

Assessing an Eco-Destination Management Structure: A Case Study

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Abstract: Ecotourism is very important in contributing to the development of a healthier way to do tourism and, at the same time, to the wealth of a territory. This study aims to assess a relevant case study – Peneda-Gerês National Park (PGNP), in Portugal, applying a new model approach to managing eco-destinations. The results show that all aspects predicted by the ATOS (Aims, Tools, Operational domains, and Stakeholders) model are present in PGNP management except for one: promoting cultural exchange and understanding. This empirical substantiation of the proposed model analysis opens the possibility of influencing ecotourism management practice, helping to perform private and public audits of eco-destinations in any part of the world. Moreover, it contributes to framing the development of new sustainable eco-activities and eco-destinations.

Keywords: Ecotourism management model, Responsible travel, Societal sustainability, Eco-destination, Destination marketing, Protected area

1. Introduction and Framework

Tourism is one of the most dynamic sectors of the global economy, making its entrepreneurial structure pivotal. Ecotourism and sustainability have gained significance in contemporary society, fostering local development in eco-destinations and incorporating rural and cultural tourism in sensitive natural areas (Kasalak, Akinci, and Yurcu, 2016). Recognizing its economic impact (The Business Research Company, 2023), recent studies have explored various management concepts for ecotourism. Several frameworks exist for managing recreational outdoor activities, but there is a lack on an easy and straightforward management tool to assess ecotourism activities. This gap led Carvalho et al (2024) to developing a new model to assess ecotourism management structure based on an extensive literature review. In this context, place-making emerged as a key strategy for positioning eco-destinations in global markets, balancing sustainability with development, and encouraging tourist loyalty (Serralvo and Furrier, 2005; Habibah et al, 2013). Effective destination marketing should emphasize key attributes, aligning the destination's identity with external perceptions (García-Madurga et al, 2019; Nogueira and Carvalho, 2022). Moreover, the concept of 'destination' encompasses physical and natural attributes, a mix of products and services, and psychological experiences (Buhalis, 2000; Vengesai, 2003). Destination image assessments should also include sustainability dimensions (Lee and Xue, 2020). Collaborative planning between private and public entities is essential for creating quality experiences and developing eco-destinations (Rivera and Croes, 2010). Ecotourism, thus, represents inclusive and sustainable tourism, crucial for rural economic development (Baloch et al, 2023; Ketema, 2015; Kim and Park, 2017).

Ecotourism is fundamentally intertwined with community benefits, environmental conservation, and sustainable practices. It emphasizes education and responsible travel, leveraging the natural and cultural heritage of destinations. Successful ecotourism requires stakeholder collaboration, careful planning, and responsible marketing (Cabral and Dhar, 2020; Fennell, 2001; Weaver and Lawton, 2007). Key elements include focusing on natural areas, sustainable practices, conservation efforts, and local community benefits (Chandel and Mishra, 2016). Stakeholders must align on goals to protect ecosystems, minimize negative impacts, and enhance community well-being (Garrod, 2003; Batool et al, 2021). Since the 1990s (e.g., Blamey, 1997; Buckley, 1994; Pedersen, 1991; Sirakaya, Sasidharan, and Sönmez, 1999), literature advocated for nature-based ecotourism managed with ecological, socio-cultural, and economic sustainability, involving local communities. Effective ecotourism management requires a model that ensures stakeholder agreement on objectives, resource conservation, and minimal environmental impact (Batool et al, 2021; Ceballos-Lascurain, 1996; Kusumarto et al, 2019). Moreover, carrying capacity considerations are crucial for preserving natural ecosystems (Fei et al, 2023; Salemi et al, 2019).

Ecotourism's evolving nature links it to sustainable tourism, emphasizing responsible, ethical, and community-beneficial travel. Critics argue that sustainable management is essential to avoid negative environmental impacts (Baral, 2014). Thus, community-based ecotourism could involve greater community control and benefits, enhancing ecosystems and empowering residents (Tesfaye, 2017; Weaver and Lawton, 2007). Despite controversies around sustainable tourism concepts, integrating their principles into ecotourism is essential for

achieving societal sustainability (Pasgaard et al, 2021). Government support and regulatory frameworks are also crucial for the success of ecotourism ventures (Musavengane and Matikiti, 2015). Collaboration among stakeholders supports sustainability efforts and enhances the tourism experience (Roxas, Rivera, and Gutierrez, 2020). As such, sustainable ecotourism must involve local and external stakeholders, including authorities, businesses, communities, and tourists.

