

Application of Eco-Tourism Principles in The Development of Marine Tourism in Sanur

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Abstract

The natural potential, strategic location, and easy accessibility have made Sanur one of the most visited marine tourism areas. However, the development of marine tourism also has a negative impact, as it harms the environment. This study aims to identify the extent to which ecotourism principles are applied in marine tourism product development efforts and programs in Sanur. This research is descriptive qualitative research with various forms of data, such as the results of interviews, observations, documents, and audiovisual information. Informants were determined through purposive sampling and snowball sampling techniques. Triangulation was also carried out as a data validity test in this study. The results showed that of the five principles of ecotourism, the Sanur area had fulfilled three principles of ecotourism. Three principles that have been implemented well are utilizing natural resources, providing benefits to the community, and visitor satisfaction. However, the other two principles of ecotourism, namely nature-based and environmental education, still need to be improved in their application to preserve nature which will ultimately establish sustainable tourism.

Keywords: Sanur, Ecotourism, Marine Tourism

A. Introduction

The Coordinating Ministry for Maritime and Investment Affairs states that Indonesia's total water area is around 3,257,483 km² (75%), while Indonesia's land area is around 1,922,570 km² (25%). Therefore, Indonesia is considered a maritime country and the largest archipelago in the world, with the second longest coastline after Canada. Kusumatmadja (2000) explains that the Indonesian Sea has comparative advantages, cooperative advantages, and competitive advantages to become a prime sector in national development, including tourism. The Indonesian Sea has its strengths in the world of tourism. The diversity of Indonesia's marine resources can potentially be developed as a marine tourism product.

Sanur is one of the KSPNs in Bali, famous for its marine tourism. This area has extensive white sand and black sand, sea conditions that tend to be calmer, sunrise views, and various types of coral reefs that protect Sanur beaches from large waves coming from the high seas, and also as a habitat for various other marine life. This natural potential in the Sanur area has been well utilized as a tourist attraction. Marine tourism activities in Sanur are diverse, ranging from calm and pleasant tourist activities such as canoeing, traditional boats (jukung), glass bottom boats, fishing, and snorkeling, to more challenging activities such as sailing, surfing, banana boating, parasailing, spare fishing, and windsurfing.

However, in its development, tourism in Sanur has not only positive impacts on the economy but also negative impacts on the environment, such as the theft of coral reefs, overfishing, environmental pollution by debris from the construction of path expansion, the damage of coral reefs due to marine tourism activities themselves and the remaining large anchor ropes that cross the sea from boats that have been pulled back due to the decreased visits during the pandemic. This, of course, must be a serious concern because these negative results will affect the sustainability of tourism in the Sanur coastal area. One of the efforts to make tourism development in coastal areas sustainable is to combine the development model with the concept of nature and cultural preservation, where one of the development models that suits the development model in coastal areas is Ecotourism.

According to Anggreni (2021), Ecotourism is an alternative tourism that arises due to dissatisfaction with forms of tourism that pay less attention to social and ecological impacts and are more concerned with economic profit and human comfort alone. Meanwhile, according to Stephen & Ross (2002), there are at least five core principles of Ecotourism that are very fundamental and must be applied in the ecosystem, namely: (1) Nature-based orientation, (2) Utilizing and managing natural resources sustainably (3) Environmental education, (4) Benefits for local communities, (5) Providing satisfaction to visitors.

Based on the above explanation, a study is needed to determine the application of ecotourism principles in the development of marine tourism in Sanur, which is expected to open the stakeholder's point of view in the context of more focused and directed tourism development, and ultimately can establish sustainable tourism which can be a driving force of the Sanur tourism economy.

B. Literature Review

Ecotourism

Ecotourism is alternative tourism that results from dissatisfaction with forms of tourism that pay less attention to social and ecological impacts and emphasize economic benefits and human comfort alone (Nugraheni, 2002; Yuliana, 2019). Ecotourism is currently an essential economic activity, which provides an opportunity for tourists to gain experience studying nature and culture and understand the importance of coral reef conservation and local culture. At the same time, Ecotourism can provide income for conservation activities and economic benefits for the people who live around ecotourism sites (Fandeli & Nurdin, 2005). Stephen & Ross (2022) emphasizes that there are at least five fundamental principles of Ecotourism, namely: 1) Nature-based, 2) Ecological sustainability, 3) Environmental education, 4) Local benefits, and 5) Providing visitor satisfaction.

