



RESEARCH ARTICLE

The Role of Local Community in Ecotourism Governance: A Step towards the Blue Economy

M. Husni Tamrin^{1*}, Lunariana Lubis² & Moh. Musleh³^{1,2,3}Department of Public Administration, Universitas Hang Tuah, Surabaya, Indonesia**ARTICLE INFO**

Received: Oct 24, 2024

Accepted: Dec 12, 2024

Keywords

Ecotourism

Blue economy

Governance

Community participation

Sustainability

***Corresponding Author:**

m.husnitamrin@hangtuah.ac.id

ABSTRACT

Ecotourism is essential for promoting the blue economy, particularly in the island regions and the engagement of the local community in the management is critical for guaranteeing environmental and economic sustainability. Therefore, this research aimed to examine the inclusion of the local community in ecotourism governance in Gili Iyang, Gili Labak, and Gili Genting, as well as the contribution to the blue economy. Data were collected using a qualitative and case research method, including in-depth interviews, observations, and document analysis. The results showed that participation in strategic decision-making remained restricted while the local community was included in the operations. This undermined the development of inclusive and sustainable ecotourism governance. Furthermore, ecotourism had a significant potential to help the blue economy, but limited infrastructure and regulatory obstacles prevented full growth. Strengthening local community capacity, collaboration on governance, and implementation of environmental rules were important in achieving ecotourism sustainability.

INTRODUCTION

Ecotourism is an essential strategy used to manage sustainable tourism sites, particularly on the coast and islands. This notion shows the role of the local community in environmental preservation and economic development through ecologically responsible tourist activities. However, the most difficult aspect of adopting ecotourism is guaranteeing the active inclusion of the local population in the management of tourist areas. In many situations, external parties, namely the government or the business sector, continue to dominate ecotourism management and ignoring the role of the local community. This generates governance gap, which should be filled by empowering community as the primary actor in the use of natural resources.

The absence of community inclusion in the planning and decision-making process is another indication of governance shortcomings in ecotourism. Governance rules seldom completely incorporate the understanding of the local community of the surrounding ecosystem. Therefore, the local community only benefits passively and does not influence related management. Inadequate amenities and infrastructure in many island-based ecotourism locations can increase the problem. In this context, the

best development is hampered by poor tourism amenities, challenging accessibility, and a lack of technological assistance.

The idea of the "**blue economy**" is becoming more widely accepted as a sustainable method of managing marine resources, specifically ecotourism. The blue economy places a strong emphasis on the sustainability of marine ecosystems and the connection between environmental preservation and economic growth. However, the use of this idea in ecotourism is still in the early stages and has not received serious attention from research. This theoretical gap shows the condition that a more thorough investigation into ecotourism may support the development of the blue economy, particularly in island regions with wealth of marine potential but are frequently disregarded. The importance of the local community is frequently reported in the literature on ecotourism governance. Even though community-based ecotourism (CBE) has long been accepted as a successful strategy for guaranteeing ecotourism sustainability, the application is restricted to specific situations, and models combining community engagement with sustainable governance have not been sufficiently explored. Therefore, it is essential to create a more thorough theoretical framework incorporating the concepts of the blue economy, inclusive government, as well as community inclusion.

Limited research have integrated the idea of the blue economy with CBE management. Numerous recent investigations have reported the significance of local community inclusion in ecotourism governance. For instance, Phelan et al. (2020) stated that with the help of inclusive governance laws, community-based method of ecotourism offers a significant deal of potential to assist the blue economy. Furthermore, Hafezi et al., (2023) reported ecosystem sustainability of community participation in coastal tourist management with good economic effect on the local community. Several research have produced a theoretical framework that establishes a connection between the blue economy, ecotourism governance, and community inclusion in an island environment.

According to Fennell (2003), ecotourism is a type of sustainable tourism that prioritizes protecting the environment, conserving natural resources, and enhancing the well-being of the local community. Additionally, active inclusion in the management and use of natural resources has a significant impact on the viability of CBE. The local community plays a critical role in managing ecotourism to maintain economic and environmental sustainability. Murphy (Murphy, 1986) reported that the local community played a crucial role in the growth of sustainable tourism by possessing a profound awareness of the ecosystems and traditional knowledge. Participation in ecotourism by the local community facilitates the transfer of important local information to preserve the natural and cultural environment (Hiwasaki, 2006). Furthermore, community decision-making has a major impact on the sustainability of CBE as the most directly impacted by tourist regulations (Tosun, 2000).