Effective ecotourism management ensures the protection of cultural and natural heritage, economic benefits, community well-being, environmental preservation, and responsible travel, promoting sustainable tourism development (Atieno and Njoroge, 2018; Donohoe, 2011; UNWTO/MST, 2016; Weaver and Lawton, 2007). In this context, strategic planning and stakeholder cooperation are vital for preserving eco-destinations and ensuring long-term benefits (Backman, Petrick, and Wright, 2001; Gök, 2022). This comprehensive approach ensures ecotourism contributes positively to local economies, cultural preservation, and environmental sustainability.

Thus, this paper aims to empirically substantiate the ecotourism management model assessment proposed by Carvalho et al (2024), through its application to an important National Park. This objective led to the following research question: are the aspects predicted by the assessment model confirmed by the case study?

The next section presents the theoretical framework, followed by the methodology, results, and final remarks.

2. Methods

One chose a relevant case study, Peneda-Gerês National Park to analyse its official documents to explore their coverage of all strategic management aspects predicted in the literature and systematised in the ATOS model. All needed data is available online on the site: <https://www.icnf.pt/cogestao/cgparquenacionaldapenedageres>. The thematic analysis of the main strategic management documents followed the themes and categories provided for the assessment model. However, we tried to verify whether all the planned measures added any new theme or category not foreseen in the literature and included in the model.

2.1 The Model for the Assessment of Eco-Destination Management Structure

Based on an extensive literature review, Carvalho et al (2024, p.7) defined ecotourism management “as an activity that plans, organises, coordinates, and controls ecotourism, implying the cooperation of all stakeholders, societal sustainability, and responsible travel”. This model was called ATOS because it relies on four main aspects of the structure of an eco-destination management: **Aims**, which are related to societal sustainability and responsible travel; **Tools** needed for those aims that are related to the existence of a marketing system, and a systematic conservation planning; **Operational domains**, which are related to preserving local cultures, promoting cultural exchange and understanding, providing educational and meaningful experiences, preserving natural, tangible and intangible heritage, and social environments, minimising negative environmental impacts, supporting conservation efforts, and providing well-being and financial benefits to local communities; and **Stakeholders** intervention, which are crucial for the achievement of the operational domains of ecotourism management.

2.2 Study Site – Peneda-Gerês National Park (North of Portugal)

The PGNP is the most important national park (protected area) created by the Decree-Law nº 187/71 of 8th May, with several attractions for tourists who seek nature tourism and ecotourism, offering them a unique natural landscape in the north of Portugal, close to the Spanish border, which forms a continuous landscape with the Natural Park of Baixa Limia-Serra do Xurés, in the Municipality of Lóbios, in Spain. PGNP is characterized by being an area with enough samples that exhibit the region's characteristics, in terms of natural and humanized landscapes, elements of biodiversity, and natural sites, with scientific, ecological, or educational value. It occupies an area of 69,596 ha, spread over five municipalities: Melgaço, Arcos de Valdevez, Ponte da Barca, Terras de Bouro, and Montalegre (Figure 1).



Figure 1: Peneda-Gerês National Park map

In May 2009, the territory defined by the administrative boundary of the municipalities belonging to the Trans-frontier Park was declared a World Biosphere Reserve. It is a rugged mountainous region, with altitudes generally above 700 meters, reaching 1545 meters in Nevosa (Gerês Mountain). It covers the Peneda, Soajo, Amarela, and Gerês mountains and the Castro Laboreiro and Mourela plateaus. Due to its geographic situation, the PGNP is influenced by the Atlantic, Mediterranean, and continental climates, which allows the appearance of plants adapted to the most diverse climatic conditions. It is thus characterized by an enormous botanical diversity, having several endemic species and others of high value for nature conservation.

Thanks to the diversity of natural habitats, the PGNP has a remarkable faunal diversity, with several endemic, rare, or limited species in Portugal. Two hundred forty-six vertebrates are identified: 161 birds, 40 mammals, 11 fish (including five introduced species), 20 reptiles, and 13 amphibians. Of these, 53 belong to the endangered species list of the 'Red Book of Vertebrates of Portugal'. Large mammals, such as the Iberian wolf (*Canis lupus*), the roe deer (*Capreolus capreolus*), the mountain goat (*Capra pyrenaica*), and even the garron (domestic species), are those that usually focus more attention.

