The Application of Sustainable Practices in Tourism: The Case of Olive-growing in the Region of Trás-os-Montes

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ABSTRACT
Several authors have argued that oleotourism can be associated with different niches that fall into this segment, such as gastronomic, cultural, rural, and health tourism. Furthermore, the development of activities such as oleotourism is carried out under the prism of sustainability, considering the economic, social and environmental components. This study had a double objective: to identify sustainable practices in tourism, in the case of olives, to understand better how sustainable practices contribute to the development of olive cultivation. Hence, a qualitative methodology used the MAXQDA program, consisting of a literature review and collecting preliminary information from different producers in the Trás-os-Montes region through semi-structured interviews. The results show that sustainability and tourism are intertwined in empirical contexts due to the intervention of other global institutions. The results indicate that the link between tourism and olive grove practices is important and could contribute to regional development. Also, sustainable practices are important for numerous reasons. It is impossible to streamline and develop an activity without considering its sustainability.

KEYWORDS

ARTICLE HISTORY
Received 15 June 2022 Accepted 26 November 2022
1. Introduction

The new attitudes and motivations that tourists experience today mark the emergence of new tourist typologies that respond to these new needs. Various authors have argued that oleotourism can be associated with rural, nature-based, or gastronomic tourism. Furthermore, it also blends with cultural and health tourism and can be framed as thematic tourism, helping to generate sales of agri-food products linked to this activity. Different niches fit into this segment (Murgado, 2013; Orgaz-Agüera et al., 2017; Parrilla-González et al., 2020).

In this sense, this emergence of activities is increasingly framed in rural development areas, this migration being the main tourist activity for the area’s socio-economic development. The development of activities such as oleotourism or gastronomic tourism is carried out under the prism of sustainability, considering the economic, social and environmental components (Moral-Cuadra et al., 2020).

This link between tourism and the context in which olive activities are oriented is based on sustainability criteria. This viewpoint has been analysed and developed worldwide, as seen in the Universal Agenda for Sustainability 2030 (Tregua et al., 2018).

In recent years, the entire community has paid attention to the environmental emergency, and tourism activities have begun to be considered as potentially harmful to the environment. Adopting a new approach is necessary since the concept of sustainability and tourism initiatives as a unique way to develop an eco-friendly form of tourism (Mowforth & Munt, 2015).

Considering this, the present study aimed to respond to the need to study the application of sustainable practices in the development of the olive groves of Trás-os-Montes, understanding their implication for oleotourism and their management.

Thus, in this perspective, this study had a double objective: on the one hand, to identify sustainable practices in tourism, in the case of olive; on the other hand, to contribute to a better understanding of how sustainable practices contribute to the development of olive growing. To achieve these objectives, the case of olive cultivation has been analysed in a Portuguese region, Trás-os-Montes. A qualitative methodology has been used, comprising a literature review and collecting preliminary information from different producers through semi-structured interviews. The study and analysis of these interviews were supported by the qualitative studies programme MAXQDA. The data collected contributes to the development and discussion of intervention proposals intended to stimulate the implementation of sustainable olive-growing practices.

The results of this study attempt, on the one hand, to make a brief analysis of the literature and the authors’ discussion, and on the other hand, to respond to the research dimensions: characterisation and identification; the relationship between olive growing and tourism; economic development through tourism; sustainable practices, by interviewing 19 producers from the Trás-os-Montes region of Portugal.

2. Literature Review

According to studies, the term oleotourism originated in the 1980s and referred to the transformation of traditional olive oil into the form of olive oil in an attempt to boost tourism. This term is a set of tourist activities that revolve around olive oil. These activities include visits to olive groves - sometimes coinciding with the olive harvest - and olive oil mills, tasting the olive oils, and tasting typical regional dishes where olive oil is the star ingredient, along with other cultural and nature-related activities that allow visitors to engage with the environment of the region in question (Parrilla-González et al., 2020).

In 2018, a study showed some findings on oleotourism and its demand. They used different terms to define the relationship between tourism and olive oil and found that most studies have used the term oleotourism to refer to this relationship. They show that oleotourism can be an expression of sustainable gastronomic tourism since it has all the defining characteristics and serves as an effective tool for economic diversification in many olive oil-producing regions that depend on the primary sector. The results of these studies indicate that the degree of satisfaction of tourists visiting olive oil production areas is high and that olive oleotourism has a strong potential (Millán et al., 2018).
Several authors argue that oleotourism can be associated with rural, nature-based, or gastronomic tourism (Murgado, 2013; Orgaz-Agüera et al., 2017; Parrilla-González et al., 2020). In addition, it combines with cultural and health tourism and can be framed as thematic tourism, helping generate sales of agri-food products linked to this activity.

