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Toward developing a forest park as an urban tourism destination in Langsa, Indonesia

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ABSTRACT

This study aims to assess the tourism potential and feasibility of forest park in Langsa, Indonesia, as an urban tourist attraction. The research uses both primary and secondary data. Primary data were collected solely through questionnaires distributed to respondents, while secondary data were obtained from relevant agencies and include information on the location and geographical conditions of the area. The results indicate that forest park has strong potential to be developed as a tourist destination. However, improvements are needed in terms of accommodation facilities to support sustainable tourism development.

1. Introduction

Indonesia is the largest archipelagic country in the world. This geographical condition contributes to Indonesia's rich diversity in natural resources, customs, ethnicities, culinary traditions, beliefs, languages, and cultures. These diverse elements have positioned Indonesia as an attractive destination for both domestic and international tourists, thereby supporting the growth of the tourism sector (Anjelina, 2022; Mardhani et al., 2021; Mardhani et al., 2024; Maulana et al., 2025).

In the past decade, Indonesia has shown strong commitment to advancing its tourism sector, as outlined in the tourism destination development planning document. Tourism is defined as a human activity involving travel—either individually or in groups—with the purpose of recreation and gaining new

experiences, rather than for work or earning a living. This activity is supported by various facilities provided at tourism destinations (Juariyah et al., 2022).

Tourism has emerged as one of the world's largest industries and plays a significant role in Indonesia's economy. It generates business opportunities for local communities around tourist areas and serves as a development tool for local governments. Moreover, the tourism sector opens up employment opportunities across various regions. Its economic contribution is evident in increased foreign exchange earnings, regional income, business growth, and the acceleration of local development (Putri, 2022).

Each region in Indonesia possesses unique tourism potential, including Langsa City, located in the eastern part of Aceh Province. Langsa offers several attractions such as the Mangrove Forest, Merdeka Square, Sharp Bamboo Park, Balee Juang Building, City Forest Park, and other destinations.

The Langsa City Forest Park is a green area covering approximately 120 hectares in the heart of Langsa City. It offers various tourism potentials such as trekking routes, outbound activities, camping, and other nature-based experiences. Additionally, the park showcases a range of flora and fauna, making it an appealing destination for ecotourism.

Despite its potential, the Langsa City Forest Park remains underdeveloped, with uneven progress across its various attractions. As a result, it has not yet become a major draw for tourists. To fully realize its potential, collaboration among local government, communities, and tourism stakeholders is essential to address existing challenges and enhance the park's attractiveness.

To evaluate the tourism potential of natural attractions like Langsa City Forest Park, the Criteria Assessment of Natural Tourism Objects and Attractions (*Objek dan Daya Tarik Wisata Alam* or ODTWA) is often applied. This method assesses various indicators such as natural beauty, biodiversity, water availability, accessibility, and conservation efforts.

In 2003, the Directorate General of Forest Protection and Nature Conservation introduced the *Guidelines for the Criteria Assessment of Natural Tourism Objects and Attractions*. These guidelines assist tourism managers in conducting ODTWA assessments effectively and accurately. The criteria include the presence of natural habitats, flora and fauna diversity, availability of facilities, access infrastructure, and conservation initiatives (Nurani et al., 2021).

2. Literature review

2.1. Tourist

According to Nasrullah (2020), tourism encompasses all types of tourist activities that are supported by various facilities and services provided by the community, government, entrepreneurs, and local authorities. The World Tourism Organization (UNWTO) further defines tourism by emphasizing three key characteristics that differentiate tourism from other forms of travel. In essence, tourism refers to a journey undertaken by an individual from their place of residence to a tourist destination for a temporary period, with the primary purpose being recreation or leisure, rather than earning income at the destination.

2.2. Traveler

A traveler, or tourist, is an individual engaged in tourism-related activities, typically traveling voluntarily to another region for leisure, learning, or new experiences. As stated by Maesaroh (2019), tourists can be classified into several categories: international tourists, domestic foreign tourists, local tourists, indigenous tourists, transit tourists, and business tourists. From this perspective, anyone undertaking a trip with recreational or educational purposes qualifies as a tourist.

2.3. Tourist attraction

According to the 1998 State Policy Guidelines (GBHN) as cited by Suarto (2017), the development of tourist attractions is aimed at utilizing tourism resources as a strategic economic activity to increase foreign exchange earnings, expand equitable employment opportunities for local communities, promote regional development, and introduce Indonesia's rich natural and cultural heritage.