The idea is strongly connected to ecotourism governance, which requires cooperation between the public and commercial sectors as well as the local population to accomplish sustainable goals (Okazaki, 2008). According to (World Bank, 2017), the blue economy was a model for economic growth that emphasized the sustainability of marine resources to enhance the socioeconomic well-being of coastal community while protecting marine ecosystems. Therefore, the implementation of the blue economy in ecotourism needs inclusive community inclusion, good governance, and an understanding of the value of environmental preservation as a component of a sustainable development plan. In addition to promoting economic sustainability, this partnership enhances the social and cultural integrity of the local community and creates a greater sense of ownership over natural resources.

According to Rahman et al., (2022), including the local population in coastal tourism planning encourages participation and enhances a greater sense of ownership over natural resources. The long-term sustainability of CBE greatly depends on the sense of ownership. Furthermore, participation is a crucial tactic to develop a sustainable ecotourism model in line with the principle of the blue economy to fulfill social responsibilities. There are different challenges for ecotourism management of the archipelago to attain the intended sustainability without a sense of ownership. The role of local communities in ecotourism governance is a crucial aspect in the transition towards a sustainable blue economy. As the

blue economy discourse gains momentum, integrating community participation in ecotourism development has emerged as a key strategy to ensure social equity and environmental sustainability (Cisneros-Montemayor et al., 2021; Phelan et al., 2020).

The local community plays a crucial role in promoting inclusive and equitable blue economy development, as well as sustainable ecotourism governance. Therefore, this research aims to fill the gap by examining the inclusion in ecotourism governance and the realization of the blue economy. Theoretical contributions are also provided for the development of CBE model oriented towards the blue economy through an inclusive governance method.

METHOD

This research uses qualitative (Creswell, 2013) and multiple case methods (Yin, 2003). The locus is three ecotourism destinations in Sumenep Regency, namely Gili Iyang, Gili Labak, and Gili Genting. The selection of the 3 tourist destination locations is due to the increasing enthusiasm for tourism due to the fame. Data collection was conducted through in-depth interviews, field observations, and document analysis. The main informants consisted of managers, the local community, and representatives of local governments related to ecotourism governance. Direct observations were conducted to determine the role of community in daily ecotourism activities as well as the condition of infrastructure and the environment at the research location. The selection of informants was carried out purposively and was determined from the beginning of the research because of the capabilities and knowledge possessed by the informants.

Data were analyzed using thematic analysis to identify key themes related to local community participation, ecotourism governance, and contribution of ecotourism to the blue economy. Additionally, this research used data triangulation procedures (Miles et al., 2014). Data reduction, data display, and conclusion-making were included in the data analysis procedure. By comparing the outcomes of observations, interviews, and pertinent documents, the triangulation method was used to validate the results. The questions addressed were followed by a narrative presentation of the data analysis.

RESULTS AND DISCUSSION

1. The Local Community Role in Ecotourism Management

The local community plays the role in controlling ecotourism in the archipelago (Kurniawan et al., 2022). As the primary power, it is in charge of protecting the local ecology and culture to ensure the viability of tourism destination activities. The support of tourism attractions in the Golden Triangle Island area is influenced by the engagement of the local community. This party serves as a caretaker of the authenticity of the local ecology and culture in addition to managing the facilities. Community can create sustainable ecotourism when having a thorough awareness of the local customs and natural surroundings.

The growth of health-based tourist attractions is greatly aided by the local population, particularly in advertising the island as having high oxygen levels. Homestay and transportation services were provided for tourists, which provided additional income for community and supported the concept of sustainable tourism. To maintain the quality of oxygen, the management and the Andang Taruna Tourism Awareness Group (Pokdarwis) initiated tree planting around the main destinations. Furthermore, community was actively educated not to add motorized vehicles to the island. As an alternative environmentally friendly transportation, bicycles will be provided for tourists to enjoy the fresh air while exercising, without polluting the environment with vehicle emissions.