The current literature on oleotourism highlights its cultural and educational value. At the cultural level, it is a tourist practice, favouring the preservation of a unique heritage central to the social, human and cultural development of the Mediterranean peoples and which, under the pressure of globalisation and the demands of international markets, is exposed to gradual disappearance. Olive oil tourism adds value to this heritage and gives it a new commercial value, which allows it to last over time (Hernández-Mogollón et al., 2019).

From a business point of view, olive oleotourism is a way for olive oil companies to diversify their business. To this end, they should design experimental tourism products and collaborate with tourism entities in the destination, be it other olive oil mills, restaurants, or accommodation suppliers, thus facilitating the complete experience as a destination and special interest tourism. Furthermore, the companies must implement environmental conservation measures through integrated production techniques and participation in sustainable projects. The production of organic olive oils, all of which are closely aligned with olive oil, the awareness of tourists and the objective of supporting the “experience” dimension based on sustainable values (Parrilla-González et al., 2020).

Sustainability is a concept that drives actions due to the desire to counteract man’s impact and take a proactive approach to improve environmental and human conditions. It is understood that all industries are involved in this challenge to achieve these improvements. However, with the emphasis on tourism, it has been considered from a sustainability-based perspective as it concerns both traditional and new forms of tourism. The strict link between tourism and the context in which the activities are oriented draws on sustainability criteria. This viewpoint has been analysed and developed worldwide, as it is in the universal 2030 Agenda for Sustainability (Tregua et al., 2018).

The United Nations has identified the challenge of implementing sustainability in tourism, and the year 2017 has been designated the Year of Sustainable Tourism for Development. Tourism is embedded in goal number 8 of the 2030 Agenda, as it is considered one of the critical forces in achieving global economic growth; the call to action focuses on implementing new policies that promote sustainable tourism and foster job creation. These interventions should align with the objectives of creating new jobs and promoting local cultures and products (United Nations, 2017; World Farmers’ Organization, 2017).

In addition to the interest of international institutions in the links between tourism and sustainability, researchers have focused on these issues in recent years, highlighting the need to better define the role stakeholders contribute to the sustainable development of tourism (Tregua et al., 2018).

Some contributions to the topic provide evidence of the linkages between the olive oil sector and other industries, such as tourism (Souilem et al., 2017). Different opportunities arise along with the increasing trend of tourism-based initiatives concerning olive oil. The product can be considered a tool for marketing tourism. When discussing the use of natural resources as a lever to enhance economic development, it is impossible to avoid sustainability issues. Many researchers have debated the issue of the compatibility of tourism activities and olive oil production, focusing on the risks to the integrity of trees and the surrounding areas, leading in some cases to the incompatibility of these two activities.

Folgado-Fernández, Campón-Cerro and Hernández-Mogollón (2019) presented a study in which the main objective was to identify the areas for the development of “oleotourism” as a sustainable alternative for the territory based on the profile of the tourists. This study proves the importance and interest in creating a link between the territory, the experiences and the quality of food produced there. They assume that local quality products can find a new marketing channel with their sales to tourists during their visit to the destination and when they return to their places of origin.

Other studies also add the opportunities that may arise from merging these two activities, stating that tourism-oriented activities can be carried out alongside agriculture and even create new benefits for the local area (Flanigan et al., 2015).

In this regard, Karray (2006) described tourism as the key instrument for developing the olive oil industry, as the integration of activities can promote a considerable increase in exports.
From another point of view, other contributions point out that farms are increasingly considered a type of accommodation that has developed alongside traditional options such as hotels or bed and breakfasts (Tregua et al., 2018).

The consumption and purchase of olive oil in the areas where it is produced would lead to internal consumption, which would imply the socio-economic development of the territory and, at the same time, the creation of wealth and the resulting added value in the local territory. Furthermore, developing local companies is the key to establishing a business network that will create wealth and value, which is already being done in other rural areas scattered around the world (Moral-Cuadra et al., 2020).

