# The Management Strategy of Bale Mangrove Tourism Area in Jerowaru District East Lombok Regency

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Abstract: This study aims to determine effective management strategies for the Bale Mangrove tourism area in Jerowaru, East Lombok Regency. The research employed a descriptive method, focusing on the management agency of Bale Mangrove Tourism. Data were collected through questionnaires, observations, and interviews, and analyzed using a SWOT approach. The findings indicate that the optimal management strategy involves enhancing tourism attractions by preserving the natural environment, developing educational conservation packages, and strengthening cooperation with NGOs and local tourism agencies. These strategies aim to promote sustainable tourism that benefits both the environment and the local community.

Keywords: Tourism Management Strategy, Bale Mangrove, East Lombok, SWOT Analysis.

# I. INTRODUCTION

Indonesia hosts the largest mangrove ecosystems in the world, accounting for approximately 25% of the global mangrove forest area. Despite this, Indonesia is also experiencing the highest rate of mangrove loss worldwide, with up to 80% of the 1,000,000 hectares of mangroves lost due to the expansion of shrimp and fish farming (Hamilton & Casey, 2016; Ilman et al., 2016). Mangrove forests are vital coastal ecosystems that thrive in tidal areas, such as protected beaches, lagoons, and river estuaries. These ecosystems are characterized by salt-tolerant plant communities that are submerged at high tide and exposed during low tide (Riwayati, 2014).

West Nusa Tenggara Province, located in Indonesia, contains approximately 18,356.89 hectares of mangrove forests, with 3,304.64 hectares situated on Lombok Island. These mangrove areas are distributed across West Lombok (438.54 ha), Central Lombok (202.68 ha), and East Lombok (2,663.42 ha) Regencies (Center for Land Rehabilitation and Conservation Dodokan Moyosari NTB, 2006). The largest concentration is found in East Lombok Regency, encompassing areas such as Jerowaru, Keruak, Pringgebaya, and Sambelia (East Lombok Regional Regulation Number 10 of 2006)

Mangrove forests provide a range of direct and indirect benefits, which can be broadly categorized into ecological, economic, and physical functions. Ecologically, mangroves protect terrestrial and marine ecosystems, provide habitats for various species, prevent erosion, control seawater intrusion, and maintain water quality (Yunus, 2016). Economically, they are a source of timber and non-timber products such as honey, medicinal plants, food, and materials for fuel, which contribute to local economies. Additionally, mangroves support coastal economic activities, including fish production, salt-making, and ecotourism, as well as contributing to national exports (Kusmana, 2003). Physically, mangroves act as natural windbreaks, filter pollutants, control floods, and prevent seawater from infiltrating the soil (Romimohtarto, 2001).

East Lombok Regency is renowned for its coastal natural resources, particularly its mangrove forests. Among these is the Bale Mangrove Nature Tourism area located in Poton Bako Hamlet, Jerowaru Village. This ecotourism destination has been recognized for its sustainable practices, receiving several awards, including from the Ministry of Maritime Affairs

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and Fisheries for its efforts in supporting the prevention of destructive fishing practices in 2021. It has also been honored as the Best Local Champion by the Ministry of Tourism and Creative Economy, under the Sadar Wisata 5.0 Program, and as an Inspirational Maritime Tourism Regency.

The Bale Mangrove Nature Tourism area spans approximately 4 hectares, featuring both naturally occurring and rehabilitated mangrove forests along the coastline. Efforts to preserve and develop this area are ongoing, driven by local community groups (Pokdarwis) aiming to enhance community welfare through sustainable tourism. The area is well-equipped with facilities such as mangrove boardwalks, gazebos, homestays, stalls, counters, prayer rooms, and restrooms. A 300-meter-long wooden pathway supported by concrete pipes allows visitors to explore the mangrove forest, providing access to photo spots, hammocks, tree houses, and swings. Visitors can also engage in various activities, including boat tours, mangrove planting, and viewing the coastal scenery and local fish farms.

As a relatively new tourist attraction, it is crucial to evaluate key aspects of the management of Bale Mangrove Nature Tourism, including its appeal, facilities, accessibility, and additional services. Moreover, it is essential to determine whether current management practices effectively support sustainable tourism development. Therefore, this study aims to identify and formulate strategic management approaches to optimize the potential of Bale Mangrove Nature Tourism, ensuring long-term sustainability and community benefits.

