



Development of Manikin Beach as an Eco-Friendly Tourism Destination in Kupang Regency

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Abstract— Development of an environmentally friendly tourism destination is an appropriate concept for tourism development in Indonesia, particularly in the Nusa Tenggara Timur region. It can be said that environmentally friendly tourism at Manikin Beach in Kupang Regency serves as a benchmark for the success of the development and growth process of a tourism destination around the city of Kupang. However, due to the suboptimal development and management of Manikin Beach, there is a need for intervention through the development of eco-friendly tourism to add value that can be marketed to tourist. This research employs a qualitative research approach using the research instrument of interview guides conducted with relevant stakeholders. The findings of this study indicate that the environmental condition of the Manikin Beach area is no longer attractive due to lack of cleanliness and inadequate facility arrangement. Additionally, development based on zoning needs to be carried out by implementing environmentally friendly/ecotourism criteria to achieve an environmentally friendly tourism destination.

Keywords; *Development, Tourism Destination, Environmentally Friendly*

I. INTRODUCTION

Environmental-friendly tourism is a concept of tourism development that focuses on preserving the environment and avoiding environmental degradation. It also aims to benefit the local community by showcasing the natural beauty of the destination. The goal of developing environmentally friendly tourism is to create a clean and comfortable environment for tourists to enjoy the natural scenery. The success of such development relies on the collaboration of various stakeholders, including the local community, stakeholders, and local government.

In the province of East Nusa Tenggara, specifically in the Timor region, Kupang Regency boasts several coastal and marine tourism destinations. One of them is Manikin Beach, located not far from the city center of Kupang, and is currently undergoing development by the local government. However, the condition of this tourism site appears to be neglected and unattractive.

Local residents' involvement in environmental preservation around the Manikin Beach tourism area has not been comprehensive. Additionally, the lack of supporting facilities and poor facility management contribute to the lack of interest from tourists in visiting this beach destination. This indicates a lack of sustainable tourism practices being implemented at this site.

From a cleanliness perspective, there is visible litter around the coastal area, tarnishing the overall view. This is due to insufficient awareness among the local community about proper waste disposal. Furthermore, direct oversight from the local government regarding environmental preservation at this beach tourism site seems to be lacking.

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Manikin Beach has not been optimally developed and managed, necessitating intervention in the form of environmentally friendly tourism management and development. This is crucial to enhance its appeal and attract more tourists. Therefore, this research aims to: (1) assess the current condition of Manikin Beach as a tourism destination, (2) understand the efforts made in developing environmentally friendly tourism at Manikin Beach, and (3) identify potential environmentally friendly tourism development strategies for Manikin Beach.

II. LITERATURE REVIEW

A. Tourism Development

According to Prayogi (2020), development is a conscious and planned effort to improve something that is ongoing or to add new types of products or services. Essentially, development is a process of enhancing and improving something that exists. The development of tourism attractions involves activities such as building, maintaining, and preserving plantations, facilities, and other amenities (Prayogi, 2020). Meanwhile, tourism development is an effort to enhance or advance a tourism attraction to make

it better and more appealing in terms of its physical location and the elements within it, in order to attract the interest of visitors (Barreto & Giantari, 2015).

Regarding the aspects of tourism development according to Spillane as cited in Sari (2011), there are five crucial elements, namely; a) Attractions b) Facilities c) Infrastructure d) Transportation e) Hospitality.

Suwena (2010) explains that a tourism activity is considered sustainable if it meets the following criteria: a) Ecological sustainability, which means that tourism development does not cause damage to the local ecosystem. b) Social acceptability, implying that the capacity of the local population to accept the tourism effort without causing social conflicts. c) Cultural adaptability, indicating that the local community can adapt to the different cultural aspects of the tourists (tourist culture). d) Economic benefits, ensuring that the profits derived from tourism activities contribute to the welfare of the local community.