The region provides experiences to the visitors, natural resources, and the continuity of the community's culture, ensuring that sustainable tourism does not adversely impact the culture and the community, as the local community is vital in tourism planning and management. Thus, its strategic product is ecotourism, which considers an active and contemplative nature and includes complementary products like history and culture, gastronomy and wines, health and well-being, and nautical activities. The local authorities try to communicate with strategic markets like Portugal, Spain, France, Germany, and the United Kingdom, as well as countries like the Netherlands, the USA, and Brazil as secondary markets.

All these factors make PGNP a relevant case to study in an ecotourism management strategy.

2.3 Co-Management Commission

The Decree-Law No.116/2019, of August 21st, instituted the model of co-management of protected areas at the national level, with the objectives of creating a shared dynamic of valuing the protected area, based on its sustainability, establishing concerted procedures aimed at better performance in safeguarding natural values and responding to society's requests, and generating a relationship closer to citizens and relevant entities to promote development sustainability of each protected area (Order no.3022/2021, of March 19th).

Thus, the PGNP co-management committee has the following composition:

- The Mayor Arcos de Valdevez, who presides the committee;
- The regional director of Nature Conservation and Northern Forests;
- Representative of the University of Minho;
- Representative of environmental and similar non-governmental organizations designated by the Portuguese Confederation of Environmental Defense Associations;
- Representative of the Association for the Development of the Regions of the PGNP;
- Representative of the Atlantic Forest Association;
- Representative of the Regional Directorate of Agriculture and Fisheries of the North.

The term of office of the co-management committee is four years.

The Commission is responsible for (CCOR, 2019):

- Ensure that co-management of the protected area is carried out in compliance with the duty of care to safeguard the resources and territorial values that underlie the classification of the protected area;
- Contribute to the development of local activities in harmony with present values, incorporating innovation and creativity;
- Enable environmental, economic and social promotion, awareness-raising and communication actions, through the development and implementation of co-management instruments in the protected area;
- Promote actions, in conjunction with different regional agents and central and local Administrations, for the integrated development of the protected area, as well as stimulating participation and civil society initiative, namely through awareness-raising actions and educational projects;
- Encourage partnerships with promoters, companies, research centres, training institutions, and municipalities aimed at planning and implementing actions for the sustainable valorisation of the territory, actions associated with agriculture, pastoralism, hunting, fishing, culture, and nature tourism;
- Promote debate about the activities and actions that take place in the protected area and encourage good management practices for their sustainable use and exploitation;
- Provide the necessary information to ensure coherence and complementarity between the various bodies and entities, with a view to the sustainable and integrated development of the protected area;
- Communicate with all public and private entities involved in the protection and valorisation of natural capital, interpreting and disseminating the main attributes existing in the protected area, and raising awareness of the most appropriate ways of preserving and valuing them;
- Develop and approve management instruments, following the opinion of the strategic council;
- Execute management instruments;
- Consult the strategic council on matters of interest for the enhancement of the protected area;
- Identify the instruments and lines of financing to support the implementation of the co-management plan for the protected area and support potential beneficiaries to access these same lines;
- Monitor the preparation, amendment, or review of the special protected area program;
- Prepare and approve the internal regulations necessary for its good performance;
- Entrepreneurs and the general public must always disseminate and guarantee knowledge of the relevant information produced within the scope of co-management, including information relating to financing instruments.

The protected area management instruments are the co-management plan, the annual activity and budget plan, the annual activity execution report, and other instruments agreed upon by the protected area co-management committee that obtain a prior opinion from the respective strategic council (INFG – Institute for Nature and Forest Conservation).

2.4 PGNP Co-Management Plan 2022-2027

The PGNP Co-management Plan constitutes the strategic reference for the protected area for the period 2022–2027. It aims to create a shared dynamic of valuing the protected area based on its sustainability in the political, social, economic, ecological, territorial, and cultural dimensions with a specific focus on the areas of promotion, awareness, and communication.

It was prepared by the Co-management Committee, and its approval was preceded by a Public Consultation during 20 working days (between November 18, 2022, and December 20, 2022), and 5 public presentation sessions of this document were also held (December 12 2022, in Arcos de Valdevez, December 13, 2022, Terras de Bouro, December 14, 2022, in Ponte da Barca, December 14, in Montalegre, and December 15, 2022, in Melgaço).

It obtained a prior opinion from the Strategic Council on January 31, 2023, and was approved by the Co-management Committee, also on January 31, 2023.

The Strategic Council is a body of the INFC of a consultative nature that works within each protected area of national interest and includes a representative of the INFC, representatives appointed by scientific institutions, and experts of proven merit in the fields of nature conservation and biodiversity, and representatives appointed by central administration services, municipal councils, parish councils and non-governmental environmental

organizations (<http://areasprotegidas.icnf.pt/cestrategicos/index.php/78-conselho-estrategico/71-conselho-estrategico>).

