Original Research Article

Implementation of ecotourism concept in Jambi Province

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Abstract
Ecotourism has a close relationship with sustainable tourism management, making ecotourism development strategies highly suitable for preserving ecosystems and playing a vital role in the conservation and management of natural habitats for species while creating economic benefits for local communities. Being a province with the highest number of national parks poses a unique challenge for Jambi Province as a pioneering province in ecotourism concept development. This research is crucial as it requires an in-depth examination of the limitations and challenges faced during the development process in order to establish Jambi Province as a model province for ecotourism. Qualitative analysis through literature review is essential to determine the extent to which the implementation of the ecotourism concept is applied in Jambi Province. The objective is to identify the limitations and challenges in the ecotourism development process in Jambi. The expected benefits of this research include expanding knowledge on limitations and challenges in ecotourism development and providing input for the future development of national parks tourism in Jambi Province. The results of this study indicate that the main aspect of ecotourism, conservation principles, is well implemented in Jambi Province, although challenges remain in the social and economic aspects. Some of the limitations in implementing social and economic principles include (a) the need for community involvement as stakeholders in planning, implementation, and monitoring of ecotourism development to enhance cohesion among individuals in the community; (b) collaboration between the government, non-governmental organizations, and entrepreneurs that still have room for optimization to ensure equitable and fair distribution of tourism benefits; (c) ecotourism, seen as a comprehensive product of natural attractions, has been established, but it is yet to be supported by tourism activities focused on nature and environmental conservation efforts.

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1. INTRODUCTION

Tourism is an alternative for accelerating economic growth to address poverty in Indonesia and serves as a supporting factor for regional development (Yoeti, O.A., 2008; Santosa, B.N.K., Putra, I.G.P.A., & Wirawan, K., 2022). The tourism industry is capable of directly stimulating the local economy through the involvement of the community as workers and entrepreneurs in meeting the needs of visiting tourists (Blackstock, K., 2005). Effective tourism development, besides involving the local community, must also be accompanied by well-planned measures to mitigate the environmental impacts (Mu'tashim, M.R., & Indahsari, K., 2021). Numerous sources discuss the development of tourism with a deep focus on nature conservation, commonly known as ecotourism (Weaver, D., 2008; Buckley, R., 2009; Singh, J., 2010; Fennell, D.A., 2020; Rohani, E.D., & Purwoko, Y., 2020; Dewi, I.K., Suwarti, S., & Yuwanti, S., 2021). The concept of ecotourism is used as a nature-based tourism approach that simultaneously embraces responsibility for the biodiversity within it.

Ecotourism is defined as a form of travel that enhances the well-being of local communities with a sense of responsibility toward environmental sustainability (Lu, W., & Stepchenkova, S., 2012). The principles of ecotourism, as stated by The International Ecotourism Society (1990) in Lu, W., & Stepchenkova, S. (2012), include (a) Conservation principles to minimize impacts, raise awareness, and respect for the environment and culture; (b) Social principles that empower local communities and increase tourists’ sensitivity to the political, environmental, and social climate of the host country; and (c) Economic principles in utilizing conservation that provide positive experiences for visitors and financial benefits for the host. Ecotourism has a close relationship with sustainable tourism management. Therefore, ecotourism development strategies are highly suitable for preserving ecosystems and play a crucial role in the protection and management of natural habitats for species, while creating economic benefits for local communities (Butarbutar, R., & Soemarno, S., 2013).