The concept of organizing Sustainable Tourism Destination areas starts with identifying the land use in the area using the Tripartite Concept (Cooper, 1993), which consists of three parts: a) Core Zone or Main Zone, this is the core area or attraction of tourism region that must be preserved and provides the unique character or theme of the tourism area. b) Buffer Zone, this is a support zone consisting of natural areas in the form of landscapes that function as a buffer or balance for activities and facilities within the area. The buffer zone surrounds or adjoins the core area and is identified to protect the core area from the negative impacts of human activities. Only activities compatible with conservation goals are allowed in this zone. c) Service Zone or Public Zone, this is the service area typically used for developing facilities and services for commercial purposes. Activities promoting sustainable management of natural resources and sustainable development models are promoted and developed here. The concept, based on the zoning as described in this theory, forms the basis for the development of Manikin Beach as an environmentally friendly tourist destination.

B. Beach Tourism

According to Bambang Triatmodjo (2008), a beach is an area along the water's edge influenced by the highest tides and lowest tides, while the coast refers to the land area along the sea influenced by maritime activities. Meanwhile, Yulianda (2007) defines beach tourism as a form of tourism that emphasizes coastal resources and the culture of coastal communities, such as recreation, sports, and enjoying the scenery. On the other hand, marine tourism focuses on underwater resources and the dynamics of the sea.

C. Tourist Attractions

Ridwan (2012) describes tourist attractions as anything that possesses uniqueness, beauty, and value, including the diversity of natural resources, culture, and human-made creations that become the targets or destinations of tourists. According to Fandeli as cited in Asriandy (2016), tourist attractions are embodiments of human creation, ways of life, cultural arts, national history, and places or natural conditions that have appeal to tourists. Sinarta (2010) suggests that a tourist attraction is deemed worthy of development if it meets certain criteria, including: (a) Attraction: Characteristics and unique features that attract tourists to visit the destination, (b) Accessibility: Ease of reaching the tourist destination, (c) Amenity: Facilities available at the tourist attraction, such as hotels and restaurants, (d) Ancillary: Supporting elements, including organizations or entities managing the tourist attraction.

The objectives of developing tourist attractions, as outlined by Tirtadinata and Fachruddin as cited in Irawan (2010), include: (a) Enhancing aesthetic value and natural beauty, (b) Facilitating the development of tourist attractions, (c) Providing recreational value, (d) Promoting scientific activities and knowledge development, (e) Increasing profitability.

D. Environmentally Friendly

The concept of pro-environmental behavior, as defined by Firmiana (2012), refers to conscious efforts made to minimize the negative impact of one's actions on nature and the surrounding environment. Pro-environmental behavior is demonstrated through activities such as using recyclable materials, conserving energy, using eco-friendly transportation, purchasing and using environmentally friendly products, engaging in tree planting initiatives, and joining pro-environmental organizations, particularly among urban populations (United Nations, 2004).

Environmental conservation involves the preservation and balanced utilization of the capacity, quality, function, and capabilities of the environment (MIPL, 2010). The objectives of conservation are to (1) achieve the sustainability of biological natural resources and their ecosystem balance, thereby supporting efforts to enhance human well-being and quality of life, and (2) preserve the capacity and sustainable utilization of biological natural resources and their ecosystems in harmony and balance.

Green Tourism Concept The concept of Green Tourism refers to any tourism activities conducted in natural areas, where the primary focus is on natural resources, or tourism that is considered environmentally responsible in nature. This means that a crucial function of green tourism is to ensure the conservation of both large and small areas and the related wildlife for future generations (Votsi, 2014). Tourists who understand the concept of environmentally friendly practices exhibit a critical attitude toward environmentally harmful consumption activities and seek to incorporate this awareness into their way of traveling (Hasan, 2014). The concept of green tourism emphasizes environmental preservation, targeted at tourists who have a strong sense of responsibility for the environment they visit (Arismayanti, 2015). Therefore, the environmental aspect is a crucial consideration in tourism activities (Dahuri, 2003).

In the Quebec Declaration, ecotourism is described as a form of tourism that adopts the principles of sustainable tourism, which differentiates it from other forms of tourism (Damanik & Weber, 2006). According to Suprayitno (2008), ecotourism is a

responsible natural tourism model in areas that are still pristine or naturally managed, with the goal of enjoying the beauty of nature while involving educational elements and supporting conservation efforts to enhance the local community's economic income.