In the context of international tourism, a tourist attraction refers to any feature or element that draws visitors to a particular area (Suarto, 2017; Herawati, 2016, Heryati, 2019). These attractions may include natural elements, cultural expressions, or human-made activities and facilities. Heryati (2019) outlines three main categories of tourist attractions:

1. Natural Attractions – Landscapes created by nature, such as scenic vistas, biodiversity-rich forests, and rare wildlife.

2. Man-Made Attractions – Includes museums, archaeological sites, historical landmarks, art and cultural centers, agro-tourism destinations, recreational parks, and other entertainment venues.

3. Special Interest Tourism – Activities such as mountain climbing, cave exploration, hunting, religious pilgrimages, craft industry visits, rapid river tours, and traditional marketplaces.

Tourism, in a broader sense, includes all activities related to travel, including the management of tourism objects and attractions as well as the supporting industries.

2.4. Feasibility analysis of potential tourist attractions

The feasibility assessment of tourist attractions refers to the Guidelines for the Analysis of Operational Areas of Natural Tourist Attraction Objects (ADO-ODTWA) issued by the Directorate General of Forest Protection and Nature Conservation. These guidelines provide a structured framework for evaluating and developing tourist attractions based on predefined elements and sub-elements, each assigned specific weights. The evaluation process includes the identification of assessment criteria, weight assignment, scoring of sub-elements, and the aggregation of scores to determine overall feasibility.

The purpose of this assessment system is to establish development priorities and facilitate strategic decision-making regarding the management and enhancement of tourist sites. According to Octavianny et al. (2018), a tourism feasibility study not only supports tourism development but also promotes environmental conservation. The integrated development of tourist areas involves optimizing natural and biological resources to enhance the appeal of destinations, which in turn influences tourists' decisions to visit. The specific aspects and their corresponding weights used in the evaluation of tourism potential are presented in Table 1.

3. Research methods

This study is a descriptive research that focuses on visitors and local residents around Langsa City Forest Park, located on Jalan Perumnas, Paya Bujok Seulemak Village, Langsa Baro District, Langsa City, Aceh. The scope of the research lies within the regional economic sector, specifically analyzing the development potential of

tourist attractions in Langsa City Forest Park using the ADO-ODTWA (Analysis of Operational Areas of Natural Tourist Attraction Objects) framework.

The research utilized both primary and secondary data. Primary data were collected directly from respondents through the distribution of questionnaires. Meanwhile, secondary data were obtained from relevant institutional records and published sources.

The population in this study consisted of visitors to Langsa City Forest Park. Since the total population could not be determined with certainty, the sample size was calculated using a formula for unknown populations, resulting in a total of 96 respondents.

Table 1. Aspects and assessment weights for evaluating the potential of tourist objects and attractions

Aspect	Weight	Information
Attractiveness	6	Given the highest weight because attractiveness is the primary factor influencing a person's decision to undertake a tourist journey.
Accessibility	5	Assigned a weight of 5 as it is a crucial factor that enables tourists to access and engage in tourism activities.
Accommodation	3	Assigned a weight of 3 because accommodation is one of the necessary supporting elements in tourism activities.
Facilities and infrastructure	3	Given a weight of 3 as they serve as complementary elements that support tourism activities, although not the main attraction.
Availability of clean water	6	Given the highest weight because the availability of clean water is essential and non-negotiable in any tourism activity.
Regional carrying capacity	3	Assigned a weight of 3 to evaluate the area's capacity to accommodate a certain number of visitors sustainably.
Market share	3	Given a weight of 3 to assess the origin and distribution of visitors, which is useful in determining target markets and tourism planning.

Source: Guidelines for the criteria assessment of natural tourism objects and attractions, Directorate General of Forest Protection and Nature Conservation, 2003.

4. Results and discussion

This study analyzes the tourism development potential of Langsa City Forest Park using the ADO-ODTWA assessment framework. The evaluation includes several key aspects: attractiveness, accessibility, accommodation, facilities and infrastructure, availability of clean water, regional carrying capacity, and market share (see Table 2).

Table 2. Results of ADO-ODTWA assessment

Aspect	Weight	Total Score	Information
Attractiveness	6	960	Potential
Accessibility	5	900	Very potential
Accommodation	3	60	No potential
Facilities and infrastructure	3	165	Very potential
Availability of clean water	6	870	Very potential
Regional carrying capacity	3	330	Very potential
Market share	3	180	Potential

Source: Data processed by authors

1. Attractiveness

Table 2 indicates that Langsa City Forest Park achieved an attractiveness score of 960, reflecting its strong potential to be developed as an ecotourism destination. Several factors contribute to this high score:

a. Natural beauty: The park offers scenic views and a tranquil atmosphere that appeal to nature enthusiasts.

b. Unique natural resources: The diversity of flora and fauna adds to the uniqueness and ecological richness of the area.

c. Abundant greenery: Lush trees and the presence of a lake further enhance the visual appeal of the park.

d. Resource integrity: The environment is well preserved, indicating a high level of ecological integrity.

e. Environmental Awareness: The local community plays an active role in preserving the park's natural environment.

f. Tourism activities: Visitors can enjoy trekking, nature walks, swimming, and relaxation in a clean and refreshing environment.

g. Cleanliness and safety: The area is clean and free from significant security threats, ensuring a comfortable experience for visitors.