Marine Tourism

Sero (2010) defines marine tourism as a form that uses or exploits the potential of the coastal and marine environment as the main attraction. The concept of marine tourism is based on the view of the uniqueness of nature, the characteristics of the ecosystem, the uniqueness of art and culture, and the characteristics of the community as its primary strength. Priyono (2012) states that marine tourism is a tourism activity that utilizes the natural potential of the sea as a tourist attraction or container for tourism activities, carried out above the surface or in the sea area, which cannot be separated from the existence of its ecosystem, which is rich in diversity. Types of marine life.

According to (Prayogi & Sari, 2019), marine tourism includes recreational activities focusing on the maritime environment. Marine tourism is all activities to create fun, challenges, new experiences, and health, which can only be done in water areas. Making tourists participate directly in developing environmental conservation and preserving coastal areas, now and in the future. Marine Ecotourism is one of the keys to supporting the protection and preservation of coastal communities' cultural values and environmental quality (Yulius et al., 2018).

Nature Utilization-Based Tourism.

According to Dianasari (2016), the principles that serve as a reference in the sustainable use of the natural environment consist of (1) The natural environment has intrinsic value, which can also be used as a tourism asset. Utilization is not only for short-term interests but also for the benefit of future generations. (2) Tourism must be introduced as a positive activity by providing mutual benefits to the community, the environment, and the tourists. (3) The relationship between tourism and the environment must be managed to sustain the environment in the long term. Tourism must not destroy resources; future generations must still enjoy it or have an acceptable impact. (4)

Tourism and development activities must be concerned with the scale/size, nature, and character of the place where the activity is carried out. (5) In other locations, harmony must be built between the needs of tourists, the place or environment, and the local community. (6) It can always provide benefits in a dynamic world full of changes. Adaptation to change, stay in this principle.

C. Research Methods

The object of this research is the application of ecotourism principles in developing marine tourism in Sanur. The type of data in this research is qualitative data, with primary data sources obtained from interviews and secondary data from observations, documents, and audiovisual information. The informants were determined using purposive sampling and snowball sampling techniques. The informants' criteria set that informants must be people or stakeholders with accurate knowledge or information about marine tourism in Sanur and have an essential role. To meet these criteria, the selected informants in this study were the managers of the Turtle Conservation Center Sanur, East Bali Surf And Sail, Bali Diving Perdana, Sungai Bahari Intaran Sanur, and local communities (Darmana & Suarsana, 2016).

Data obtained in the field were processed and analyzed using qualitative descriptive analysis to describe the findings. According to Creswell (2014) and Bungin (2015), qualitative researchers are the key instrument. They collect data by examining documents, observing behavior, or interviewing participants. The researchers are the ones who gather the information, review all data, understand it, and organize it into categories or themes that cut across all data sources. Moreover, the data were analyzed using the ecotourism theory from Stephen & Ross (2022) to form a pattern of ecotourism implementation in Sanur.

D. Result

The Potential of Marine Tourism in Sanur

Sanur Beach has two types of sand: black and white. The white sand in Sanur can be found along Mertasari Beach to Segara Ayu Beach. At the same time,

the black sand beach is between Segara Ayu Beach and Sunrise Beach. The color difference in the sand is caused by the erosion of material from volcanic lava rocks, which produces black sand. At the same time, white sand is formed from crystallized minerals and coral-eating parrot fish feces.

Sanur Beach has a reasonably vast coastline/distance, making it suitable for tourists to walk, exercise, or sunbathe. The Sanur area also has a jogging track for walking or cycling. This area is considered relatively calm because there are still many big trees.



Figure 1. Sanur Beach
Source: Research (2020)

Sanur Beach is famous for its calm seawater conditions. This is due to the combination of sea depth levels, characterized by the wave boundary between the shallow and deep seas. In addition to the combined factors of sea depth, coral reefs, and seagrass beds dampened waves from the high seas. This condition makes tourists feel safe and comfortable doing their activities.

In addition to calm seawater conditions in the Sanur area, there are waves for extreme activities like surfing, but the waves are pretty far from the beach. The waves in Sanur are created due to the presence of coral reefs and wind, which makes waves from the high seas break in the surfing area, commonly known as surf point (reef). Therefore, visitors who want to do surfing activities usually use water transportation services to get to the location of the surf point. This condition is also favorable for visitors who want to surf because they will not be disturbed by visitors who are doing other marine activities. In the Sanur area, there are several surf spots, such as Hyatt Reef, Baby Reef, and Sanur Reef.

Coral reefs in Sanur function as a natural breakwater and a habitat for marine ecosystems. The coral reefs in Sanur are also quite diverse and beautiful, supported by calm sea conditions and sea depths that are not too extreme. These

natural conditions provide an advantage for tourists who want to do diving and snorkeling activities, either beginners or professionals.