Ecotourism entails principles that include fostering environmental and cultural awareness, minimizing impacts, providing positive experiences for both tourists and recipients, and ensuring benefits and empowerment of the local community or surroundings (Tamelan & Harijono, 2019). According to the Directorate General of Tourism Destination Development (2009), ecotourism principles consist of conservation principles, community participation principles, tourism principles, education principles, as well as conservation and tourism principles.

III. RESEARCH METHOD

This research is a qualitative study, where the aim is to understand the meaning of an event or situation according to the researcher's perspective. The focus is on appreciation and the goal is to comprehend the researched object deeply. The data collected in this study are sourced from informants and are developed using the snowball method. It starts with initial information search and expands progressively with a specific purpose until the collected data is considered sufficient (Gunawan, 2013).

The data collection technique used in this research is participatory observation, where the informants provide information to the researcher about the actual conditions that commonly occur at Manikin Beach and the efforts made in developing eco-friendly tourism in the coastal area. Another technique used in this research is interviews and documentation, following the interview guidelines and using documentation tools. The data analysis technique in this research includes data collection, data presentation, triangulation, data reduction, and drawing conclusions.

The research subjects were selected using snowball sampling technique, aiming to obtain accurate information about the current conditions and efforts made in developing eco-friendly tourism at Manikin Beach, as well as the potential eco-friendly tourism development that can be applied to the beach. Additionally, it facilitates the researcher in acquiring further information related to the research findings. This research also employs purposive sampling to achieve its objectives. The purposive technique in this research requires 4 informants.

The researcher is the primary instrument in this study due to its qualitative nature. Other essential instruments in this research include observation guidelines, interview guidelines, and tools such as writing materials, a camera, and a voice recorder. Data analysis techniques in this research involve data collection, data presentation, triangulation, data reduction, and drawing conclusions. Triangulation is used to ensure the validity of the interview results.

IV. RESEARCH FINDINGS

A. *Current Environmental Conditions at Manikin Beach*

The findings of this research indicate that both visitors and food vendors have not been diligent in maintaining cleanliness around the Manikin Beach area, resulting in a significant amount of litter scattered along the beach. The most common type of litter found is beverage bottles. Additionally, signs of coastal erosion have begun to emerge, which could potentially erode the coastal land. Furthermore, there are issues concerning the availability of clean water, waste management, and wastewater management in the area.



Fig 1. Manikin Beach

B. *Involvement of the Community and Local Government in the Development of Manikin Beach*

The role of the community in the development of Manikin Beach involves the active participation of the local residents in the tourism activities within the beach area. This is evident from the growth of various businesses such as food stalls, parking services, fish grilling services, portable toilet rentals, and more. These economic activities provide increased income opportunities for the local community and create job opportunities within the vicinity of the beach tourism site.

The role of the local government, particularly the Tourism Office of Kupang Regency, is crucial in the development of Manikin Beach. Their involvement spans from policy-making to on-site actions at the beach site. The government needs to

exhibit competence, innovation, and creativity in the development of the beach. It should also focus on maintaining the ecosystem and the quality of service facilities at the beach, leading to revenue generation for the local budget. Moreover, the government's role involves the preservation and conservation of the environmental ecosystem in the beach area, even if these efforts are not yet optimized.

Manikin Beach serves as a tourism destination that falls under the jurisdiction of the Tourism Office of Kupang Regency. The office should actively engage in the development of the beach area and play a pivotal role. However, the workforce predominantly comes from the local community residing near the beach. While promotional activities have been initiated by the management to attract tourists, such as local and regional advertising, these efforts are not being maximally executed.

The existing infrastructure at Manikin Beach includes restroom facilities, parking areas, and food and beverage stalls. The service facilities cater to the essential needs of tourists, but additional facilities like information services, healthcare services, security amenities, and others are planned to be provided to enhance the overall tourist experience.

Various initiatives have been taken to promote Manikin Beach to the public through local and regional print and online media, as well as electronic platforms. Effective promotion necessitates the establishment of informative media channels. The efforts by the Tourism Office of Kupang Regency include participation in national-level exhibitions, the publication of various tourism locations on the internet, and the creation of promotional tourism videos. The organization also conducts cultural and art festivals to attract tourists and create a lively atmosphere at the beach.

