoud (Figure 4). Development programs implemented in the sector have included the reforestation and rehabilitation of 1,000 hectares annually as compensation for farmers affected by fires and adverse weather conditions. During the same period, 269 hectares of olive trees were also planted as part of local initiatives. From 2016, olive cultivation was expanded, reaching 8,870 hectares in 2022, see Figure 5.

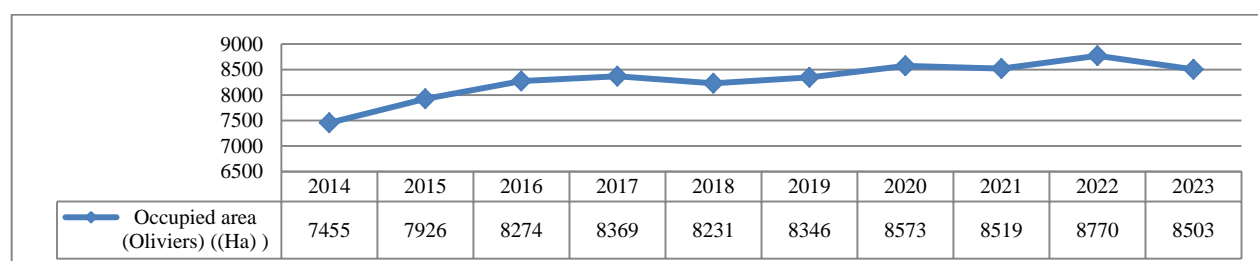


Figure 5. The area occupied by olives (Ha) in Boumerdes (Source: Authors based to Agricultural Directorate of Boumerdes, 2023)

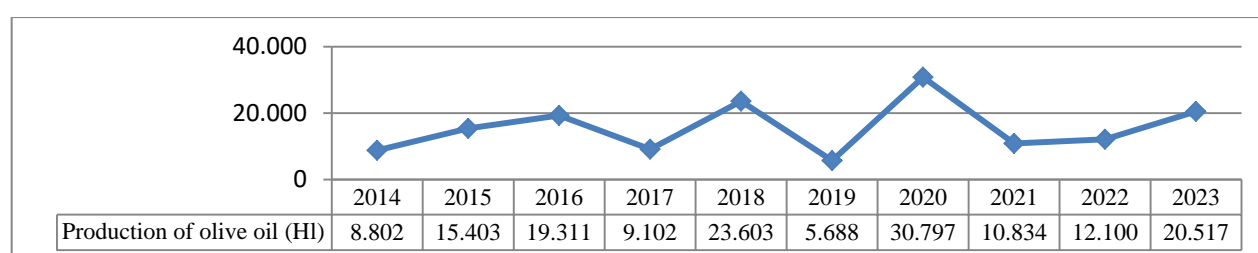


Figure 6. Production of olive oil HL in Boumerdes (Source: DSA Boumerdes, 2023)

According to the Agricultural Directorate of Boumerdes (2023), the area dedicated to fruit trees exceeded 20% of the total agricultural land. On the other hand, the total area of olive trees constitutes more than half of the area dedicated to fruit trees, highlighting the significant importance of this agricultural crop in the mentioned years. This is further evidenced by the notable increase in olive cultivation in recent years. After 2014, the province of Boumerdes has produced an average of 10,000 hectoliters of olive oil annually. This increase in oil production is the result of the expansion in the cultivation of olives intended for pressing. Consequently, production reached 30,797 hectoliters in 2020 (Figure 6).

The above (Table 2) and (Figure 4) indicate that there is a valuable production of oil olive in the last years with certain perturbations; the last one is controlled by several factors, the most important of which is the natural factor.

Table 2. Olive oil production in the Province of Boumerdes (Production Olives to oil) (Source: DSA Boumerdes, 2023)

Municipality	Total (Qx)	Municipality	Total (Qx)
Dellys	630	B-menaïel	2,275.2
Thenia	3,064	Boudouaou el bahri	0
Ben choud	390	Cap djinet	995.52
Souk elhad	3,561.5	O-heddadj	0
Afir	10,230	Zemmouri	1,126.65
Beni amrane	23,432	Kharrouba	4,284
Baghlia	4,230.09	Legata	1,361.50
Ammal	10,065	Keddara	4,500
Sidi daoud	3,130.65	Isser	5,641
Boumerdes	153	Kh el khechna	2,923
Taourga	17,474.40	Chabet	37,978.75
Tidjelabine	833	Hammadi	109
Naciria	1,800	Si mustapha	3,837.50
Corso	272	O-moussa	158
O-aissa	3,275	Timezrit	9,790
Boudouaou	414	Arbatache	2,140.5
<b>Total province</b>			<b>160,075.26</b>