2. Accessibility

Langsa City Forest Park scored 900 in the accessibility category. Several sub-indicators contributed to this:

a. Road access: The access road is paved and approximately 3 meters wide, earning a score of 45.

b. Proximity to city center: Located around 10 kilometers from downtown Langsa, the park is easily accessible, receiving another score of 45.

c. Travel time: The short travel time—approximately 5 minutes—adds to its convenience, earning a score of 40.

These factors indicate that access to the park is generally easy and convenient for both locals and tourists.

3. Accommodation

Accommodation received a total score of 60, indicating inadequacy in the vicinity of the park. The evaluation found fewer than 10 hotels or lodging facilities within a 10-kilometer radius, which contributed to the low score. Developing accommodation facilities, especially within or near the park, would significantly enhance the park's appeal and visitor convenience.

4. Facilities and infrastructure

The score for facilities and infrastructure reached 165, reflecting the availability of essential services within a 10-kilometer radius:

a. Basic infrastructure: Health centers, electricity, telecommunication networks, and clean water are accessible and contribute positively to the evaluation (score: 30).

b. Support services: Banks, restaurants, shops, and markets are available and considered adequate (score: 25).

Although these facilities are located outside the immediate park area, their proximity enhances the park's overall accessibility and visitor comfort.

5. Availability of clean water

The availability of clean water received a high total score of 870, highlighting the park's strong water-related infrastructure:

a. Water volume: Scored 150 for abundant water discharge.

b. Distance to water source: Scored 210 due to the close proximity of clean water sources to the tourist area.

c. Distribution feasibility: Scored 180 for the ease of water distribution.

d. Water quality: Scored 150, with water being safe for consumption after minimal treatment.

e. Availability throughout the year: Scored 180, indicating consistent year-round access to clean water.

6. Regional carrying capacity

According to the 2003 guidelines by the Directorate General of Forest Protection and Nature Conservation (PHKA), regional carrying capacity is essential for sustainable tourism. Based on the study:

a. The number of visitors is fewer than 100 per day, which minimizes the ecological impact.

b. Visitor activities—such as photography, camping, and nature walks—are generally eco-friendly and do not cause significant environmental degradation.

This suggests that the park is currently within a safe usage threshold, making it suitable for further ecotourism development.

7. Market share

The park's market share scored 180, showing good promotional potential and visitor diversity:

a. Visitor origin: Scored 75, with most visitors being local students and domestic tourists.

b. Education level: Scored 45, with visitors primarily consisting of high school and university students.

c. Occupation: Scored 60, with most visitors working as small entrepreneurs or in informal sectors.

This demographic profile indicates strong local interest and suggests that promotional efforts could be expanded to reach broader markets. The findings demonstrate that Langsa City Forest Park has high potential as an ecotourism destination. The park excels in key areas such as natural attractiveness, accessibility, environmental cleanliness, and safety. The presence of natural features, biodiversity, and recreational opportunities contributes significantly to the visitor experience.

Accessibility is a major strength due to its proximity to the city center, well-maintained roads, and short travel time. However, the lack of adequate accommodation is a notable limitation that requires attention. Investments in

lodging facilities, either inside the park or nearby, would significantly enhance its competitiveness.

Facilities and infrastructure in surrounding areas support tourism activities, while the availability of clean water ensures basic visitor needs are met. The region's carrying capacity remains within sustainable limits, supported by controlled visitor numbers and eco-friendly activities. Meanwhile, the park's market share, although still concentrated on local visitors, reflects good potential for expansion through targeted marketing and service development.

5. Conclusion

Based on the ADO-ODTWA evaluation, Langsa City Forest Park meets most criteria for ecotourism development. With high scores in attractiveness, accessibility, water availability, and environmental integrity, it offers a solid foundation for sustainable tourism growth. Addressing the accommodation gap and increasing promotion efforts could further enhance its feasibility as a tourism destination. The development of Langsa City Forest Park would not only support local economic growth but also promote environmental conservation and community participation.

Disclosure statement

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