C. Development of Eco-Friendly Tourism at Manikin Beach

Based on the potential of Kupang Regency, the type of tourism activity with potential for development at Manikin Beach is eco-friendly tourism that focuses on harnessing the beach's potential while prioritizing environmentally friendly development. During the development process, attention must be given to natural factors and the saturation level of the environment that could lead to coastal environmental damage, such as mangrove destruction and beach pollution due to scattered trash.

Manikin's Beach development has the potential to become an eco-friendly tourism area, although not all elements contributing to an attractive eco-friendly tourism attraction have been fully developed. The development is heavily influenced by environmentally sustainable tourism practices. The more sustainable and environmentally conscious the tourism practices are, the better the conservation of the eco-friendly aspects of the tourism site. Whether or not a beach tourism area becomes eco-friendly significantly depends on the development and management efforts towards the tourism site. In this regard, the developers and managers need to skillfully package the tourism site as an eco-friendly area to make it marketable.

So far, there hasn't been any skills training provided to the local community surrounding Manikin Beach. However, if the local community can be empowered, it can add value to the Manikin Beach tourism site. For example, the community's craftsmanship can be sold as souvenirs. Since most of the community relies on sea products for sale to tourists, this could be an additional source of income. Apart from assessing potential, the management should also address the issues in the development of Manikin Beach. In implementing land utilization, development should consider the surrounding environment to prevent environmental damage due to climate change causing sea level rise, leading to beach erosion. Additionally, the presence of numerous tourists and food vendors not properly maintaining cleanliness along the beach results in scattered litter.

Building an eco-friendly beach tourism area is a long-term investment. The results may not be immediately felt but will be experienced in the future. Hence, eco-friendly areas attract more tourists due to well-maintained and appealing facilities surrounded by lush greenery, making them more enticing to visitors. The efforts by the Tourism Office of Kupang need to be intensified. Improving the quality of human resources to provide professional services while focusing on the environmental protection of Manikin Beach is important. Promotion efforts should also be enhanced.

Public facilities such as clean water supply, electricity, and traffic routes are generally available, with clean water supply being the primary concern. The condition of the coastal area around Manikin Beach remains underdeveloped. Litter scattered inappropriately disrupts the view. Furthermore, there is a lack of greenery around the beach area, including mangroves and other vegetation. Essential modern amenities like hospitals, pharmacies, banks, and shopping centers are still insufficient. Most of these facilities are approximately 1 km away from the tourism site. Transport options to Manikin Beach from public transportation stops include motorcycle taxis. The road leading to the location is in good condition, being paved and strategically located not too far from Kupang City.

Based on the research results above, it is evident that there is a lack of proper facility planning based on zoning. Therefore, it is necessary to implement facility zoning at Manikin Beach according to the concept of organizing sustainable tourism destination areas through the identification of land use in the area using the Tripartite Concept (Cooper, 1993). The zoning of Manikin Beach should be as follows:

1) *Core Zone; The Core Zone is the area where the main attractions or tourism highlights are located. The main tourist activities in this area must be equipped with essential facilities. At Manikin Beach, the Core Zone can be developed with attractions such as water sports like jet skiing, snorkeling, banana boat rides, parasailing, as well as sanitary facilities (MCK) and diving. All these attractions must be integrated in a way that doesn't disrupt the existing natural potential.*

2) *Buffer Zone; The Buffer Zone is the area between two different types of activities, namely the main activities and supporting facilities. The main purpose of this zone is to maintain the image and comfort of the tourist destination and its visitors. The Buffer Zone can include coastal areas and forests. No disturbances are allowed in this zone. Development in the Buffer Zone at Manikin Beach could include:*

a) *The preservation of mangrove forests and ecosystems in the surrounding area, which can reduce coastal erosion and*

provide a supply of clean water,

b) *Maintaining the cleanliness of the coastal environment, which will enhance the value and image of the area and,*

c) *creating green zones along the road leading to the beach, to enhance the view on the way to the beach and reduce visitor fatigue during the journey.*

Through the proper preparation of facility zoning, efforts in the development and management of Manikin Beach can be more focused and sustainable. It's important to involve the local community, local government, and management in implementing zoning and environmental maintenance throughout the Manikin Beach tourism area. This will support the enhancement of the beach's value and image while preserving the sustainability of the natural environment and its surroundings.