The Indonesian government actively implements the concept of ecotourism through the development of national parks, which are natural areas on land and/or sea designated to protect ecological integrity for present and future generations. This development concept allows for tourism visits that are compatible with the local environment and culture (International Union for Conservation of Nature and Natural Resources, United Nations Environment Programme, World Wildlife Fund, Food, and Agriculture Organization of the United Nations, & Unesco, 1980). In total, there are 54 national parks spread across 32 provinces in Indonesia (Directorate General of Natural Resources and Ecosystem Conservation, n.d.). Jambi Province, along with East Java, has the highest number of national parks, with each province having four national parks within its administrative boundaries. Being a province with the highest number of national parks poses a unique challenge for Jambi Province as a pioneering province in ecotourism concept development. This research is essential because making Jambi Province a model province for ecotourism requires an in-depth analysis of the limitations and challenges faced during its development. This can serve as a reflection of the development of nature-based tourism concepts in other provinces in Indonesia.

Qualitative analysis through literature review is crucial to determine the extent of implementation of the ecotourism concept in Jambi Province. The aim is to identify the limitations and challenges in the ecotourism development process in Jambi. The expected benefits of this research include additional knowledge about the obstacles and challenges in ecotourism development, serving as input for the future development of national park-based ecotourism in Jambi Province. The research approach utilized in this study adopts the principles of ecotourism according to TIES (1990) in Lu, W., & Stepchenkova, S. (2012), which include:
1.1 Conservation Principles

The growth of nature-based and ecotourism, along with related business activities, has made protected areas a primary destination for tourists. However, the relationship between tourism and protected areas often poses challenges in their development process, as the economic focus of tourism differs from the conservation focus of protected areas. The gap between tourism and protected areas arises due to the conflicting objectives of conservation and the negative impacts sometimes associated with profit-oriented commercial tourism (Dharmaratne, G. S., Yee Sang, F., & Walling, L. J., 2000; Wilson, E., Nielsen, N., & Buultjens, J., 2009; Jamal, T., & Stronza, A., 2009 in Whitelaw, P. A., King, B. E., & Tolkach, D., 2014).

Efforts to minimize the gap between tourism and protected areas can be achieved through conservation principles to protect and preserve various elements considered vital for human life, such as the environment (water, land, and air), animals, plants, buildings, and other valuable objects (Darmayani, et al., 2022). Some basic conservation principles according to Law No. 5 of 1990 include protection, which involves safeguarding life support systems, and preservation, which entails sustainable utilization of biological resources and ecosystems.

1.2 Social Principles

Ecotourism, as studied in the context of social livelihoods, embodies responsible tourism activities that sustainably preserve the traditions and cultures of local communities (Pasape L., Anderson W., & Lindi G., 2013). The concept of ecotourism, which prioritizes sustainability in tourism, was developed as a preventive measure against the imbalances created by tourism, such as crime, begging, social stratification, and cultural degradation that erode the existence of local wisdom (Hidayat A., Rahmanita M., & Hermantoro H., 2017).

The indicators of successful implementation of ecotourism in the social realm are achieved when tourism manages to maintain or enhance the social equilibrium of local communities. This includes increased cohesion among community members, as individuals within the community work together to build successful tourism enterprises. Additionally, funds allocated are used for community development purposes, such as building schools, improving infrastructure, supporting artistic endeavors, and promoting local handicrafts. On the other hand, indicators of unsuccessful implementation of ecotourism can be observed through disharmony and social regression. This may involve the appropriation of external values leading to a loss of respect for traditional culture, with certain marginalized groups (e.g., women) bearing disproportionate burdens associated with tourism initiatives that do not equally distribute benefits. Moreover, instead of collaboration, individuals, families, ethnic groups, or socioeconomic groups may compete with each other to gain tourism benefits, resulting in social resentment and jealousy (Hidayat A., Rahmanita M., & Hermantoro H., 2017).