3. Results

The data analysis about what the PGNP management has done are implicit in the thematic analysis. Table 1 presents the evidence discovered in the official documents of the PGNP, which describe all the processes that are used to develop the co-management system.

Table 1: Evidence of strategic management structure using the ATOS model

Themes	Categories	Citations and references
Aims	Sustainability	<p>PGNP.5 (n.d.); PGNP.6 (n.d.).</p> <p>Promote the compatibility of the protection of natural resources and values with human activities, aiming at the region's sustainable development, contributing to the settlement of populations, and improving their quality of life (PGNP.1, p.13).</p> <p>Promoting sustainable development of the National Park has benefited from growing understanding and strengthening institutional cooperation at local, regional, and cross-border levels, contributing to the joint definition of priorities (PGNP.3, p.19).</p> <p>Contribute to affirming biodiversity, geodiversity, and natural and cultural capital as fundamental resources for the sustainable development of the PGNP territory, investing in proximity, participatory and collaborative management based on knowledge, innovation, and valorisation of its resources, which ensures a harmonious coexistence between human activities and nature, as a legacy for future generations (PGNP.6, p.19).</p>
	Responsible travel	<p>PGNP.5 (n.d.); PGNP.6 (n.d.).</p> <p>Organize and promote a sustainable visitation regime to raise awareness and mobilize society to conserve the present natural and cultural heritage (PGNP.1, p.13).</p>
Tools	Eco-destination regulation and management	Order no.3022/2021; INFC (n.d.). PGNP.1 (n.d.); PGNP.4. (n.d.); PGNP.5 (n.d.); PGNP.6 (n.d.); PGNP.7 (n.d.); PGNP.8 (n.d.).
	Marketing system	<p>PGNP.5 (n.d.); PGNP.6 (n.d.).</p> <p>Consolidate and publicize the PNP as a territorial unit, facilitating its perception as an entity through appropriate means of promotion and communication (internal and external), interacting with different audiences (local population, visitors, schools, researchers, companies, institutions, etc.) and positioning the territory in the national and international context (PGNP.3, p.28).</p>
	Systematic conservation planning	<p>PGNP.5 (n.d.); PGNP.6 (n.d.).</p> <p>Promote environmental valorisation, the efficient use of resources, and the management of territory with multiple services, seeking to harmonise existing human activities with the protection, valorisation and sustainable management of natural resources and combating all forms of pollution and environmental aggression that can jeopardise the sustainable development and differentiation of the National Park's natural capital. Promote the preservation and restoration of ecological processes, biodiversity, and geodiversity, as well as knowledge, dissemination, management, and monitoring of natural resources and values (PGNP.3, p.29).</p> <p>The PGNP Co-management Plan is the document that establishes the strategy and programming basis for a set of investments over five years, oriented towards the fundamental objectives of co-management, that is, towards the sustainable development of this protected area. The PGNP Co-management Plan is based on a strategic planning work for the sustainable development of the PNP (PGNP.6, p.8).</p>
Operational domains	Preserving local cultures	<p>PGNP.5 (n.d.); PGNP.6 (n.d.).</p> <p>It combined the objectives of visitation with those of requalification and preservation of historical and cultural heritage, namely creating museum centres and thorough the musealisation of heritage sites and structures to make them visitable and to value local culture (PGNP.6, p.42).</p>