#### II. RESEARCH METHODS

#### A. Data Collection

This study utilized a qualitative approach, gathering data through structured interviews and questionnaires. The questionnaires consisted of a series of written questions designed to extract information relevant to the management strategies of Bale Mangrove Nature Tourism. Respondents were selected using a purposive sampling technique, which involves choosing participants based on specific criteria (Sugiono, 2015). In this case, respondents were individuals who are directly involved in the management of Bale Mangrove, ensuring a deep understanding of the operational and strategic aspects.

The management team of Bale Mangrove Nature Tourism consists of 10 members, but based on the official management structure, 8 key individuals were chosen as respondents. These included the head of management, secretary, treasurer, and representatives from the cleaning, public relations, development, security, and media sections.

### **B.** Data Analysis

The primary analytical method used in this study was a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis. This method allows for the systematic evaluation of internal and external factors affecting the management of Bale Mangrove Nature Tourism and helps formulate strategies that leverage strengths and opportunities while mitigating weaknesses and threats (Rangkuti, 2017).

Weight Assignment: Each identified factor was assigned a weight ranging from 0.0 (not important) to 1.0 (very important), reflecting its significance in the overall management strategy. The total weights for internal and external factors were constrained to a maximum of 1.0 each (Rais, 2009).

The process of SWOT analysis involved several key steps:

- a. In column 1, list at least 5-10 weaknesses and strengths, as well as threats and opportunities.
- b. In column 2, each factor is given a weight ranging from 0.0 (not important) to 1.0 (very important), according to the impact of these factors on existing ecotourism management.
- c. In column 3, the evaluation of each factor is calculated by giving a scale of 4 (very good) to 1 (not good) according to the impact of these factors on ecotourism management. Positive variables have a value between +1 and +4 (very good) while negative variables have the opposite value.
- d. The weight in column 2 is multiplied by the score in column 3 to obtain the factor weight in column 4. The result is a weight point for each factor whose value ranges from 4.0 (very good) to 1.0 (not very good).
- e. column 5 contains comments or notes on why the factors in column 1 were selected and how the weights were calculated.

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f. The summation of the weight points in column 4 to obtain the total weight points that show how the analysis unit addresses the external and internal strategic factors is done in the form of a matrix.

Formulate internal strategic factors in terms of the company's strengths and weaknesses. The steps are as follows:

- a. Identify the factors that make up the company's strengths and weaknesses in column 1.
- b. Weight each factor on a scale of 1.0 (most important). Based on the influence of these factors on the company's strategic position. (all weights should not exceed a total score of 1.00).
- c. Count the points in column 3 for each factor on a scale of 5 to 1. According to the influence of the factor on the situation of the company in question, positive variables (all variables belonging to the strength category) score +1 to +4 (very good) compared to the industry average or main competitors. As for negative variables, if the company's weakness is very significant compared to the sector average, the score is 1, while if the weakness is below the sector average, the result is 4.
- d. Then multiply the weight in column 2 by the score in column 3 to get the factor weight in column 4. The result is the weight score of each factor, which ranges from 4.0 to 1.0.
- e. Column 5 contains comments or notes on the reasons for selecting a particular factor and how the weights were calculated.
- f. The sum of the weights is shown in column 4, to obtain the sum of the weights of the company in question. This total score shows how the company reacts to its internal strategic factors. The total score can be used to compare this company with other companies in the same industry group.

Table 1. SWOT Analysis Matrix

Internal Factors  External Factors	Strength (S)  • Identify internal strengths	Weaknesses (W) • Identify internal weaknesses		
Opportunities (O)	Strategi S-O	Strategi W-O		
• Identify external opportunities	Develop strategies that leverage strengths to capitalize on opportunities.	Formulate strategies that address weaknesses by taking advantage of opportunities.		
Threats (T)	Strategi S-T	Strategi W-T		
• Identify external threats	Create strategies that utilize strengths to mitigate or overcome	Design defensive strategies to minimize weaknesses and avoid		
Strategic Approaches	threats.	threats.		

Source: Rangkuti (2004).

A combination of strategies between internal and external factors (Rangkuti, 2013):

- a. S-O strategy, this strategy is based on the way of thinking by using strengths to get the maximum opportunity.
- b. S&T strategy, which aims to use existing assets to overcome potential threats.
- c. W-O strategy, this strategy is implemented by taking advantage of existing opportunities and minimizing existing weaknesses.
- d. W-T strategy, this strategy is based on defensive activities that seek to minimize existing vulnerabilities and avoid threats.

# III. RESULTS AND DISCUSSION

# A. Jerowaru Mangrove Bale Tourism Management Strategy

Based on the results of the interviews conducted, the management strategy for Bale Mangrove Jerowaru Tourism was formulated using SWOT analysis, which identifies internal factors (Strengths and Weaknesses) and external factors (Opportunities and Threats). The analysis results are grouped into internal and external factors, as presented in Table 2 below.

