

The Potential of Edu-Ecotourism 'Floradventure' in Djuanda Forest Park, Bandung

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ABSTRACT

Ir. H. Djuanda Forest Park (Tahura) is a protected area of 526.98 hectares that functions as a protected forest and tourist attraction. With 85% local flora and 15% from other bioregions, Tahura provides research, education, and recreation facilities. The area is made up of secondary natural forest and plantation forest, serving as a natural laboratory with vegetation from 40 families and 112 species, including both native and exotic plants. This research aims to develop the educational tourism package "Floradventure" to help tourists recognize the flora of Tahura Djuanda. The study was conducted in March 2024 using qualitative descriptive methods, feasibility study analysis, and SWOT analysis. The results show that the 'Floradventure' ecotourism site in Tahura has advantages in terms of accessibility, public facilities, and potential collaboration for additional facilities. Careful planning and evaluation are necessary for the success and sustainability of this educational tourism package.

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ARTICLE INFO

Article History:

Submitted/Received: 01 May 2024

First Revised: 30 May 2024

Accepted: 20 June 2024

First Available Online: 27 June 2024

Publication Date: 27 June 2024

Keyword:

ecotourism,
educational tourism,
floradventure,
Ir. H. Djuanda forest park

1. INTRODUCTION

Ir. H. Djuanda Forest Park (Tahura) is a conservation area that functions as a protected forest and tourist attraction, covering 526.98 hectares. Approximately 85% of the flora in Tahura consists of local plants, with the remaining 15% from other bioregions. Tahura protects biodiversity and provides facilities for research, education, and recreation (Afdan, et al., 2022). As a tourist destination, Tahura offers a unique and educational natural experience, easily accessible from urban areas. Tahura plays a crucial role in conservation in Indonesia and supports sustainable ecotourism, the social economy of communities, community participation, and environmental education (Adiyoso, 2022).

The Ir. H. Djuanda Forest Park area comprises secondary natural forest and plantation forest, including tall plants such as pine (*Pinus merkusii*) and lower plants such as mosses and ferns. This area functions as a natural laboratory (arboretum). The plantation forest began development in the 1950s on rocky land, which resulted in small diameters. In 1963, foreign timber plants were introduced on a 30-hectare area near the Plaza and the Japanese Cave. This forest has mixed vegetation from 40 families and 112 species, including foreign plants like African sausage, Ugandan mahogany, Mexican pine, and Hodura cedar. Domestic species include Javan pine, Bayur from Sulawesi, cinnamon from West Java, fig, resin from Maluku, and Sumatran cypress (Ardyanty, et al., 2023).

The diversity of flora in Tahura Djuanda provides potential for sustainable and educational ecotourism, attracting visitors interested in exploring nature and learning about plants. This diversity can also be utilized for ecosystem research and species conservation. The upcoming research aims to create an educational tourism package to introduce the tourist sites and flora in Tahura Djuanda. This educational tourism package is expected to facilitate tourists in recognizing and understanding the distribution of plants in Tahura Djuanda (Supriyatna, et al., 2022).

Floradventure is an educational tourism concept that offers a unique and educational experience in Ir. H. Djuanda Forest Park (Tahura). This concept is designed to combine trekking activities with learning about the flora in Tahura. Floradventure aims to provide a different experience for Tahura visitors by emphasizing nature exploration and learning about the flora within it. This goal aligns with efforts to raise awareness of the importance of nature conservation and biodiversity. The main activity in Floradventure is trekking, involving exploration of various trails and routes in Tahura to observe the flora. Additionally, educational activities about plants, such as making herbariums or introducing plant species, can be organized to enhance understanding and appreciation of Tahura's flora diversity.

2. METHODS

2.1. Time and Object of Research

The research object serves as the focus of attention in a study, to obtain answers or solutions to the problems being investigated. The tourist attraction that is the focus of this study is Ir. H. Djuanda Forest Park, located in Cimenyan District, Bandung City, West Java, shown in **Figure 1**. The research was conducted in March 2024, and the research method used is a qualitative descriptive approach.