Themes	Categories	Citations and references
	Promoting cultural exchange and understanding	without evidences.
	Providing educational and meaningful experiences	PGNP.5 (n.d.); PGNP.6 (n.d.). Ensure the protection of scenic values for cultural, scientific, educational and recreational purposes (PGNP.1, p.13). PGNP Doors also develops educational and environmental interpretation activities for schoolchildren and other specific groups. They also include other offers for visitors, namely leisure spaces, the Mezio Biological Park, Star Observation Park, and observatories, among other equipment. Services linked to promoting local culture, such as museums and museum centres, are also mentioned. They are essential visiting structures and have contributed significantly to preserving and disseminating historical and cultural heritage, with very positive results in terms of appreciation and tourist attraction in the region (PGNP.3, p.18).
	Preserving natural, tangible, and intangible heritage, and social environments	PGNP.5 (n.d.); PGNP.6 (n.d.). Conserve material and intangible cultural heritage to preserve identity and collective memory (PGNP.1, p.13).
	Minimizing negative environmental impacts	PGNP.5 (n.d.); PGNP.6 (n.d.). Although important for the local economy, increasing the number of visitors should not be a primary objective for the Park region, considering that it is more important to achieve a more outstanding balance in the temporal and spatial distribution of visitors throughout the year and an expansion the average length of stay of tourists. This situation is also the most convenient regarding the region's carrying capacity (PGNP.3, p.16).
	Supporting conservation efforts	PGNP.5 (n.d.); PGNP.6 (n.d.). Preserve and restore ecological processes, biodiversity, and geodiversity, namely through promoting the expansion of climax native vegetation, to ensure the proper functioning of ecosystem services (PGNP.1, p.13).
	Providing well-being and financial benefits to local communities	PGNP.5 (n.d.); PGNP.6 (n.d.). In activities directly or indirectly linked to tourism, there is greater economic dynamism regarding the employed population and number of companies. The sector's dynamics are mainly based on the richness and diversity of the Park's natural and cultural heritage and the recognition of its status as the only National Park in the country. It also benefits from the projection facilitated by UNESCO's declaration as a World Biosphere Reserve. In certain parishes, tourism is already the main economic activity (PGNP.3, p. 15).
Themes	Categories	Citations and references
Stakeholders	Local population, local authorities, ecopreneurs, environmentalists, tourists, and government	PGNP.2 (n.d.); PGNP.5 (n.d.); PGNP.6 (n.d.). Also noteworthy is the role of local development associations, which operate at various levels and with common development objectives and which in some way have contributed to the establishment of strategic lines of action in the territory, particularly concerning training for employability in emerging activities, support for economic activities and valorisation of local products, requalification of rural areas and built heritage, valorisation of natural and cultural heritage, qualification and tourism promotion, among others (PGNP.3, p. 15). The PGNP plan reflects the vision shared by different institutions in the territory, namely municipalities, those responsible for the areas of nature conservation and forests, agriculture, academia, local development associations and NGOs, waste management entities and landowners, representatives of tourism entrepreneurs, companies and other relevant institutions (PGNP.6, p.8).

4. Discussion and Final Remarks

As such, it was possible to answer to the research question. The assessment model can frame all aspects of ecotourism management, as one can verify with the relevant case study of PGNP. One can notice that all aspects predicted by the model are present in PGNP management except for promoting cultural exchange and understanding. As indicated in the literature (e.g., Backman, Petrick, and Wright, 2001; Donohoe, 2011; Gök, 2022), this topic needs to be more explicit in the strategic plan of the PGNP. This issue is essential to promote human and cultural relationships among different cultures in an increasingly globalised world. Nevertheless, it

is possible to conclude that PGNP managers propose strategies for almost all aspects concerning effective eco-destination management systematised by the model.

This model was supported by an extensive analysis of previous systematic literature reviews and other articles that analysed management systems for many different cases of ecotourism. As such, one can conclude that the model can be applied in different contexts, both in terms of creating an eco-destination and its management and promotion, always aiming at its planned conservation with the involvement of all stakeholders. Notice that the previous literature review (Carvalho et al, 2024) was conducted until a theoretical saturation about ecotourism and how it can be managed and developed was achieved. Consequently, the literature review gave us a comprehensive definition of what creating an ecotourism activity might entail. In this context, to create a model for general application, we sought to deepen and detail all the necessary aspects in the various cases, achieving a synthesis presented in the model: Aims, Tools, Operational domains, and Stakeholders (ATOS).

The ATOS model could help public and private managers and policymakers reflect on all issues involved and the cultural exchange between tourists and local people, contributing to more cultural understanding. Thus, this paper concludes that managing an ecotourism activity is crucial to developing an eco-destination management and marketing system with a systematic conservation plan to achieve societal sustainability at all economic, ecological, social, and psychological levels and promote responsible travel. All stakeholders should be heard to commit everyone to implementing the management model. In practice, the domains that should be considered are the preservation of local cultures, as well as natural, tangible and intangible heritage, and social environments; promoting cultural exchange and understanding; providing educational and meaningful experiences; minimising negative environmental impacts; supporting conservation efforts; and providing well-being and financial benefits to local communities. In summary, it is crucial to preserve eco-destinations to maintain their attractive capacity. On the other hand, one needs to manage ecotourism activities to respect a place's carrying capacity, promoting societal sustainability and responsible travel.

This study's main limitations concern the fact that only one eco-destination was evaluated, and only the official documents were analysed. Still, it is possible for future studies to address the results of those strategic intentions, hear the stakeholders, and enlarge the application of the ATOS model to other ecotourism destinations.

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