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Table 2. Matrix of Internal and External Factors of Jerowaru Mangrove Bale Tourism

	Internal Factors		External Factors		
	Strengths		Opportunities		
1. 2.	Natural beauty of the area.  Strong cooperation between the community and	1.	High interest from both foreign and local tourists.		
3.	stakeholders in tourism management.  Easy accessibility to the location.	2.	Partnerships with stakeholders to promote tourism.		
4.	Inclusion of conservation education in tour packages.	3.	Community engagement in tourism management.		
	Weaknesses		Threat		
1. 2.	Suboptimal promotion of tourist attractions.  Lack of enforced visitor numbers.	1.	Presence of numerous competing tourist attractions.		
3.	Limited human resources in management.	2. 3.	Decreasing tourist interest.  Insufficient environmental awareness among tourists.		

#### B. Internal Strategic Factor Matrix (IFAS)

The Internal Strategic Factor Analysis Summary (IFAS) illustrates how internal factors are utilized to formulate management strategies for Bale Mangrove Jerowaru tourism. The internal factors are categorized into strengths and weaknesses. Each factor was assigned a weight from 0.0 (not important) to 0.1 (very important), reflecting its significance in the overall strategy. Following this, a classification or rating of 1 to 5 was conducted during the interviews, where respondents assessed the urgency of each factor.

Table 3. Internal Strategy Factors of Bale Mangrove Jerowaru

No	<b>Internal Strategy Factors</b>	Weight	Rating	Score
	Strengths			
1	Natural beauty of the area.	0.16	4	0.64
2	Cooperation between the community and stakeholders.	0.16	4	0.64
3	Accessibility to the location.	0.16	4	0.64
4	Conservation education included in tour packages.	0.16	4	0.64
	Weaknesses			
1	Suboptimal promotion of tourist attractions.	0.16	4	0.64
2	Lack of enforced visitor numbers.	0.12	3	0.36
3	Limited human resources for management.	0.08	2	0.16
	Total	1	25	3.72

# C. External Strategic Factors Matrix (EFAS)

The External Strategic Factors Matrix (EFAS) serves as a critical tool for analyzing how external factors impact the management strategies of Bale Mangrove tourism. This matrix categorizes external influences into two primary groups: opportunities and threats. The analysis begins with the identification of relevant external factors, which are subsequently assigned a weight on a scale from 0.0 (not important) to 1.0 (very important), reflecting their relative significance.

To further assess these factors, a questionnaire was administered to the managers of Bale Mangrove Jerowaru, who rated each factor on a scale of 1 to 5 based on its level of urgency. This dual approach of weighting and rating allows for a comprehensive evaluation of the external strategic factors. The next step involves calculating a classification score by multiplying the assigned weight by the corresponding rating for each factor. The results of this analysis are summarized in Table 4, providing valuable insights into the external strategic factors that influence the management of Bale Mangrove tourism.

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**Table 4. External Strategy Factors for Bale Mangrove Tourism** 

No	External Strategy Factors	Weight	Rating	Score
	opportunities			
1.	High interest from foreign and local tourists.	0.19	4	0.76
2.	2. Partnerships with stakeholders for tourism promotion.		4	0.76
3.	Community engagement in tourism management.	0.19	4	0.76
	Threat			
1.	Presence of more attractive competing tourist attractions.	0.14	3	0.43
2.	Decreasing interest from tourists.	0.10	2	0.19
3.	Insufficient environmental awareness among tourists.	0.19	4	0.76
	Total	1	21	3.66

To determine the strategic position of Bale Mangrove Jerowaru Tourism, the calculated values for internal and external factors were plotted on an IFAS (Strengths and Weaknesses) versus EFAS (Opportunities and Threats) matrix. The results of this analysis are summarized in Table 5 below.

Table 5. Recapitulation of strengths, weaknesses, opportunities and threats

Description	Value	Description	Value	
Internal Factors		External Factors		
1. Strengths	2,56	1. Opportunities	2,28	
2. Weaknesses	1,16	2. Threats	1,38	

Based on the recapitulated values, the strengths of Jerowaru Bale Mangrove Tourism exceed its weaknesses, and the opportunities outweigh the threats, indicating a favorable strategic position. The analysis shows that:

Strengths - Weaknesses (Internal factors) = 2.56 - 1.16 = 1.4

Opportunities - Threats (External factors) = 2.28 - 1.38 = 0.9

The resulting SWOT analysis positions Bale Mangrove Jerowaru Tourism in Quadrant I (Figure 1), which indicates that an aggressive growth strategy is warranted. This quadrant is characterized by the ability to leverage existing strengths to capitalize on opportunities (Rangkuti, 2015).