The data shows that the municipality of Chabet leads the list of municipalities in terms of olive oil production, with production quantities reaching 37,978.75 tons. This reflects a high production capacity for this area compared to other municipalities. It is followed by the municipality of Beni Amrane with a production of 23,432 tons, and then the municipality of Taourga, which produced 17,474.40 tons. On the other hand, there are other municipalities showing very low production levels, such as Boumerdes, which recorded only 153 tons, and O-Moussa with 158 tons, while municipalities like Boudouaou El Bahri and O-Heddadj reported no production. These large differences in production levels

indicate disparities in production capacity between municipalities, with some being able to exploit their agricultural resources more effectively. The total olive oil production in the Province reached 160,075.26 tons, highlighting the large volume of production but also emphasizing the need to improve production practices in municipalities with low output (Figure 7).

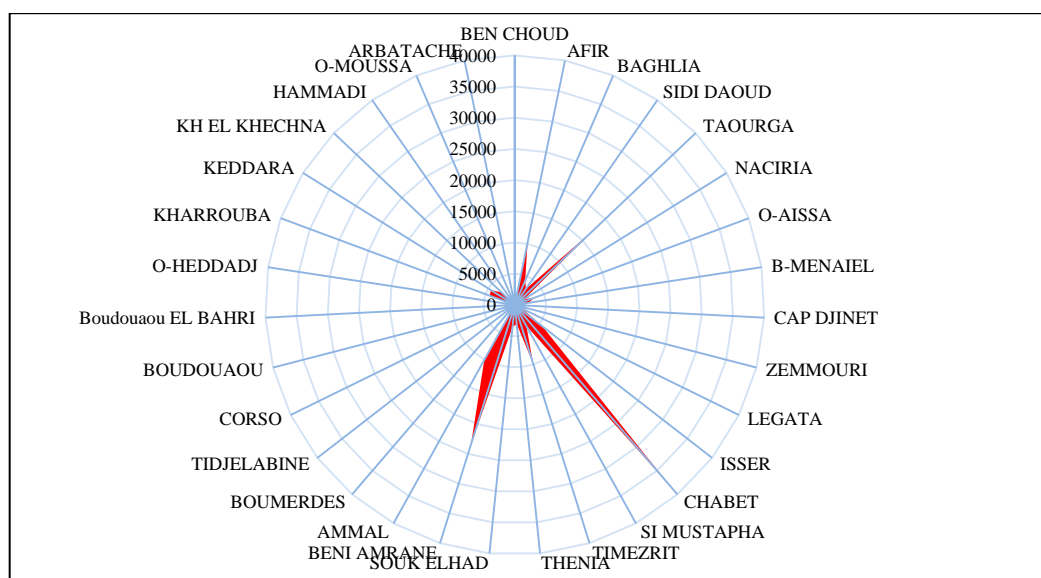


Figure 7. Olive oil production in the Province of Boumerdes region (Source: DSA Boumerdes, 2023)

### Olive oil mills of Boumerdes

The province of Boumerdes is keen to promote the development of rural tourism in the coming years. To this end, the local branch of the pilot action program for agricultural and rural development in Algeria is banking on the “Olive Road” project. This tourist trail through the countryside will encompass several communes boumerdes. The aim of this touristic route is not only to promote olive oil, the region's emblematic product, but also to promote handicrafts, agricultural and gastronomic products based around the olive tree, which can be described as “organic” and “authentic”. The province of Boumerdes encounters nine oil mills throughout its territory, just five are functional till today (Table 3). Table 3 reveals the different oil mills the province of Boumerdes englobes, where the mill of Behglia is among the oldest ones in the region, besides it takes the top in the quantity of olives crushed and the production where it produces 400 m<sup>3</sup>/year.

Table 3. Olive oil mills in the province of Boumerdes (Source: DSA Boumerdes, 2023)

Commune	Name	Year of start-up	Quantity of olives crushed	Production (m <sup>3</sup> /year)
Taouarga	Laroum hocine	2010	70-80 Q/D	40
	Hadjadj boualem	2021	250 Q/D	100
	Amroun mohamed	1995	30-40 Q/D	9
	Sadaoui hocine	2003	80 Q/D	15
Baghlia	Sarl ets kiared	1997	4000 Q/D	400

### Olive oil mill of Baghlia a step toward building a tourist route

Spending a day among olive trees, observing how oil is produced or discovering certain types of olives? That's what we call olive tourism. This tourism seeks to familiarize you with all the different characteristics, qualities and processes of producing a healthy product like olive oil. The olive oil mill of Baghlia was established in 1997 and is a family-owned press, and it used to press olives for the benefit of the region's customers (the owners of olive groves in the vicinity of the press bring their own olives to be pressed in the press. What should be noted here is that the quality of the oil produced was not good because of the poor quality of the olives loaded for pressing due to transportation conditions and harvesting method where most of the yield is destroyed) The press did not market the oil, but it was delivered to these customers, the pressing process was modern, the problem was in the quality of the oil (Figure 8 and 9).