This is in line with **CBE** method which emphasizes the role of maintaining local ecosystems and ensuring that the local community directly benefits from tourism activities. This is in line with (Hiwasaki, 2006), where the success of ecotourism management is highly dependent on active community participation in conservation activities and the management of tourist destinations. Meanwhile, the role on Gili Iyang

Island is described as follows:

Table 1. Role of Gili Iyang Management, Sumenep

	Group	Role	Activity
1.	Andang Taruna Tourism Awareness Group (Pokdarwis)	Department of Tourism, Culture, Youth and Sports of the Sumenep Regency assists with human resources to develop Gili Iyang ecotourism.	Conducting HR training in tourism services, environmental conservation, and promotion of high-oxygen tourism.
		Conducting maintenance of tourist attractions.	Cleaning the tourist area and maintaining signs or signs for visitors at high oxygen point locations.
2.	BUMDESMA (Joint Village-Owned Enterprises)	Conducting economic activities and public services.	Providing public facilities such as toilets, food stalls, and local transportation for tourists.
3.	Gili Iyang Island Community	Preserving local arts with Andang Taruna Tourism Awareness Group.	Organizing traditional arts and cultural performances to attract tourists and preserve local cultural identity.

Source: Author analysis

Based on Table 1, the collaboration between Tourism Awareness Group, Joint Village-Owned Enterprises (BUMDESMA), and the local community has great potential to realize sustainable ecotourism in Gili Iyang. Andang Taruna Tourism Awareness Group collaborates with the Department of Tourism, Culture, Youth and Sports (Disparbudpora) of Sumenep Regency to increase the capacity of local human resources (HR). The groups are also responsible for maintaining tourist attractions to improve tourism infrastructure.

The role of BUMDESMA is quite important in providing facilities that support visitor comfort, such as food stalls and local transportation. However, the challenge that needs to be overcome is channeling the results of economic activity for conservation and improving the quality of tourist facilities. The local community is included in preserving local arts and culture, which provides added value to the tourist experience and strengthens the cultural identity of Gili Iyang Island.

Participation from the local population is crucial to preserving the coral reefs of Gili Labak as the primary destination. Community actively participates in underwater conservation initiatives and teaches tourists about the value of preserving marine environments. The **Local Community Empowerment** hypothesis shows that participation in natural resource management may raise the ability to preserve the environment while promoting a tourism-based economy (Gezahegn et al., 2024). The responsibilities include tour guide duties, stall management, restroom assistance, snorkeling equipment rentals, and hosting visitors in homestays.

The Gili Labak management team should establish specific visitor rates because of the growing interest in creating sustainable ecotourism. The determination of these rates serves as a source of income for the maintenance of public facilities and conservation efforts and allocates funds for community training programs. This training is important, hence community can be more optimally included in supporting the sustainability of ecotourism through tourism service skills and in efforts to protect the environment. A transparent tariff structure will encourage better management of Gili Labak ecotourism to create a positive impact on community and the environment. The roles are grouped based on function and relation to the local Gili Labak community.

Table 2. Role of Gili Labak Management, Sumenep

No.	Group	Role	Activity
1.	Tourism Awareness Group (Pokdarwis)	Assisting with the Sumenep Regency Government for the development of human resources in Gili Labak ecotourism.	Organizing training related to tourism management, environmental conservation, and services for Pokdarwis.
		Maintaining tourist attractions.	Ensuring cleanliness, comfort, and sustainability of tourist facilities in Gili Labak.
2.	Gili Labak Island Community	Preserving local arts with Pokdarwis.	Holding local art performances for tourists and organizing cultural activities to attract visitors.
		Providing services and needs for tourists.	Providing local food and drinks, renting snorkeling equipment, providing homestays, and other facilities needed by tourists.
		Producing local products to improve community's economy.	Creating crafts typical of Gili Labak Island and selling to visitors as souvenirs.

Source: Author analysis

Based on Table 2, the local community and Tourism Awareness Group have complementary roles. Tourism Awareness Group, which collaborates with the Sumenep Regency Government, focuses on HR development and maintenance of tourist attractions. This includes activities oriented towards increasing the local community capacity, such as tourism management training and environmental conservation.