Seagrass beds are the seagrass plot located in shallow seas and warm water areas with sandy bottoms. Seagrass beds in Sanur serve as a habitat for various marine animals and a food source for some marine organisms. In addition to being a habitat and food source, the dense growth of seagrass beds and the dense root system can slow down the movement of water caused by the currents and waves and cause the surrounding waters to calm down. Therefore, seagrass beds can act as abrasion preventers and sediment catchers. In addition, Seagrass meadows can capture and incorporate sediments, increasing subsurface stability and making water more transparent.



Figure 2. Seagrass Beds
Source: Research (2020)

Seagrass beds indicate that the sea in Sanur is relatively clean. This is demonstrated by endemic or rare animals, namely Dugong (Dugong) and Green turtles. The Dugong's natural habitat is in seagrass beds. One of the spots where endemic Dugongs appear in Sanur is at Dugong Sanur Beach. Endemic Dugongs and Green Turtles usually appear when seawater conditions are clean and there is less human activity.

Sanur also has a mangrove forest located south of Mertasari Beach. This mangrove forest functions as a wave barrier, abrasion preventer, and natural filter for seawater. The people of Sanur also recognize the existence of mangrove forests and protect the mangroves because there is also a temple often visited by the community in the middle of the mangrove forest. Therefore, the community protects the mangrove forest environment to preserve the environment around the temple.



Figure 3. Mangrove Forest
Source: Research (2020)

Sanur tourism facilities consist of public facilities and watersport facilities. The Sanur marine tourism area's public facilities include gazebos, public toilets, jogging tracks, transportation, lodging, food stalls, street vendors, shops/supermarkets, and art shops. Transportation facilities in Sanur are not only land transportation but also water transportation as a means for tourists to the surfing point areas and crossings between islands, such as Nusa Penida or Nusa Lembongan. Currently, the port in the area is being renovated and prepared as a connecting port to the areas known as the Golden Triangle, namely Sanur, Nusa Penida, and Nusa Ceningan.

In the Sanur area, many watersport businesses are along the beach, but only a few are legally registered and licensed. However, the available facilities are enough to satisfy tourists when they do marine tourism activities in Sanur. The Sanur beach area is also the center of the water sports area. Because of the complete and diverse facilities, many tourists and local people have become proficient in water sports activities at Sanur Beach. Eventually, so many water sports athletes emerged from the Sanur beach area.

Constraints on Marine Tourism in Sanur

Pollution in the marine environment is generally caused by human activities, both intentionally and unintentionally. This will undoubtedly hurt the marine ecosystem and reduce the quality of the coastal environment. The impact of this pollution should be followed up appropriately. Otherwise, it can have a broader negative impact on the environment. For example, seawater pollution in the Sanur area comes from plastic waste from the rivers that flow into the sea or the lack of awareness of the tourists and community about the danger of waste

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for preserving the ecosystems in the ecosystems the sea. Besides the garbage, there is marine pollution from the oil that spills when the ship refuels the engine. Permana Yudiarso, head of the Denpasar Center for Coastal and Marine Resources Management (BPSPL), said that a dugong was found dead on Tuesday morning (15/2) in Sanur because of eating the polluted seagrass.



Figure 4. Dugong carcass in Sanur Beach
Source: Research (2020)

The coral reef ecosystem in Sanur has decreased in quality which can be seen directly when we do snorkeling or diving activities. Most of the damage is caused by fishing anchors getting stuck, crashing into the engine during low tide, and hitting the fins used for snorkeling, thus causing coral damage.



Figure 5. The coral reef damage
Source: Research (2020)

Tides, ocean waves, and destructive ocean currents cause abrasion on Sanur Beach. These natural factors cause abrasion on Sanur Beach to be unavoidable because the sea has its cycle. Kribs are artificial tidal breakers used to

reduce the impact of abrasion on the coastline. Kribs that are damaged by waves have negative impacts, such as damaging buildings, polluting the beach, endangering tourists who walk, and resulting in the death of seagrass beds. They can also damage the coral reefs due to the fragments carried by tidal waves into the sea area.

E. Discussion

According to Stephen & Ross (2022), Ecotourism is based on the natural environment, focussed on maintaining and preserving Abiotic landscapes and environments, Biotic plants and animals, and Culture, namely human Culture. The Sanur community carries out nature-based marine activities, meaning that marine tourism in Sanur has tried to minimize activities that have the potential to damage nature; for example: (1) There are marine tourism activities that utilize natural conditions; (2) The community began to return to using traditional boats (jukung) for fishing; (3) People are careful when mooring their boats to avoid hitting coral reefs, if possible, they will anchor in sandy areas; (4) The community does not force activities if sea conditions are unfavorable.; (5) Engine refueling activities are done carefully so that the fuel does not spill and pollute the seawater.(6) Jukungs are also used for tourism services. Tourists use jukungs for transportation, either in fishing, surfing or just traveling on Sanur Beach.