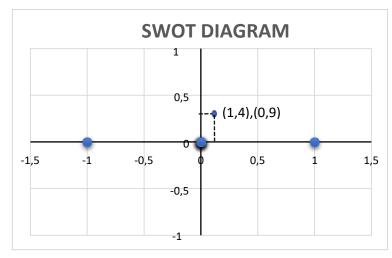


Figure 1. SWOT Diagram

#### D. SWOT Matrix

Based on the analysis of the strategic quadrants, the management strategy for Jerowaru Bale Mangrove Tourism falls within Quadrant I, also known as the SO (Strength-Opportunity) strategy. This quadrant indicates that the area possesses significant strengths and opportunities, supporting an aggressive growth policy, often referred to as a Growth-Oriented Strategy.

According to Rangkuti (2015), Quadrant I represents a highly favorable situation, where the organization can leverage its strengths to capitalize on existing opportunities. This positioning allows for the optimization of the tourism potential at Jerowaru Mangrove Bale by actively engaging the community in the management efforts. By fostering community involvement, the management can enhance sustainability and ensure that tourism benefits the local population while protecting the mangrove ecosystem.

**Table 6. SWOT Matrix Results** 

Table 6.5 WOT Matrix Results					
	Y 1	Strengt	h (S)	Weakne	ess (W)
	Internal  External	<ol> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> </ol>	Natural beauty of the area. Conservation education for visitors is part of the tour package. Strong cooperation between the community and stakeholder in tourism management. Easy accessibility to the location.	<ol> <li>2.</li> <li>3.</li> </ol>	Lack of enforced visitor numbers. Limited human resources in management. Suboptimal Promotion of tourism attractions.
Opportu	unities (O)	S-O		W-O	
3.	High interest foreign and local tourists. Partnerships with stakeholders for tourism Promotion. There is cooperation between the Ministry of Tourism and Creative Economy, PLN Peduli and the Ministry of Marine Affairs and Fisheries in funding tourism management.		Optimize the appeal of Bale Mangrove Tourism by leveraging its natural beauty while maintaining environmental integrity. Develop educational and engaging tour packages focused on conservation. Foster collaboration with NGOs and tourism agencies to enhance tourism management.	<ol> <li>2.</li> <li>3.</li> </ol>	Increase promotional efforts to attract both national and international tourists.  Improve facilities and infrastructure, including photo spots and recreational activities.  Provide training for human resources to ensure sustainable management practices.
Threat (	(T)	S-T		W-T	
1. 2.	Decreasing interest from tourists. Insufficient environmental	1.	Enhance promotional efforts to compete effectively with other tourist destinations.	<ol> <li>2.</li> </ol>	
3.	awareness among tourists.  Presence of more attractive competing tourists attractions.	2.	Introduce new attractions and activities to maintain visitor interest.	3.	increasing tourism promotion. Considering the sustainability of nature in Jerowaru Bale Mangrove Tourism.

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The SWOT analysis for Bale Mangrove Tourism (Table 6) reveals a comprehensive understanding of the strengths, weaknesses, opportunities, and threats that impact its management and development. The strategies derived from this analysis can guide decision-making and enhance the overall effectiveness of tourism initiatives in the area, as follow:

- 1. SO (Strength -Opportunity) strategies
- a. Optimize the appeal of Bale Mangrove Tourism by leveraging its natural beauty while maintaining environmental integrity.

This strategy capitalizes on the inherent strengths of Bale Mangrove, such as its stunning landscapes and biodiversity. By promoting eco-friendly tourism practices, the destination can attract visitors who value sustainability while preserving its ecological balance.

b. Develop educational and engaging tour packages focused on conservation.

Creating educational tour packages not only enriches the visitor experience but also raises awareness about the importance of mangrove ecosystems. Engaging activities can foster a deeper connection between tourists and the environment, encouraging responsible behavior.

c. Foster collaboration with NGOs and tourism agencies to enhance tourism management.

Collaborating with NGOs and tourism agencies can bring in expertise, resources, and networks that enhance tourism management. This partnership can lead to improved marketing strategies, better visitor services, and increased funding for conservation efforts.

- 2. WO (Weakness Opportunity) strategies
- a. Increase promotional efforts to attract both national and international tourists.