The general public on Gili Labak Island is part of the direct activities that include interaction with visitors. Tourist needs such as food, homestays, and snorkeling equipment strengthen local community inclusion and play the role in improving the local economy.

The local community inclusion in the tourism sector has included various operational services, such as providing homestays, transportation, and tour guide services. However, participation is limited to operations, without deeper inclusion in strategic decision-making regarding the direction and policies of tourism development in the area. This condition shows a gap in the application of Ecotourism Governance concept, where the local community has not been optimally included in the crucial decision-making process to determine the sustainability of ecotourism (Barocas et al., 2022) in Gili Gending.

Collaboration between government, community, and private sector is essential to realize sustainable and participatory ecotourism governance. Greater community inclusion in strategic planning aspects ensures that tourism policies taken are under local needs and contribute to welfare. In this context, the role of the local community in the development of ecotourism can be seen in Table 3.

Table 3. Role of Gili Gending Management, Sumenep

No.	Group	Role	Activity
1.	Tourism Awareness Group (Pokdarwis)	Providing assistance to human resources in developing ecotourism and maintaining tourist attractions with the Sumenep Regency Government.	Conducting HR training in tourism services, ecotourism promotion, and environmental maintenance.

2.	BUMDes (Village-Owned Enterprises)	Conducting economic activities and public services in Gili Genting.	Providing facilities such as homestays, food stalls, and local transportation for tourists.
3.	Gili Genting Island Community	Preserving local arts together with Pokdarwis.	Organizing local art and cultural performances as a tourist attraction.
		Providing services and needs for tourists.	Providing homestays, transportation facilities, and local cuisine for tourists.
		Producing local products to improve economy.	Developing local products for souvenirs and gifts.

Source: Author analysis

Based on Table 3, there is a significant contribution from the Tourism Awareness Group, Village-Owned Enterprises (BUMDes), and the local community in supporting ecotourism in Gili Genting. Tourism Awareness Group has an important role in assisting HR, specifically in training tourism services and environmental maintenance. However, the effectiveness of the role of Tourism Awareness Group requires support from the local government in the form of participatory policies including strategic decision-making.

BUMDes plays the role in providing public and economic facilities in Gili Genting. This is very important to improve the tourist experience but still needs to be improved. Therefore, economic results from the facilities provided can be channeled to environmental conservation programs and community capacity building. The local community as the main stakeholder provides tourism services and preserves local arts and culture, which are unique attractions for tourists.

The results show that the local community on the three islands, Gili Iyang, Gili Labak, and Gili Genting, play a significant role in the operational management of tourist destinations. The sustainability of tourism sites on each island is supported by active participation in a variety of operational activities. For instance, there is a contribution to the maintenance of health-based ecotourism, which depends on high oxygen levels as the primary draw. Conservation initiatives to preserve the sustainability of the local ecosystem are considered besides offering transportation and housing services.

The local community plays a significant part in fulfilling the demands of tourists on Gili Labak and Gili Genting by offering services including tour guides, transportation, and homestays. For instance, community in Gili Genting is not completely included in strategic decision-making. These positions show that the local community cares deeply about the preservation of the environment and local culture in addition to supporting sustainability through participation in different operational areas. However, the majority of the local community still lacks access to strategic decision-making processes, dictating the course of tourist development on the islands.

This imbalance shows a challenge in ecotourism governance, where the role of the local community is still limited to the level of operational implementers or managers without adequate opportunities to participate in determining strategic policies (Dicenta & Gerrard, 2023). Inclusion in important decision-making in ecotourism can provide a greater sense of ownership of the resources (Wu et al., 2022). Therefore, there is a tendency to be more motivated to maintain and preserve the environment sustainably, because community directly feels the benefits and responsibility for the sustainability of ecotourism in the area.

The implication is the importance of increasing the capacity of the local community capacity in terms of governance and the ability to participate in decision-making. Enhanced and strategic participation will enable community to transcend the role of implementers and position as important contributors to sustainable development through CBE method (Mazengiya, 2022). Community manages tourism activities and becomes a decision-maker with direct control over policies and the direction of tourism

development on the islands. This capacity building supports environmental sustainability and creates greater economic impacts for community, leading to more inclusive and equitable ecotourism-based economic development.