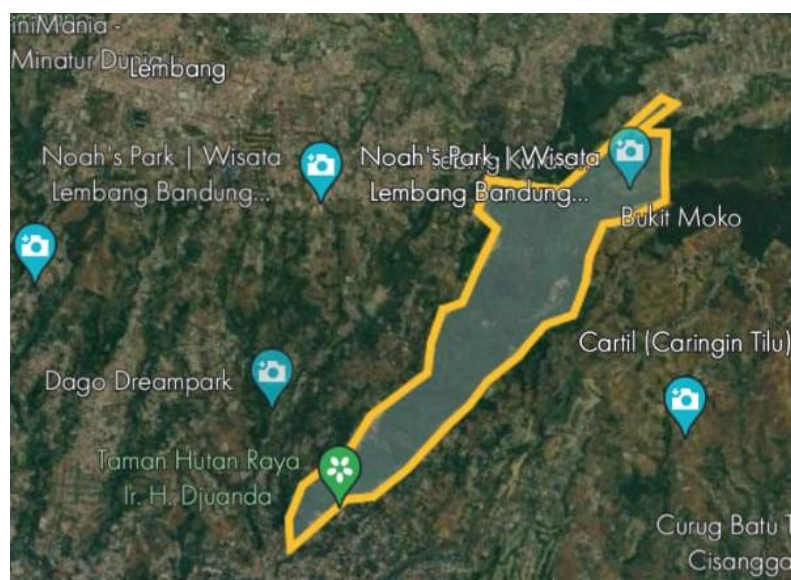


Figure 1. Research location map.

2.2 Data Analysis

The data analysis techniques in this study were conducted through feasibility study analysis and SWOT analysis. Feasibility study analysis is crucial as it helps identify problems and find appropriate solutions. The objective of the feasibility study is to evaluate whether the development of a fauna-based edu-ecotourism package in Djuanda Forest Park, Bandung, is feasible in economic, technical, social, and environmental terms. There are several key points in the feasibility study: 1) Attraction, 2) Accessibility, 3) Accommodation, and 4) Community support.

SWOT analysis aims to identify the strengths, weaknesses, opportunities, and threats that can influence the success of the fauna-based edu-ecotourism package in Djuanda Forest Park, Bandung. For SWOT analysis, it is necessary to determine each strength in the ecotourism, weaknesses, opportunities to turn strengths and weaknesses into opportunities, and threats to avoid turning strengths and weaknesses into threats.

3. RESULTS AND DISCUSSION

3.1. Internal and External Factor Analysis

The findings from the analysis of internal factors, focusing on strengths and weaknesses, are detailed in **Table 1**. This assessment provides insights into the intrinsic capabilities and limitations of the studied ecotourism initiative.

Table 2 presents the outcomes of the external factors assessment, particularly opportunities and threats. These findings illuminate the external conditions and challenges that could impact the feasibility and success of the initiative within its operational environment.

Table 1. Internal factor analysis.

INTERNAL	
Strength	Weaknesses
The 'Floradventure' edu-ecotourism package offers an interactive and engaging experience	Insufficient promotion
The 'Floradventure' edu-ecotourism package provides an attraction with the natural beauty of its surroundings	Limited human resource capability in managing the tourist attraction
The nearby location is accessible by private vehicle and has adequate road access, making it easy for tourists to visit	Suboptimal management of the tourist attraction
The strategic location is close to public facilities	Considerable distance that is not accessible to all groups
Adequate infrastructure	
Affordable entrance fees	
The diversity of flora can enhance the educational experience of tourists	

Table 2. Analysis of external factors

EXTERNAL	
Opportunities	Threats
Increasing number of visiting tourists	There are many competitors with similar edu-ecotourism concepts
Full support from the local community	Tourists' perceptions regarding comfort and safety
Online media to support the promotion of the ecotourism package	Damage to the ecosystem, especially flora, due to anthropogenic factors
The strategic location of the tourist attraction, frequently visited by tourists heading to other attractions	
Need for hiking equipment vendors to facilitate educational tourism	

3.2 Analysis of IFAS and EFAS Strategic Factors

1. Internal Strategic Factors Analysis Summary (IFAS)

The Internal Strategic Factors Analysis Summary (IFAS) shown in **Table 3**, each evaluated strength and weakness receives weight and rating values, which are multiplied and accumulated to determine their final scores. This systematic analysis meticulously assesses the internal strategic elements of the research, offering a thorough evaluation of the relative significance of these factors and their influence on the operational structure of the

ecotourism initiative. This method helps pinpoint critical strengths and areas for enhancement, crucial for making well-informed decisions and formulating strategic plans.

Table 3 Internal Strategic Factors Analysis Summary (IFAS)

No	Internal Strategic Factors	Weight	Rating	Rating X Weight
STRENGTH				
1	The 'Floradventure' edu-ecotourism package offers an interactive and engaging experience	0.13	3.75	0.487
2	The 'Floradventure' edu-ecotourism package provides an attraction with the natural beauty of its surroundings	0.13	3.70	0.481
3	The nearby location is accessible by private vehicle and has adequate road access, making it easy for tourists to visit	0.08	3.40	0.272
4	The strategic location is close to public facilities	0.08	3.50	0.280
5	Adequate infrastructure	0.04	3.35	0.134
6	Affordable entrance fees	0.08	3.40	0.272
7	The diversity of flora can enhance the educational experience of tourists	0.15	3.75	0.563
SUBTOTAL		0.67	23.85	2.489
WEAKNESSES				
1	Insufficient promotion	0.04	1.95	0.078
2	Limited human resource capability in managing the tourist attraction	0.13	2.50	0.325
3	Suboptimal management of the tourist attraction	0.13	2.70	0.351
4	Considerable distance that is not accessible to all groups	0.08	2.10	0.168
SUBTOTAL		0.38	9.25	0.922
TOTAL		1	33.1	3.411