In the Mediterranean area, olive growing is of great importance. The olive tree is inextricably linked from antiquity to the present day with this region’s culture, nutrition, and economy. Therefore, being selected for cultivation requires knowledge of environmental conditions and the dietary needs of human beings. In addition, soil conservation for olive cultivation contributes to the sustainability of natural resources (Loumou & Giourga, 2003).

3. Materials and Methods

Qualitative research methods and techniques have specific functions in the context of academic research because they are the ones that least miss the complex, unusual, innovative, little studied, unknown or repressed aspects of the life of societies, proving to be favourable to the originality of investigations (Ribeiro, 2018). In their different forms, interview methods are distinguished by their application in communication and human interaction processes, establishing the principle of exchanging ideas through open questions and reactions. The exploratory interviews aim this exchange around their answers without excluding possible parallel developments (Quivy & Campenhoudt, 1995). The interviews correspond to the contact process between interviewer and interviewee, enabling the former to adopt a set of questions and ask for additional information whenever they consider it relevant. This form of data collection allows using an interview script containing the questions and the sequence to ask the interviewee. Depending on the degree of freedom granted to the interviewee, they can be classified from direct to structured (Coutinho, 2020).

From this perspective, this article aims to respond to the objectives through semi-structured interviews with olive groves producers in the region under study.

3.1 Study Site

The region of Trás-os-Montes and Alto Douro is a historical province of Portugal, with boundaries and attributions that have varied throughout history but roughly corresponded to the current districts of Vila Real and Bragança and part of the districts of Viseu and Guarda. The region called Alto Trás-os-Montes comprises only a part, though the most significant part, of the inland province of the Beyond Douro, as shown in Figure 1.

**Figure 1.** Location of Trás-os-Montes region in the North of Portugal
With its geographical characteristics, the region of Alto Trás-os-Montes is part of a larger whole, the province of Trás-os-Montes. An extreme climate characterises a region isolated by its mountains and deep valleys, the soil, as a rule not very fertile (Taborda, 2011). The region has always been divided into two climatic zones: “Terra Fria Transmontana” and “Terra Quente Transmontana”. This region stands out mainly for its contrasting landscapes and investment in endogenous products. The production of olive is one of its strong products. To the north is the Montesinho Natural Park, to the east is the International Douro Natural Park, which borders Spain, to the northwest is the Peneda-Gerês National Park, to the west are the Marão and Alvão mountains and to the south is the Alto Douro Wine Region, declared a World Heritage Site by UNESCO on 14 December 2001. The northeast of the region was declared a biosphere reserve by UNESCO under Meseta Ibérica (Neves et al., 2009).

### 3.2 Conducting the Data Collection

This study was done in two phases. In the first phase, the existing literature on the themes was consulted, using the Scopus platform, searching for some research equations. Specifically, the articles on sustainability and olive growing, sustainable practices in tourism or olive growing, and growth and development of olive growing were analysed. In a second phase, interviews were conducted with producers and mill owners to respond to this study's objectives, as shown in Figure 2. The study and analysis of these interviews were supported by the qualitative studies programme MAXQDA. This program is academic software for qualitative data analysis and mixed methods research and is available for Windows and Mac operating systems. This program also assists in analysing all types of unstructured or semi-structured data, such as content analysis, i.e. interviews.

**Figure 2. Conceptual Framework**

<table>
<thead>
<tr>
<th>PHASE ONE</th>
<th>Scopus search</th>
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<tbody>
<tr>
<td></td>
<td>“Sustainability” AND “Olive Growing”</td>
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<td></td>
<td>“Sustainable practices” AND “Olive” OR “Tourism”</td>
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<tr>
<td>PHASE TWO</td>
<td>Semi-structured interviews - MAXQDA Analysis</td>
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<td>Characterisation and identification; relation between olive-growing and tourism; economic development through tourism; sustainable practices.</td>
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Given the objectives under study, the first phase analysed 73 open-access articles in English on sustainable practices and some articles on sustainability and olive growing.

For the second phase of the study, 19 producers were interviewed, aimed to respond to the research dimensions: characterisation and identification; the relation between olive-growing and tourism; economic development through tourism; sustainable practices.

These research dimensions aimed to respond to the objectives: (1) to identify sustainable practices in tourism, in the case of the olive tree; (2) to contribute to a better understanding of how sustainable practices contribute to the development of the olive tree culture.