The local community will be better prepared to face challenges through broader inclusion in the decision-making process, such as managing environmental impacts and planning more adequate tourism facilities (Ren & Lei, 2022). This participation opens up opportunities for community to develop other tourism potentials, such as integrating local cultural values and traditions into the tourism experience. Possession of control over the resources can maintain and protect the environment sustainably.

2. Challenges of Ecotourism Governance in the Golden Triangle Islands

Ecotourism governance in island areas such as Gili Iyang, Gili Labak, and Gili Genting faces significant challenges, specifically related to limited infrastructure and lack of effective coordination between stakeholders. Even though ecotourism has great potential to support environmental sustainability and the local economy, the management requires a more inclusive and well-coordinated structure. The local community plays an active role in operations and strategic decision-making. Moreover, limited infrastructure, such as difficult transportation access and inadequate facilities, are obstacles to developing environmentally friendly tourist destinations. Proper growth and the provision of optimal economic benefits to the local population become challenging in the absence of adequate infrastructural support.

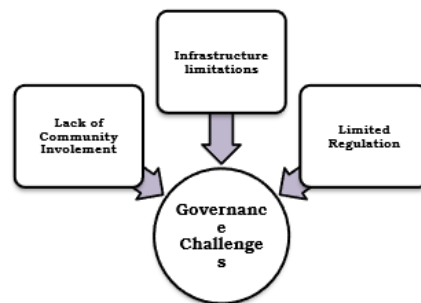


Figure 1. Challenges of Ecotourism Governance in the Golden Triangle Island Area
 Source: Processed by author

The absence of local community participation in strategic decision-making is the largest issue facing ecotourism governance throughout the three islands. Local governments and the private sector dominate decision-making, while community is only included at the operational stage, despite **CBE** emphasis on the value of inclusion (Mazengiya, 2022). This hampers the development of sustainable and inclusive governance, where the local community needs to have more influence throughout tourism destination management.

Apart from governance constraints, infrastructure problems are a significant barrier to the growth of sustainable ecotourism. Access to the three islands is still limited due to inadequate transportation options and subpar basic amenities including lodging, sanitary conditions, and health care. Similar obstacles exist on Gili Iyang Island, where social and cultural issues play a significant role in influencing the growth of ecotourism in addition to infrastructural and governance challenges. Participation in decisions pertaining to the growth of ecotourism is hampered by comparatively low educational attainment. The local population frequently lacks the knowledge and abilities necessary to actively participate in the administration of tourist destinations or to maximize the financial gains from the industry in the absence of proper education. Therefore, training and capacity-building initiatives are required to improve community's comprehension of ecotourism and the significance of sustainable management.

The arrival of international visitors with contemporary attitudes and lifestyles has caused fast cultural changes in Gili Iyang Island. There is a drive to respect other cultures relating to dressing and using contemporary technology, which makes the process of cultural adaptation difficult. This adaptation cannot avoid the potential for negative impacts on the local indigenous culture. The Gili Iyang Island community must balance between honoring other cultures and upholding the customs as well as beliefs.

Ecotourism is not built with deep concern for the preservation of nature and the development of sustainable ecological principles. A major problem is the lack of clear regulations regarding the number of visitors, as well as supervision of the use of existing facilities. There are no strict restrictions regarding visitor capacity, which causes an excess number of tourists at certain times, potentially reducing the environmental carrying capacity. The existing ecosystem is threatened with further damage due to uncontrolled tourism activities without restrictions on the number of visitors.

The impact of unlimited visitor mobility is very noticeable in the damage to the coral reefs in the Gili Labak Sea. The status of the marine ecosystem has deteriorated by diving, and snorkeling, as well as ships and speedboats that anchor irresponsibly in the region. These ships frequently disregard current regulations, which seriously harm coral reefs. The problem has deteriorated due to visitor activities as well as the neglect of infrastructure. Many facilities are damaged or lost due to improper management. This certainly shows that the current management is inadequate.

The infrastructure on Gili Labak Island is limited, affecting the management of ecotourism. For instance, no infrastructure such as tourist centers or marine conservation zones may better support ecotourism operations, even though the coral reefs have enormous potential. Tourists cannot fully comprehend the significance of environmental preservation and the support of sustainable management without sufficient information centers. Well-managed conservation zones are desperately needed to prevent tourism-related harm to coral reefs and other marine ecosystems.