2. External Strategic Factors Analysis Summary (EFAS)

In the External Strategic Factors Analysis Summary (EFAS) depicted in **Table 4**, each opportunity and threat evaluated is assessed with assigned weight and rating values, which are multiplied and accumulated to determine their final scores. This structured analysis systematically examines the external strategic aspects relevant to the study, providing a comprehensive evaluation of the significance of these factors and their potential impact on the operational environment of the ecotourism initiative. This approach facilitates the identification of critical opportunities and threats, crucial for informed decision-making and strategic planning.

Table 4. External Strategic Factors Analysis Summary (EFAS)

No	External Strategic Factors	Weight	Rating	Rating X Weight
OPPORTUNITIES				
1	Increasing number of visiting tourists	0,17	4	0,67
2	Full support from the local community	0,11	4	0,44
3	Online media to support the promotion of the ecotourism package	0,11	4	0,44
4	The strategic location of the tourist attraction, frequently visited by tourists heading to other attractions	0,17	5	0,83
5	Need for hiking equipment vendors to facilitate educational tourism	0,06	3	0,17
SUBTOTAL		0,61	20	2,6
THREATS				
1	There are many competitors with similar edu-ecotourism concepts	0,06	3	0,33
2	Tourists' perceptions regarding comfort and safety	0,17	2	0,22
3	Damage to the ecosystem, especially flora, due to anthropogenic factors	0,11	2	0,11
4	There are many competitors with similar edu-ecotourism concepts	0,06	2	0,39
SUBTOTAL		0,39	9	0,83
TOTAL		1	29	3,39
Description:				
Weight Scale		Rating Scale		
0.00: Not important		1 = Very weak		
0.05: Slightly important		2 = Weak		
0.10: Moderately important		3 = Moderate/Weak		
0.15: Important		4 = Strong		
0.20: Very important		5 = Very strong		

Educational ecotourism 'Floradventure' is located in a highly advantageous location. The benefit of this location lies in its proximity to public facilities such as toilets and other amenities. To enhance this potential, considerations could be made to provide facilities such as equipment rental for tracking, provision of prayer rooms (mushola), and resting areas with a variety of food and beverage options around the 'Floradventure' track area. This would provide comfort to tourists and reduce the likelihood of them feeling hungry or thirsty during educational tourism activities. Additionally, collaboration with cafeteria/restaurant operators to create educational tourism packages could include not only tracking activities but also activities like creating herbariums, allowing tourists to try and learn to make herbariums,

thereby indirectly enhancing their understanding of flora in Tahura (Adiyoso, 2022; Arief, 2013).

To avoid the risk of failure in educational tourism packages, careful and structured steps must be taken from planning to implementation. Thorough planning is the key to success, identifying the goals of educational tourism, learning objectives, and participant profiles. Selecting destinations relevant to the educational tourism theme, with safe and conducive facilities, is also crucial. Collaboration with relevant parties such as local guides, educational institutions, and transportation service providers should be considered to ensure smooth logistics (Proyanto, *et al.*, 2018; Rahayu, *et al.*, 2020; Yaqutunnafis & Salkiah, 2021).

Participant safety and security must be the top priority. Comprehensive risk assessment and identification of mitigation measures before implementation are essential to ensure participant safety. Guides should have sufficient skills and knowledge to handle emergencies. Regular evaluations are necessary to improve the quality of educational tourism packages in the future. Feedback from participants and stakeholders should be gathered to evaluate program success and identify areas for improvement. With a continuous evaluation approach, educational tourism packages can be continually improved to provide a better learning experience for participants in the future (Kineta, 2023; Lavenia, 2024).

4. CONCLUSION

Floradventure is an appealing tourism concept with significant potential to provide valuable experiences to visitors while enhancing awareness of the importance of environmental conservation and biodiversity. With careful planning and effective management, Floradventure can become a key attraction of Tahura and contribute to the development of sustainable ecotourism.

5. ACKNOWLEDGMENT

The authors would like to express their gratitude to the management of Ir. H. Djuanda Forest Park for graciously allowing their site to be the subject of study for this ecotourism research. Special thanks are extended to Universitas Pendidikan Indonesia, particularly the Biology program, for providing the opportunity to conduct this research.

6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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