- In 2009, the equipment was replaced with new, more advanced equipment imported from Italy, and a separate pressing hall, storage and packaging hall was built (i.e. an expansion)

- In 2009, an olive shop was built, which led to changing the strategy of the press to a commercial press, i.e. pressing and selling oil, and taking into account the type of oil in terms of quality (cold pressing, the fruits that are pressed are of good quality and in good condition and go through all stages of modern pressing, washing, sorting and purification, i.e. all stages until they come out in the form of extra virgin oil vierge et extra vierge). The “Baghlia” brand has also won some 30 medals at international tasting competitions over the last ten years, including 10 gold medals and the rest in silver and bronze. The most important of these distinctions is represented by the bronze medal won at the AVPA-Paris 2019 international competition for the world's best olive oils, and the gold medal obtained at the Athens (Greece) international olive oil competition in 2020. The same oil mill also won gold medals at the Japan 2021 international competition, the Dubai 2022 international competition, London 2021 competition and the international Japan Olive Oil Prize.



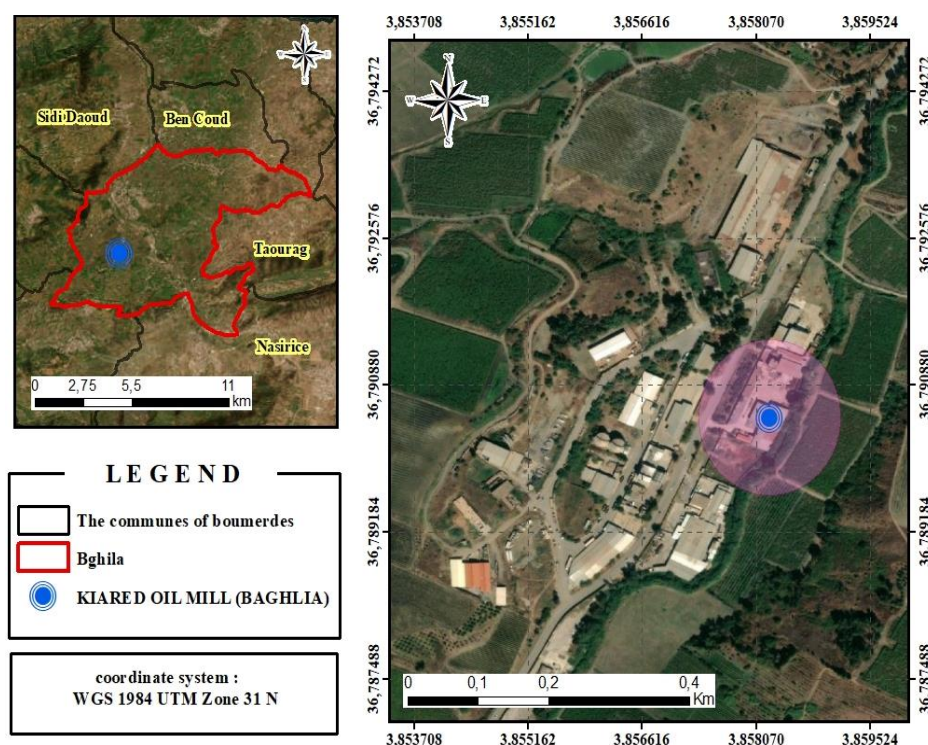


Figure 8. Geographical location Kiared oil mill of Baghlia (Source: Author, 2024)



Figure 9. Olive oil mill Baghlia Boumerdes (Source: Author, 2024)

### The contribution of olive oil mill tourism to the regional development of Boumerdes

According to Stewart et al. (2008) we can point out that the increasing importance of gastronomy suggests and promotes the idea that knowledge of agricultural products can be, and often is, the main attraction to visit a particular region and not necessarily a second (or complementary) motivation of a trip. In this sense, we must remember that gastronomy reflects the historical, social, cultural and environmental heritage of peoples, i.e. the idiosyncrasy of its inhabitants (Brunori et al., 2001). Olive oil mills and olive groves not only offer environmental and natural design with their vast spaces of trees, but also provide a livelihood for a large number of families dedicated to olive oil production.