This situation shows that Gili Labak management is still poor and a more comprehensive strategy is required. Furthermore, it is important to solve current infrastructure and governance challenges using the Integrated Ecotourism Governance method, incorporating all stakeholders such as government, community, and commercial sector (Quinta-Nova & Ferreira, 2022). This collaboration between stakeholders can address limited infrastructure issues and create clear regulations regarding environmental protection. Therefore, ecotourism activities carried out on Gili Labak provide economic benefits and conserve the existing biodiversity.

The challenges in managing ecotourism lie in several aspects, such as limited support from the district government. Even though the spatial arrangement for the development of tourism has been regulated and published in the Sumenep Regency Development Plan 2019-2028, most of the management relies heavily on local community initiatives. This creates difficulties in ensuring consistent service standards and management quality, given the limited capacity at the local level. Despite planning for the development of the tourism sector, the district government has not provided sufficient specific assistance to increase the capacity of tourism managers and the local community in developing sustainable ecotourism management strategies. Management efforts are limited in supporting better tourism sector development without adequate resource support such as training and good infrastructure facilities.

The limited HR are a major obstacle in providing adequate services, specifically for foreign tourists. Many culinary traders and teenagers located on the beach do not have sufficient English language skills to interact with foreign tourists. This causes difficulties in providing information services, transactions, and other requests required by tourists. The limitation affects the quality of the tourist experience and hinders economic potential obtained from the tourism sector. This situation increases the attempts to make Gili Gending Island a more alluring ecotourism destination for visitors from other countries.

The absence of explicit laws about environmental preservation makes governance of ecotourism on the three islands more problematic. Every island has unique natural potential and ecotourism attractions,

but the ecology may be affected when tourism is not properly managed. Gili Iyang is well-known for the potential for health-based ecotourism that emphasizes high oxygen levels. The sustainability of the natural ecosystem may be threatened by the absence of regulations governing the number of visitors or the kind of activities conducted in sensitive regions.

Gili Labak as the home to extremely important coral reefs, experiences a similar situation. However, the coral reef ecology might be harmed by visitor activities such as diving, snorkeling, and ship anchoring that disregard current restrictions. Even though the local community handles the majority of tourist management, the issue is worsened by the lack of assistance and regulation of the local government. The cleanliness of the beach and the coastal environment may suffer due to poorly planned visitor activities. Despite the exceptional potential, ecotourism cannot help the environment or community in the long run without improved governance and more stringent restrictions.

The results show that there are several issues with ecotourism governance on the three islands, particularly concerning inadequate infrastructure and local community participation in strategic decision-making. Despite being active in daily activities, there is limited participation in the formulation of strategic policies on the administration of tourist destinations. This situation is evident at Gili Labak and Gili Genting, where the private sector and local governments predominate in the decision-making process. This lack of participation presents some important issues. The interests and preferences of the local population are forgotten when decisions are made without inclusion, causing an imbalance between environmental preservation and economic growth. This restriction shows a weakness in the inclusive governance of ecotourism, where the local community needs to be the primary stakeholder in the management of natural resources.

This conclusion has important consequences for the sustainability of ecotourism. The lack of complete local community engagement in decision-making can create discontent and a diminished sense of ownership for the tourist destination to impede the implementation of Integrated Ecotourism Governance (Quinta-Nova & Ferreira, 2022). In addition, infrastructure limitations, such as poor accessibility and inadequate supporting facilities can increase the problem. The full potential of ecotourism cannot be realized without supporting infrastructure improvements, such as better transportation, health services, and decent accommodation facilities.

3. Ecotourism and Contribution to the Blue Economy

The concept of the blue economy is relevant in the context of ecotourism management in island regions, specifically because the basic principles emphasize the preservation of marine ecosystems while supporting sustainable economic development. The implementation of the blue economy principle supports infrastructure improvements, such as better transportation, health services, and decent accommodation facilities. However, there is an opportunity for more comprehensive and systematic development in governance and inclusion of various parties.