1.3 Economic Principles

Ecotourism as part of the tourism industry has unique characteristics in terms of the economic development of a region. Generally, the tourism industry has the ability to trigger a multiplier effect on various sectors of the economy that are directly and indirectly related to this industry. For example, the sectors of goods and services production, sales distribution, and workforce in the tourism areas that arise as a result of tourism activities (Putra, A. P., Wijayanti, T., & Prasetyo, J. S., 2017). Ecotourism is a method of utilizing tourism as an economic activity that can enhance the economy while providing opportunities for tourists to experience nature-based and cultural tourism activities, as well as an understanding of the importance of conserving biodiversity and local culture for tourists. The study of
ecotourism from an economic perspective can be divided into two categories: First, ecotourism as a product with overall attractions based on natural resources that are naturally available. Second, ecotourism as a market, where tourism activities are directed towards efforts to preserve nature and the environment, as well as educating tourists about the importance of preserving nature and its contents. From this perspective, it can be concluded that ecotourism can provide income generation for conservation activities along with the economic benefits obtained by the communities around ecotourism locations (Munir, A., 2018; Sukarnoto, T., 2020).

2. METHODS

The method used in this research is qualitative, focusing on observing phenomena and the underlying meaning of those phenomena. Qualitative research pays more attention to human elements, objects, and institutions, as well as the relationships or interactions among these elements, in order to understand an event, behavior, or phenomenon (Wibisono, A., 2019). The approach used in this research is a literature study approach, which is one of the research approaches involving data collection through reviewing books, literature, notes, and various reports related to the implementation of ecotourism concepts in Jambi Province. This research falls under the category of descriptive research, focusing on providing a systematic explanation of the facts obtained during the research.

The procedures followed in this research include (a) Topic selection, (b) Information exploration, (c) Determination of research focus, (d) Data source collection, (e) Data presentation preparation, and (f) Report writing. The data sources used include books, research journals, and relevant websites related to the chosen topic. The data analysis technique employs descriptive analytics with a focus on the implementation of ecotourism concepts in Jambi Province based on conservation, social, and economic principles. The sample used to represent the overall characteristics of the population in this research consists of literature data from four national parks in Jambi Province. The collected and classified data, based on the research focus mentioned above, are then analyzed using the relevant theories obtained.

|------------------------|-----------------|--------------------|
| Protection refers to the protection of life support systems (water, soil, air, animals, plants, buildings, and other valuable objects). | Indicators of successful implementation of ecotourism concepts:  
a. Increased social cohesion within the community.  
b. The allocated funds are utilized for community development purposes, such as building schools, improving roads, and supporting artistic and handicraft infrastructure. | Ecotourism as a product: Overall attractions are based on natural resources that are naturally available. |
| Preservation involves the sustainable utilization of natural resources (water, soil, air, buildings, and other valuable objects) and ecosystems (animals and plants). | Indicators of unsuccessful implementation of ecotourism concepts:  
a. Loss of respect for traditional culture.  
b. Tourism initiatives that do not distribute benefits fairly, lead to resentment and social envy. | Ecotourism as a market: Tourism activities directed towards efforts to preserve nature and the environment, while educating tourists about the importance of conserving nature and its contents. |

3. RESULTS AND DISCUSSIONS

3.1 General Overview of Ecotourism Development

Based on the literature search conducted, a total of 8 research studies related to ecotourism development in Jambi Province were found. Table 2 presents the research database used to describe the implementation of ecotourism concepts found in the four national parks in Jambi Province and its surroundings, including:

<table>
<thead>
<tr>
<th>No</th>
<th>Writer</th>
<th>Title</th>
<th>Research Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Marta, A. (2016)</td>
<td>Strategi Pemerintah dalam Pengembangan Ekowisata: (Studi di Kawasan Taman Nasional Bukit Tiga Puluh)</td>
<td>Taman Nasional Bukit Tiga Puluh</td>
</tr>
</tbody>
</table>

The first research conducted by Harnov, Amzu, E., & Soekmadi, R. (2016) focuses on forest conservation learning from the ethical values and traditions of the Anak Dalam tribe in Bukit Dua Belas National Park, Jambi Province. It discusses the interaction between the Anak Dalam community and the forest, which has resulted in traditions and cultural values rooted in forest conservation. Their behavior towards forest resources reflects sustainable resource utilization through the bejernang tradition, which involves the use of jernang rattan fruit (Daemonorops spp) to meet their spiritual, social, and economic needs. The second research conducted in Bukit Dua Belas National Park is by Aritonang, S. I. S., & Syamsuddin, A. (2019), which explores the potential and development of ecotourism in Jambi Province. It concludes that Bukit Dua Belas National Park is suitable as a natural tourism attraction, contributing to the preservation of populations and habitats within the park.