- Promoting healthy culinary practices by organizing oil-tasting festivals (food tourism).
- Sustainable Tourism: Oil-tourism offers the possibility of enjoying the resources that the earth offers us and creating tourist activities of an environmentally responsible agriculture such as that of the traditional olive grove.
- Promotes Rural Tourism: Through activities in the middle of nature Knowledge of an ancestral culture: by offering guided tour to the mill not only get to know the product, but also to convey a culture forged over stories of years, the fruit of the offspring that our ancestors have passed down from father to son as a legacy.
- Opportunity to learn about the production process: During the visits the cooperative mills, present a brief tour from the field and its collection, until the olive oil is obtained and its subsequent packaging.
- Production of some soaps, salves, ointments. etc from the oil giving a path towards other bio productions. showing them in way that attracts tourists (Figure 10).
- Stops rural depopulation: encouraging tourist activities in rural areas severely affected by depopulation. through creation of small activities and jobs.
- Revival of history: there are historical olive trees that exceed more than 100 hundred years.
- Encouraging daily guided tours to the mill of Baghlia.
- Organising Olive harvesting days.





Figure 10. Exhibition of various soaps, salves, and ointments made from oil (Source: author, 2024)

A significant challenge is the seasonality of this demand, which tends to peak at certain times of the year. To counteract this phenomenon, the creation of complementary activities is suggested to enrich the oleotourism experience, such as olive oil festivals, traditional cooking workshops using olive oil, and tasting sessions led by experts. Implementing appropriate strategies in this tourism segment could help de-seasonalize demand. Throughout the year, tourists could visit oil mills, olive museums, interpretation centers, and olive landscapes, creating stable employment in rural areas and preventing the depopulation of many inland villages. Beyond its economic impact, oleotourism plays a crucial role in preserving the rural landscape and conserving sustainable agricultural practices. Olive plantation, especially in Boumerdes, are a valuable environmental resource, contributing to soil erosion mitigation, combating desertification, and protecting biodiversity. By adopting ecological and biodynamic farming practices, many producers are committed to environmental conservation, enhancing the value of olive groves not only as an economic resource but also as an ecological and cultural asset.

## DISCUSSION

The significant expansion of olive cultivation in the Boumerdes region over the past two decades, increasing from 5,700 ha in 2000 to 8,770 ha in 2022, reflects sustained efforts to diversify agricultural production and reduce reliance on vineyards. This growth has been supported by government programs focused on land rehabilitation and assistance to farmers affected by fires and unfavorable weather conditions. The olive groves, concentrated in mountainous areas, play a key role in local economic development. The increase in cultivated areas has been accompanied by a notable rise in olive oil production, reaching 30,797 hectoliters in 2020. However, this production has shown fluctuations due to natural conditions, highlighting the need for better agricultural risk management. The region has nine olive oil mills, five of which are operational.

Among them, the Baghlia mill stands out for its high production capacity (400 m<sup>3</sup>/year) and modernized equipment. This mill has transitioned into a commercial press, producing high-quality virgin and extra-virgin olive oil, earning several international awards. The potential for olive oil tourism is also highlighted as a lever for boosting the local economy. The "Olive Road" project aims to promote cultural and gastronomic experiences, showcasing local heritage through guided tours, festivals, and culinary workshops. This form of sustainable tourism can contribute to revitalizing rural areas, creating jobs, and preserving traditions. Initiatives such as organizing harvest days and olive oil tasting events attract visitors throughout the year, reducing dependence on seasonal demand. Additionally, the production of derivative products, such as soaps and cosmetics, provides opportunities to diversify income streams. Finally, beyond its economic impact, olive cultivation contributes to environmental protection by preventing soil erosion and preserving biodiversity. The adoption of eco-friendly farming practices enhances the value of olive groves as sustainable resources while promoting environmentally responsible agriculture.

## CONCLUSION

Olive cultivation in the Province of Boumerdès is considered a living model of sustainable agriculture that combines both economic and environmental aspects. This cultivation has proven to be not only a major source of agricultural production but also an opportunity to enhance agricultural tourism, especially through the development of "Olive tree farm tourism and olive oil mills," which contribute to agricultural development, stimulate the local economy, and achieve sustainable rural development. The efforts of the government and local initiatives supporting this agriculture emphasize the importance of agricultural diversity and the transition to environmentally friendly farming methods, thereby enhancing the economic value of the region and preserving its natural heritage. Given the challenges it faces, it is crucial to continue improving agricultural practices and strengthening agricultural risk management to ensure the sustainability of production in the long term.

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