3) *Service Zone; The Service Zone is the area where all activities and supporting facilities are placed or grouped. The development of this zone includes the following aspects:*

a) *Hotels: Constructed with a view of the beach, utilizing the fresh sea breeze for natural cooling, reducing the need for air conditioning,*

b) *Resorts: Designed with a "go green" theme, optimizing natural lighting and positioning to minimize energy usage,*

c) *Restaurants: Built with green surroundings to create a refreshing ambiance,*

d) *Meeting Rooms: Created with a nature-themed atmosphere,*

e) *Parking: Expansion of parking areas surrounded by greenery without disrupting the ecosystem,*

f) *Entrance Gate: Enhanced with artistic elements for an appealing appearance,*

g) *Souvenir Shops: Offering marine-themed souvenirs that do not harm the surrounding ecosystem,*

h) *Worship Facilities: Ensuring the cleanliness of religious facilities is maintained,*

i) *Management Office: Constructed with a beach view and greenery around the office,*

j) *Spa: Designed with a forest-themed concept,*

k) *Condominiums: Built around green trees and equipped with a swimming pool,*

l) *Health Center: Established for the health and safety of tourists,*

m) *Children's Play Area: Equipped with tables, chairs, benches, and swings, providing a space for children to enjoy the beach,*

n) *Beach Volley Ball Court: Located in an open space near the beach,*

o) *Green Education Site: Created to promote a "Go Green" lifestyle among tourists after their visit to the beach,*

p) *Security Posts: Established for the safety and comfort of tourists,*

q) *Tourist Gathering Spots: Located near the entrance but not too far from the beach,*

r) *Information Centers: Designed to meet the information needs of tourists,*

s) *Paved Walkways: Constructed using grass-covered stones instead of asphalt,*

t) *Cafes and Seafood Stalls: Built with aesthetic cleanliness and hygiene in mind,*

u) *Restrooms and Waste Bins: Provided to maintain the cleanliness of the beach.*

D. Implementation

The implementation that can be carried out in the development of Manikin Beach as an eco-friendly tourist destination in Kupang Regency includes the following:

1) *The development of Manikin Beach as an eco-friendly tourist destination can be achieved by implementing eco-tourism criteria and involving all stakeholders.*

2) *The developers and managers must be able to package Manikin Beach as an eco-friendly tourist destination, making it suitable for sale.*

3) *Focusing on harnessing the potential of the beach with a development direction that is environmentally friendly and sustainable.*

4) *Development should consider the surrounding natural conditions to prevent environmental damage caused by climate change, such as coastal erosion.*

V. CONCLUSION

The environmental condition of Manikin Beach is no longer attractive due to damage and lack of cleanliness at this beach tourist destination. The absence of proper facility management based on zoning can also be addressed to determine a strategy for developing an eco-friendly tourism destination.

The involvement of the community in the development of Manikin Beach includes participating in tourism activities within the beach area and collaborating with the local government. Meanwhile, the role of the Local Government Apparatus, particularly the Tourism Office of Kupang Regency, is crucial not only in policy-making but also in on-site involvement at Manikin Beach. Competence, innovation, and creativity are essential in the development of the beach. Furthermore, the role of the Local Government in the development of Manikin Beach involves maintaining the ecosystem of service facilities at the beach to generate revenue for the local budget. Additionally, the preservation of the environmental ecosystem in the coastal area should be a continuous focus, even though it may not be fully optimal yet.

The proposed zoning of facilities at Manikin Beach for development includes: (1) Core Zone, (2) Buffer Zone, (3) Service Zone. In addition, the development of Manikin Beach as an eco-friendly tourist destination can be achieved by implementing eco-friendly/ecotourism criteria and involving all stakeholders. By addressing these issues and implementing comprehensive development plans, Manikin Beach can regain its attractiveness as a sustainable and environmentally friendly tourism destination. This approach ensures that both the natural environment and the local community benefit from tourism activities while minimizing negative impacts on the ecosystem.

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