In Gili Iyang, the concept of health-based ecotourism that uses high oxygen levels is under the principles of the blue economy. Domestic and foreign tourists come to experience the unique air circulation packaged as health tourism. The Sumenep Regency Tourism Development Master Plan (RIPPARKAB) for 2016 - 2030 has designated Gili Iyang as a natural tourism destination and a top priority in regional tourism development. This is in line with efforts to develop the blue economy, where natural resources are used without damaging the environment. The Sumenep Regency Government plans to make Gili Iyang a professional health tourism object that adopts high oxygen quality as the main attraction. In the context of the development, the Sumenep Regency Tourism, Culture, Youth, and Sports Office (Disparbudpora) has planned to build facilities to accommodate health tourism.

Gili Labak presents marine-based ecotourism such as snorkeling and diving that show the rich coral reef ecosystem and marine biodiversity. However, the high number of tourist visits brings challenges to environmental sustainability. The blue economy method focuses on the sustainable management of

marine resources. Therefore, economic potential can be achieved without sacrificing the health of the marine ecosystem. In this context, stricter regulations regarding the protection of coral reefs and marine ecosystems are a priority in ensuring the long-term sustainability of ecotourism activity. Gili Labak can be an example of marine-based tourism in line with the blue economy by adopting the Sustainable Blue Economy concept.

Gili Genting with the increasingly popular Sembilan Beach destination, faces a major challenge in maintaining a balance between tourism activities and environmental carrying capacity. The absence of strong regulations makes activities vulnerable to practices that can damage the marine ecosystem. The implementation of the blue economy principle in tourism governance needs to be improved, specifically in terms of regulation and supervision. In this case, the inclusion of the local community in planning and decision-making is very important to achieve a balance between economic growth and environmental conservation. The application of the blue economy focuses on protecting natural resources, which are the source of livelihood for local community.

Based on the planning aspect, ecotourism development requires careful and integrative planning to create high-added value, quality services, and significant economic benefits for the local community. The concept is a professionally designed travel activity to generate economic benefits but still considers aspects of environmental sustainability (Shao et al., 2022). Therefore, the role of ecotourism service managers is very important in providing a safe, quality, and satisfying tourism experience for visitors. For example, Gili Iyang Island has a unique attraction in the form of high oxygen levels, which has attracted tourists from abroad. To maximize the potential, the Tourism, Culture, Youth, and Sports Office of Sumenep Regency has launched a pilot project aimed at making Gili Iyang a professional health tourism center.

In the context of ecotourism planning in Gili Labak, there is still a lack of information for the local community regarding sustainable tourism development. Community inclusion in this management is essential to ensure that tourism activities remain in line with the principles of the blue economy. Community only takes advantage of existing opportunities without understanding long-term planning since the management is not optimal. In this context, a method including community in dialogue and decision-making can increase environmental awareness and responsibility, as well as provide a positive experience for tourists. Therefore, the goal of ecotourism to improve community welfare while preserving the environment can be achieved.

In Gili Genting, local community inclusion is still limited to small business actors without the opportunity to be directly included in the management of Sembilan Beach. The lack of transparency in the management makes community only serve as additional service providers around tourist locations, such as MSME traders, without any deeper opportunity to participate in the planning and development of tourist destinations. The Bringsang Village Government through the Village-Owned Enterprises (BUMDes) has also been unable to manage Sembilan Beach due to the lack of regulations and limited funds. Ecotourism has the potential to develop sustainably and provide greater economic benefits to the local community by strengthening the regulatory framework and opening up space to play an active role in management.

The development certainly cannot be separated from the availability of clear information and support from the surrounding community. On Gili Iyang Island, Andang Taruna Tourism Awareness Group acts as a partner of the Department of Tourism, Culture, Youth, and Sports in providing space for the local community to participate in ecotourism development. In this context, community is encouraged to be open and support the development of sustainable tourism. This Tourism Awareness Group also functions as a liaison between the local government and community to disseminate information related to tourism development and provide training aimed at building environmentally conscious characters. Therefore, the Gili Iyang community is a spectator and plays an active role in the development of Oksigen Island as an environmentally friendly ecotourism destination.