In the first part of the interview, we sought to distinguish and recognise the producers interviewed through questions such as age, municipality of residence and when and how the opportunity arose to develop activity in the sector. Then, we studied the relationship between olive growing and tourism through questions such as: if they had ever received tourists to visit their olive grove, if yes, what was the origin of these visitors, if there is interest on the part of producers in receiving tourists to watch and participate in the activity; if they considered that their olive grove has infrastructures and accessibility; and if they consider important the tourist dynamic (visit, participation and interaction of people) for the development
of their activity. For the study of the aspect of economic development through tourism, questions were asked, such as: whether they understood that tourism practices contribute to the development of the olive tree row; what other benefits could be associated with this development in the sector; and in the producers’ opinion, how could this endogenous product be sold as a tourism product. Finally, discussing the topics associated with sustainable practices, they were asked: if they considered sustainable practices in their olive production, if so, which practices they used, and if they considered it important, nowadays, to develop practices with sustainability in mind while trying to justify this practice. After collecting this information and studying the questions obtained by the 19 producers, some relevant results were analysed.

4. Results

From the first phase of the study, according to the research highlighted above, the literature on oleotourism considers the most contributions concerning the link between olive oil production and the tourism industry. In synthesis, tourism can be developed sustainability if people experience a context through visits and tourism. Sustainability and tourism are intertwined in empirical contexts due to the intervention of other world institutions. Already UNESCO had highlighted the role of culture and natural elements in favouring the achievement of greater sustainability. Similarly, the World Farmers’ Organisation took this opportunity to take into account and consider sustainability from a global perspective and to be the way to support the development of farmers who are still struggling for economic sustainability. As a result, tourism-oriented activities in a rural context relate to issues such as sustainable experience, impact on the natural context, and barriers to development. Consequently, even environmental sustainability is considered, as the World Tourism Organisation proposed measures for sustainable tourism. In addition, social sustainability was considered as tourism puts local populations at risk, or in some cases, tourism could favour the achievement of more viable conditions for local inhabitants.

The development of oleotourism as a new form of tourism should be achieved through the involvement of more actors, creating a shared sense of participation to spread knowledge about oleotourism, and sensitising local actors to the relevance of this business concerning the local context. Tourism development can never go without moving in parallel with sustainability.

During the study's second phase, 19 producers were interviewed to answer some topics, such as characterisation and identification, the relationship between olive growing and tourism, economic development through tourism, and sustainable practices.

The identification and characterisation of the interviewees, the age (Figure 3), and the location of residence of the producers (Figure 4) were verified, as well as when and how the opportunity arose to develop activity in the sector.

Figure 3. Age of the Producers Interviewed

![Age Distribution](source.png)

This analysis highlights that the majority of respondents are aged between 40 - 59 years, which means that they are working-age adults. Next, 37% of the respondents, producers, were interviewed in their 60s
or older, many of whom are already retired. It should also be noted that 21% of the producers interviewed are young and are starting their professional activity with the olive branch.

Regarding the respondents’ local residence, the following graph (Figure 4) highlights the different municipalities of the Trás-os-Montes and Alto Douro regions. This graph shows that most producers belong to the municipality of Macedo de Cavaleiros (n=12). At the same time, in a smaller percentage, there are producers from the municipality of Mirandela (n=5), one producer from Bragança and another from Valpaços. All these municipalities belong to the district of Bragança and Vila Real, both belonging to the region of Trás-os-Montes and Alto Douro.

Figure 4. Local Residence of the Producers

Regarding the origin of their activities, all the producers interviewed assume that they started their professional careers linked to olive growing due to family legacies and family properties.

The study about the relationship between olive cultivation and tourism studied whether the producers had ever received people visiting their olive grove. If yes, which type of activities were carried out, and if not, it was questioned if it was interested in receiving people to assist and participate in the activity during the production and harvest process. To complement this dimension, the study also tried to understand if the producers interviewed considered their olive groves had infrastructures and accessibility to receive visitors. In addition, if they thought that the tourist dynamic (visit, participation and interaction of people) was necessary for developing their activity. From this analysis, it was observed that most respondents answered no to the question of whether they have ever received tourists to visit their olive grove, as shown in Figure 5.