The third and fourth research studies are conducted in Berbak Sembilang National Park. The study by Nursanti, Wulan, C., & Junita, R. (2018) focuses on the ecotourism potential in Air Hitam Laut Village as a buffer village for Berbak Sembilang National Park. Meanwhile, the study by Febriana, D., Muhammad, F., & Hartono, S. (2021) examines the government's efforts in developing ecotourism in Berbak National Park, specifically in Tanjung Jabung Timur District, highlighting both inhibiting and supporting factors. The fourth research study focuses on the government's efforts in budget utilization, equipment usage, and human resource management.
The fifth research by Sadad, A. (2018) discusses the environmental-based management of Bukit Tigapuluh National Park (TNBT). It highlights the potential of natural and cultural resources surrounding TNBT that still need intensive promotion, as the visitor interest has not yet fully optimized the ecotourism market potential. The sixth research study by Marta, A. (2016) concludes that the development strategies for Bukit Tigapuluh National Park (TNBT) through planning, utilization, and control have not been optimally implemented, resulting in ecosystem degradation and inadequate infrastructure.

The seventh research conducted by Lesmana, Y., Senoaji, G., & Anwar, G. (2020) aims to analyze the characteristics of visitors to Hutan Madapi, an attraction within Kerinci Seblat National Park. It calculates the feasibility and attractiveness of Hutan Madapi from ecological and economic aspects and formulates strategies for developing Hutan Madapi as a prominent tourist attraction. Lastly, the eighth research study by Prahara, G. C., & Dewi, M. P. (2022) focuses on the involvement of stakeholders in developing ecotourism in Kerinci Seblat National Park.

3.2 Conservation Principles

Secretary of the Ministry of Tourism and Creative Economy, Ni Wayan Giri Adnyani, stated at the Sustainable Tourism Development Forum (STDev) that conservation principles are a priority in building the tourism ecosystem in Indonesia. Especially in the post-pandemic era, tourism development is required to consider multiple crises faced by humanity, including environmental crises, health crises, and climate change crises that threaten natural resources, the environment, culture, and communities. The presence of conservation principles in dynamic tourism development strategies becomes increasingly important, particularly as a means to facilitate adaptation to climate change and variability that can disrupt the life support systems (Hendriyani, I. G. A. D., 2022, August 26).

The principle of protection of the life support systems (water, soil, air, animals, plants, buildings, and other valuable objects) in Bukit Tigapuluh National Park (TNBT) can be seen through the implementation of zoning systems, which consists of a core zone (55.2%), wilderness zone (35.5%), utilization zone (1.8%), rehabilitation zone (1.1%), and special zone (6.3%). Considering the vastness of the area, the variety of potentials, and the complexity of management issues, the current management direction of TNBT focuses on enhancing the capacity and capability of human resources as anticipation of challenges such as the difficulty in acquiring additional human resources, inadequate management infrastructure, and the cost of conservation management to ensure its sustainability.

The principle of preservation in conservation can be achieved through improving human perspectives and behaviors in interacting with nature. One form of preservation concept implementation in Jambi Province can be seen through the successful coexistence of the Suku Anak Dalam community with nature. This gives hope that forest conservation is possible. Learning from the social and cultural values of the Suku Anak Dalam community, solidarity, and simple living are key to forest conservation. The life of the Suku Anak Dalam community in Bukit Dua Belas National Park holds potential for tourism development, considering its ecosystem spectrum that includes a combination of forests, hills, rivers, wildlife, particularly protected species, and valuable flora as a germplasm resource.