According to Sugiharta & Sendratari (2013). All tourism must be ecologically, culturally, and economically sustainable by making the best use of existing natural resources. Ecotourism, as the name implies, must be responsible, especially ecologically. Marine tourism activities in Sanur have utilized natural resources or utilized natural conditions well, focusing on a sustainable environment, such as: (1) Wind, the use of wind as a natural resource of power for traditional jukung transportation, as well as other water sports activities that use wind power, such as surfing, parasailing, and sailing; (2) Waves, the use of waves as natural resources of power for surfing activities; (3) Tranquil Sea, the calm sea of Sanur, is very beneficial for tourists to do snorkeling and diving activities for beginners.

It is a safe place for tourists of all ages to spend their vacation in Sanur; (4) Marine biota, the diversity of marine biota natural resources in Sanur, is utilized for food (personal consumption) or as tourism activities such as fishing and spearfishing. The educational component of Ecotourism is a superior element that distinguishes it from all other forms of tourism Stephen & Ross (2022). Ecotourism includes environmental education about the environment and for the environment. The people of Sanur are very concerned about the environment, especially the marine environment, because they know it should be maintained and protected. Otherwise, any activities, either tourism or just the necessities of life, will be damaged. Therefore, the people of Sanur and the local government

work together to build various conservation areas, such as turtle breeding, mangrove protection, and coral reef habitat areas. Moreover, the government has also conducted various training to maintain and preserve the marine environment, such as coral planting by BKPM, planting mangrove seedlings every year, and environmental hygiene education.

Ecotourism must always involve and benefit the community, provide economic and cultural environmental benefits, and maintain the beauty and sustainability of the environment. This can be in the form of providing knowledge, services, facilities, and products. For example, the Sanur marine tourism area has provided benefits to the community, both in terms of economic and environmental benefits. During the pandemic (covid-19), the community can still take advantage of its natural conditions to meet the needs of life when tourism is down, such as fishing or spearfishing, looking for seaweed, the results of which can be consumed or resold by themselves.

Like tourism in general, Ecotourism must also try to provide satisfaction for tourists. As a result of Ecotourism, tourism becomes more informed and intelligent, with a higher level of quality in terms of environment, Culture, tradition, and tourism services Stephen & Ross (2022). The Sanur marine tourism area has satisfied visitors by providing panoramic views of natural beauty, Culture, traditional sides, and various tourist activities that can be done for both beginners and professionals. Tourists will feel the safety of the marine environment when they come with their families. During the endemic, the Sanur marine tourism area also experienced a faster increase in visits. Because besides traveling, visitors also do sports, to the government's appeal to always maintain a healthy body.

F. Conclusion

Based on the discussion of the five principles of Ecotourism, the Sanur area has fulfilled three principles of Ecotourism: (1) From the principle of utilizing natural resources, the community has utilized natural conditions to develop tourism; (2) From the principle of providing benefits to the community, the formation of tourism in Sanur is a benefit for the community because tourism is a source of livelihood for economic support to meet the needs of life. In addition to economic benefits, tourism in Sanur also indirectly has a conservative impact on natural resources; (3) From the principle of Visitor Satisfaction, visitors who travel to Sanur tend to make repeat visits because they see the potential beauty in Sanur's good tourism services and environmental comfort during marine tourism activities; (4) From the Nature-Based principle, the Sanur marine tourism area has tried to maintain and preserve the environment by minimizing the damage to the ecosystem due to marine tourism activities. However, some activities still damage the environment, such as mooring ships that do not pay attention to the location and anchorage of inappropriate ships, thus damaging corals at low tide. From the

principle of Environmental Education, the Sanur marine area already has turtle conservation and mangrove forest conservation.

The suggestions for stakeholders in the Sanur marine tourism area are: (1) In making tourist product packages, they should include activities to plant and care for coral reefs. This package can be included in snorkeling and diving activities. (2) Should study the zoning of marine tourism activities so that Sanur marine tourism activities have their tourist attractions and do not cause a conflict. (3) Should create activities that prioritize ecosystem sustainability, emphasize environmentally friendly marine tourism activities, and save the coastal environment. (4) Should always maintain the cleanliness and sustainability of the Sanur beach area to create a healthy coastal environment and avoid damage, such as: conducting marine ecosystem conservation activities, structuring the beach from street vendors, and always providing education about the environment. The potential of marine tourism in Sanur has the opportunity to be developed for the better to achieve sustainable tourism based on conservation & environmental preservation.

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