Figure 5. Answer to the Question of whether the Respondents received Tourists in their Olive Mills

The producers who answered yes explained that their visitors were national and international tourists from the United Kingdom, Spain, and France. A small proportion of those who answered no assume that they would be happy to receive tourists in the future. In contrast, others say that the space does not have sufficient infrastructure and accessibility to receive visits to their olive groves.

When asked if they considered the tourism dynamics (visit, participation and interaction of people) im-
portant for developing their activity, most respondents said yes, highlighting that it is important to share information because it is increasingly important to contribute to the development of the olive groves. In addition, some of the producers highlighted the development of new technologies as a support to the tourist dynamics in the olive sector, as a focus and an important point.

Regarding the economic development through tourism, the questions that were asked approached the understanding of the tourism practices as a contributor to the development of the olive grove, what other benefits could be associated with this development in the sector and what was the opinion of the respondents about the sale of the olive grove sector as a tourist product. Specifically, from the analysis of the results obtained, it was found that tourism practices contribute to the development of the olive sector, highlighting that tourism is always important for all sectors.

When asked what other benefits might be associated with this development in the sector, the producers interviewed assumed that local and rural tourism can benefit a lot. The development of the olive sector can improve the agricultural situation, and the more knowledge there is, the more opportunities there are. They also emphasise that the greater number of visitors, a more significant commercial business and the incentive to develop the agricultural activity further are significant. Nowadays, the population dedicated to agriculture is older, and young people must have more interest and motivation for agriculture. Here innovation can help and facilitate the process and give a different image, alleviating the physical burden and facilitating the process. To make available the product that is produced from the olive groves, it would be very important to work on other dynamics, such as tourism and marketing.

Regarding how this endogenous product could be sold as a tourist product, the producers state that implementing group trips, such as a holiday package, visits to farms, olive groves and mills, and the zeitgeist production process itself could be the most vital selling points. They add that participation in dissemination events and fairs and seeking customers outside our region are the current focuses of the producers. The existence of a dynamic olive oil route would also be an important topic. For Trás-os-Montes, this dynamisation would be very important, also to recover the production that has been lost over the years.

Finally, regarding the study of sustainable practices, the questions about sustainable practices in olive production and the current importance of developing practices with sustainability in mind were highlighted. It was emphasised that all the producers interviewed assume that they seek sustainable practices in their production. They emphasise that they do not use chemicals and seek the most organic production possible. Generally, they use the leftovers to burn in winter to heat the house, and if they do not use them, they let the soil be fertile. To fight pests, they use more sustainable ways (for example, codfish water to scare off insects). The results indicate that all the interviewees agree with the current importance of developing practices with sustainability in mind. Many producers assume that, besides the high price of olive, it is necessary to care and worry about the environment because future generations depend on it.

5. Discussion

In response to the objectives under study, in the literature review, it was understood that sustainability is a concept that drives actions to improve environmental and human conditions. All industries are involved in this challenge to achieve these improvements (Tregua et al., 2018). From the discussion of results, it was observed that sustainability and tourism are intertwined in empirical contexts due to the intervention of other world institutions. Tourism-oriented activities in a rural context relate to sustainable experience, impact on the natural context, and barriers to development. Social sustainability was considered as tourism puts local populations at risk, or in some cases, tourism could favour the achievement of more viable conditions for local inhabitants.

The development of oleotourism as a new form of tourism should be achieved through the involvement of more actors, creating a shared sense of participation to spread knowledge about oleotourism, and sensitising local actors to the relevance of this business concerning the local context. Reinforcing the perspective that in organic olive oil production, the awareness of tourists and the objective of supporting the “experience” dimension based on sustainable values are fundamental (Parrilla-González et al., 2020).

From an entrepreneurial perspective, the olive oil tourism relationship allows olive oil companies
to diversify their business. To do so, they should design experiential tourism products and collaborate with tourism entities in the destination, whether these are other mills, restaurants or accommodation providers, thus facilitating the whole experience as a destination and special interest tourism (Parrilla-González et al., 2020). The producers interviewed believe that the tourist activities associated with its olive oil production are essential and could make the region very dynamic. Most of those not used to receiving tourists in their productions assume that it would be fascinating to do so in the future and that they are willing to have this dynamic and interactive.