3.3 Social Principles

The manifestation of sustainable traditions and culture in tourism is closely related to the presence of tourism in Indonesia. This is because the tourism industry directly connects sellers and buyers, known as tourists and local hosts. The presence of tourism that disregards social aspects is believed to cause cultural degradation, social jealousy within communities, and disparities in welfare improvement.
Social principles in tourism development in Indonesia can be applied through the concept of responsible ecotourism, which ensures the sustainability of nature and the surrounding communities livelihoods.

The analysis of the success of ecotourism in Jambi Province in implementing social principles is currently suboptimal, as the cohesion between communities, as well as between communities and local governments, has not been fully realized. So far, there are still individuals within the community who exploit the Berbak National Park area for personal gain. However, the allocation of budgetary funds by the government for canal development to support agriculture and plantations has been well implemented. Additionally, the local government’s attention to the local community and the involvement of various institutions in the development of the area is in good condition. These are some indications of the successful implementation of social principles in ecotourism in Berbak National Park.

Meanwhile, the indicators of ecotourism's failure in Jambi Province, based on the research sample in Kerinci Seblat National Park, include the loss of respect for traditional culture and imbalanced tourism initiatives, resulting in resentment and social jealousy. However, the management aspect of Kerinci Seblat National Park still faces a common problem, which is the compromise between conservation and economics. Collaborative governance of national parks is highly necessary to initiate and manage discourse collectively with all stakeholders. The involvement of the local community, as one of the tourism stakeholders, is crucial through a participatory model to ensure that the improvement of welfare through the economy is directly experienced by the communities surrounding Kerinci Seblat National Park.

### 3.4 Economic Principles

The development of tourism in boosting the country's economy can be seen through the number of international tourists (foreign tourists) visiting Indonesia, which reached 3.92 million tourists in the third quarter of October 2022. This number increased compared to 2021, which had only 1.56 million foreign tourists. Minister of Tourism and Creative Economy, Sandiaga Uno, revealed that the contribution to the tourism sector's gross domestic product (GDP) in 2022 until the third quarter reached 3.6 percent, a significant increase from 2.40 percent in 2021. The Minister also mentioned other positive records in 2022, such as creative economy exports reaching US$ 24.79 billion as of November 2022, accompanied by an increase in the tourism workforce to 22.89 million people in 2022, while the creative economy workforce reached 23.98 million people (Isdarmadji, N. Q., 2022, December 27).

The above-mentioned figures are of a general nature, where not only ecotourism but also other tourism concepts such as mass tourism, sports tourism, MICE, and others contribute to the increase in the tourism balance in Indonesia. However, the intensive development of ecotourism in Indonesia can be assumed to have a significant impact on the enhancement of the tourism economy balance. In terms of economic principles, ecotourism can be categorized into two categories: ecotourism as a product and ecotourism as a market.

At least four national parks in the Province of Jambi fall under the category of ecotourism as a product, which represents a range of attractions based on natural resources and readily available. For further details, please refer to Table 3 below:

<table>
<thead>
<tr>
<th>No</th>
<th>National Park</th>
<th>Available Attractions</th>
</tr>
</thead>
</table>
| 1  | Taman Nasional Bukit Dua Belas | a. 120 species of flora, including Ulin, towering up to 80 meters, Jelutung with a diameter of 2 meters, and Rotan Jerenang;  
   |                               | b. Various kinds of fauna;                                  |
The natural attractions in Jambi Province are the main allure for attracting tourists to this province. However, argumentatively, these attractions will only be profitable if they are developed through the concept of ecotourism as a market. The marketing definition in the concept of ecotourism is tourism activities aimed at conservation efforts of nature and the environment, as well as educating tourists about the importance of preserving nature and its contents.