By addressing the weakness of limited visibility, enhanced promotional campaigns can significantly increase tourist numbers. Utilizing digital marketing, social media, and partnerships with travel influencers can broaden the reach and appeal of Bale Mangrove Tourism.

b. Improve facilities and infrastructure, including photo spots and recreational activities.

Upgrading facilities is essential for enhancing the tourist experience. By providing well-maintained amenities and unique recreational opportunities, the destination can attract a wider range of visitors, encouraging longer stays and repeat visits.

c. Provide training for human resources to ensure sustainable management practices.

Investing in human resources through training ensures that staff are equipped with the knowledge and skills necessary for sustainable tourism management. This can lead to better service delivery and a more informed approach to conservation.

- 3. ST (Strenght Threats) strategies
- a. Enhance promotional efforts to compete effectively with other tourist destinations.

Strengthening promotional activities is crucial in a competitive tourism market. By highlighting the unique aspects of Bale Mangrove, such as its ecological significance and recreational offerings, the destination can differentiate itself from other tourist spots.

b. Introduce new attractions and activities to maintain visitor interest.

To combat the threat of declining visitor numbers, it is vital to continually innovate and introduce new attractions. This could include seasonal events, guided tours, or interactive experiences that keep the destination fresh and appealing.

- 4. WT (Weakness -Threats) strategies
- a. Address infrastructure shortcomings to improve the overall tourist experience.

Tackling infrastructure weaknesses is imperative for enhancing visitor satisfaction. Improvements in transportation, signage, and amenities will create a more welcoming environment and encourage positive reviews and recommendations.

b. Increase environmental awareness campaigns to educate tourists on conservation.

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Given the threats posed by environmental degradation, raising awareness among tourists is essential. Campaigns that inform visitors about conservation practices and the significance of mangrove ecosystems can foster a culture of respect and responsibility.

c. Considering the sustainability of nature in the tourism area Bale Mangrove.

The strategies derived from the SWOT analysis provide a clear roadmap for enhancing the management and development of Bale Mangrove Tourism. By leveraging strengths and opportunities while addressing weaknesses and threats, stakeholders can create a sustainable and attractive tourism destination that benefits both the local community and the environment. Implementing these strategies will not only improve the tourist experience but also contribute to the long-term conservation of the mangrove ecosystem.

In addition, based on the results of the SWOT analysis, it is evident that the management of Bale Mangrove Tourism falls within Quadrant I. The formulated SO strategy alternatives are as follows:

- 1. Optimize the appeal of Bale Mangrove Tourism according to its potential while maintaining its natural integrity. The management of tourism resources should not only utilize these resources but also require an integrated effort to organize the surrounding environment, preserve its existence and beauty, monitor, control, and restore the beauty of these resources (Joyosuharto, 1995). This can be achieved by maximizing existing activities such as mangrove tracking and canoeing. Additionally, it is important to enhance the existing facilities such as photo spots, swings, tree houses, and others.
- 2. Create more attractive and educational tour packages related to mangrove forests. The aim of education is to provide a comprehensive understanding of the ecosystem diversity present in the area so that visiting tourists will gain experience and knowledge about mangrove forest management. Tourism activities should always go hand in hand with efforts to raise community awareness and change public behavior regarding the need for conservation of natural resources, biodiversity, and ecotourism. This is essential to attract visitors to the offered tour packages, allowing them to learn about the topics presented in these packages.
- 3. Optimize collaboration with NGOs, the Tourism Office, or relevant agencies for the management of Jerowaru Mangrove Tourism. Tourism management is not solely the responsibility of the tourism awareness group; collaboration is also needed in the development and management of tourism. According to Gray in Haryono (2012), cooperation is defined as unity, collaboration, division of tasks, equality, and responsibility, where the cooperating parties share the same goals, perceptions, and desires to continue, mutually benefit, and act with honesty. The management of Bale Mangrove Tourism should optimize collaboration to further improve the facilities of Bale Mangrove Tourism.

## IV. CONCLUSION

The strategies employed in the management of the Jerowaru Bale Mangrove Tourism area include the following:

- a) Optimizing the tourism appeal by leveraging its inherent potential while preserving its natural integrity. This involves enhancing the unique features of the area that attract visitors, ensuring that its ecological balance is maintained.
- b) Developing more engaging and educational tour packages focused on mangrove conservation for visitors. These packages aim to provide tourists with a deeper understanding of the importance of mangrove ecosystems, fostering awareness and appreciation for environmental conservation.
- c) Enhancing collaboration with NGOs, the Tourism Office, and relevant agencies for the effective management of Bale Mangrove Tourism. By fostering partnerships, the management can benefit from shared resources, expertise, and coordinated efforts to improve tourism facilities and services.

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