The study by Millán et al. (2018) shows that oleotourism can be an expression of sustainable gastronomic tourism since it has all the characteristics that define it and serves as an effective instrument of economic diversification in many olive oil-producing regions that depend on the primary sector. From this perspective, economic development through tourism is also understood as a tourist product associated with tourism, and olive groves can create significant regional benefits. In particular, from the analysis of the results obtained, it was found that tourism practices contribute to the development of the olive sector, stressing that tourism is always important for all sectors.

In the literature, different opportunities are emerging along with the growing trend of tourism-based initiatives related to olive oil. The product can be considered a tourism marketing tool (Souilem et al., 2017). The producers add that selling and marketing the olive groves as a tourism product could be done through a partnership with tour operators. As in other regions with other types of endogenous products, tourism sales strategies could be created, as well as events and activities associated with the olive groves and olive oil production.

From the perspective that in organic olive oil production, tourism and the objective of supporting the “experience” dimension based on sustainable values are fundamental (Parrilla-González et al., 2020), this study verified that the producers interviewed do not use chemicals and seek the most organic production possible.

The results indicate that both in the literature review and the interviews conducted, the current importance of developing sustainable practices associated with oleotourism is present and tends to increase.

6. Conclusion

This study sought to answer the need to study the application of sustainable practices in the development of olive groves in Trás-os-Montes, understanding their implications for olive tourism and its management.

In response to the objectives of identifying sustainable practices in tourism, in the case of olive growing, and contributing to a better understanding of how sustainable practices contribute to the development of olive growing, a qualitative study was carried out in the Portuguese region, Trás-os-Montes. This study reviewed the literature and collected preliminary information from different producers through semi-structured interviews.

For this, in the first phase, 73 open-access English-language articles on sustainable practices and some articles on sustainability and olive growing were analysed. In the study’s second phase, 19 producers were interviewed to respond to the research dimensions: characterisation and identification, the relationship between olive growing and tourism, economic development through tourism, and sustainable practices.

From the first phase of the study, in summary, it was understood that tourism could be developed sustainably if people experience a context through visits and tourism. Moreover, sustainability and tourism are intertwined in empirical contexts due to the intervention of other global institutions.

Given the study’s second phase, the interviews were able to answer some of the topics under study. From these interviews, it was understood that tourism practices contribute to the development of the olive sector, stressing that tourism is always important for all sectors.

Questions about sustainable practices in olive production and the current importance of developing practices with sustainability in mind were highlighted. The results indicate that all respondents agree with the current importance of developing practices with sustainability in mind. Furthermore, many producers assume that, beyond the high price of olives, it is necessary to care and worry about the environment because future generations depend on it.
The main theoretical contribution of this work is the fundamental role played by the tourism experience in the sustainable development of olive growing in the Trás-os-Montes region. On the one hand, this study contributes to expanding the literature on olive oil tourism. On the other hand, the study advances the knowledge of the main predictors of tourism and sustainable development in this context. The theoretical contributions observed in this study highlight the study of several authors who present oleotourism as a component of rural tourism based on nature or gastronomic tourism. Cultural and health tourism can be framed as thematic tourism, helping to generate sales of agri-food products linked to this activity. Companies in the sector should implement environmental conservation measures through integrated production techniques and participation in sustainable projects. Currently, the production of organic olive oils, the awareness of tourists and the objective of supporting the “experience” dimension based on sustainable values are highlighted in research trends. The study universe in tourism has been considered from a sustainability-based perspective as it concerns both traditional and new forms of tourism. The strict link between tourism and the context in which activities are oriented is based on sustainability criteria. In addition to the interest of international institutions in the links between tourism and sustainability, researchers have focused on these issues in recent years, highlighting the need to better define the role that stakeholders contribute to sustainable tourism development.

As a major limitation, this study presents some needs in applying the methodology, which recommends interviewing more producers at different times. Future studies should pursue to continue this theme, develop the sample of interviewees, and understand the reality of the impact of oleotourism in the region of Trás-os-Montes.

ACKNOWLEDGEMENTS

The authors are grateful to the UNIAG, R&D unit funded by the FCT – Portuguese Foundation for the Development of Science and Technology, Ministry of Science, Technology and Higher Education; “Project Reference: UIDB/04752/2020”; and to the project “OleaChain: Competências para a sustentabilidade e inovação da cadeia de valor do olival tradicional no Norte Interior de Portugal” (NORTE-06-3559-FSE-000188).

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