The current overview of marketing aspects in Bukit Tiga Puluh National Park is still categorized as suboptimal. This is due to inadequate access roads, limited infrastructure facilities, inadequate promotion efforts, and the indifferent attitude of the local community as hosts. A master plan for ecotourism development is needed to accommodate conservation activities such as community-funded conservation through adoption programs and community outreach programs, where the local community is invited to directly participate in nature conservation efforts. Active community involvement will enhance the sense of belonging among the community, which will ultimately impact the packaging of ecotourism products to be more participatory.

In addition to being an alternative strategy for ecotourism concept development, community participation will also enhance tourist education regarding the importance of preserving nature. The role of local hosts who have direct contact with tourists will facilitate the transfer of information about the conditions and situations in the surrounding area.

### 3.5 Limitations and Challenges in Ecotourism Development in Jambi Province

The limitations in forest conservation are complex and encompass multiple aspects, making it difficult to find a comprehensive solution to overcome these limitations. However, the absence of a definitive solution does not mean that conservation efforts should stop at this point. The government, academia, non-governmental organizations, businesses, and community leaders should synergize to promote simple living and solidarity as the fundamental principles of forest conservation. This collaboration remains a challenge in order to achieve optimal results. Additionally, the development of
ecotourism concepts through conservation in Jambi Province is hindered by the relatively low level of education among the local communities, resulting in limited awareness of the importance of natural resources that can be developed into ecotourism products. Another challenge that arises after the creation of ecotourism products is the marketing aspect, which requires intensive promotion through various channels such as the internet, electronic media, and print media, and organizing annual events to increase awareness among the general public.

On the social front, the implementation of ecotourism concepts in Jambi Province faces obstacles in the form of a lack of village-level institutions and suboptimal cooperation among educational institutions. However, the allocation of funds for infrastructure development in several national parks has been appropriate and in line with planning. The presence of village-level institutions that actively monitor the developed infrastructure is crucial to ensure the benefits of ecotourism are not limited to a few individuals and are distributed more evenly.

The economic aspect, as an important component of social and cultural life, should not be neglected in favor of forest conservation. In fact, economic and conservation aspects can go hand in hand. However, in the case of Kerinci Seblat National Park, the common problem there is the compromise between conservation and economy. The challenge lies in maximizing visitor management and services, optimizing publicity and promotion, and formulating investment policies to attract investors. These efforts are necessary to develop the national park as an environmental education center, a camping site, a flora and fauna laboratory, and an outbound location. Furthermore, illegal activities within the area such as illegal logging, encroachment, and hunting of protected wildlife need to be promptly addressed by the relevant authorities.

4. CONCLUSION

Based on the discussion, analysis, and findings of this study, it can be concluded that the implementation of ecotourism concepts in Jambi Province through the principles of conservation, social, and economic aspects has been applied, although there are still several challenges for all stakeholders. At least, the main aspect of ecotourism, which is conservation, has been well implemented, while other principles have not met the expectations of achieving successful conservation activities with sustainable economic activities.

Some of the limitations and challenges in the implementation of social principles include (a) the need for community involvement as stakeholders in the planning, implementation, and supervision of ecotourism development to enhance cohesion among individuals in the community; (b) initiatives from the government, non-governmental organizations, and businesses that still have room for optimization to ensure the equitable and fair benefits of tourism. The development of economic principles in the implementation of ecotourism concepts in Jambi Province also faces obstacles, as ecotourism, seen as a holistic product of natural attractions, is not yet supported by tourism activities that focus on conservation efforts. This, in turn, affects the education of tourists about the importance of environmental preservation, which becomes less optimal.

The conservation, social, and economic principles used as approaches in this study are the main aspects of ecotourism development. However, the development of ecotourism focusing on community involvement as local hosts, including psychological and political aspects, was not included as variable in this study. These aspects can serve as inspiration for future research and the development of a more holistic approach to ecotourism, where the analysis goes beyond the development of attractions and focuses on the psychological and political development of the communities around the conservation areas.
Acknowledgment

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