In Gili Labak, the absence of regulations has resulted in less structured tourism management and is often colored by conflicts of interest. Ecotourism management is carried out by community with the support of the local village head, without the active inclusion of the Regional Work Unit (SKPD) and the Department of Tourism, Culture, Youth and Sports. This is contrary to the Regulation of the Minister of Home Affairs Number 33 of 2009 concerning Guidelines for the Development of Ecotourism in the Regions, which requires regulations and cooperation between stakeholders in the development of ecotourism. Ecotourism potential can be developed sustainably, and have a positive impact on the local economy and environment by strengthening coordination between the government, community, and private sector.

The **aspect of contribution in achieving the blue economy** certainly opens up great opportunities for community based on the sustainable use of marine and coastal resources. This can be achieved by including the local community in the management and development of ecotourism, as well as increasing knowledge and awareness regarding the preservation of nature and local culture (Gezahegn et al., 2024). In this case, 3 (three) efforts are made to achieve this:

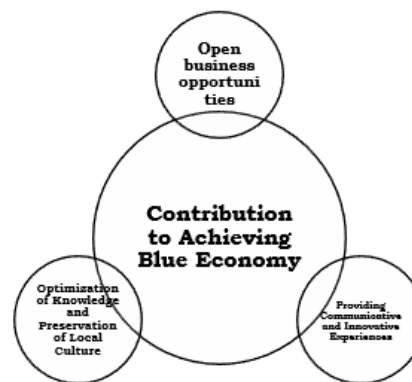


Figure 2. Contribution to Achieving Blue Economy
Source: Processed by author

1. Community can open ecotourism business as activity actor.

The blue economy provides opportunities for the local community to be directly part of ecotourism activities. On Gili Iyang Island, community is actively included in the management through the Andang Taruna Tourism Awareness Group organization, which provides opportunities for running businesses such as tour packages, homestays, food stalls, and local crafts. This direct community inclusion creates jobs and strengthens the local economy. Business opportunity covers various sectors, from providing tourist transportation, and local products, to culinary services. Moreover, the use of ecotourism potential in Gili Labak and Gili Genting Islands shows the role of local business actors in providing for tourists. This opens up more job opportunities and strengthens economic resilience of the local community.

2. Optimizing local knowledge and preserving local culture

Local wisdom held by community is a very important added value in the development of ecotourism. Gili Iyang Island with the oxygen-rich air quality is a good example of the use of natural potential in the development of ecotourism. Local community know the management of natural resources, which has been maintained for generations, such as how to maintain the sustainability of oxygen-rich air or the potential for health therapy from the surrounding nature. The local community possesses valuable knowledge regarding the management of natural resources, a practice sustained over generations. This includes preserving oxygen-rich air and leveraging the surrounding natural environment for the potential health therapy benefits. This knowledge is an attraction for tourists and a tool to maintain the balance between economy and the environment. On Gili Labak Island, the strong Madurese culture is an invaluable tourist attraction. The community has optimized cultural potential, such as handicrafts and

culinary specialties, to add value to the tourism offered to visitors.

3. Providing a communicative and innovative experience

Ecotourism visitors look for natural beauty as well as deep and valuable experiences. Therefore, the business actors on the islands need to transmit information and experiences communicatively and innovatively. On Gili Iyang Island, the provision of a complete package with tour guides and documentation such as photographers, provides a more comprehensive and memorable experience for visitors. The method of transferring information about the uniqueness of the Island is delivered in an educational method, such as the health benefits of oxygen-rich air. Local community also transfer experiences by providing storytelling or local folklore, which adds cultural value to the visit.

In this context, CBE has great potential to contribute to the achievement of the blue economy in the archipelago. However, improvements in governance, increased community participation, and stronger regulations related to environmental protection and natural resource management are needed to achieve full potential.

Other results show that CBE has great potential to support the achievement of the blue economy. On Gili Iyang, the management of high-oxygen-based health tourism is in line with the principles of the blue economy, because the concept uses natural resources without damaging the environment. Even though marine-based tourism such as snorkeling and diving has provided significant economic impacts for the local community, threats to environmental sustainability still exist. Poorly managed tourism activities can damage the marine ecosystem as the core of the blue economy without strict regulations and full awareness from all stakeholders.

The integration of blue economy principles in ecotourism governance is very important to ensure that economic benefits obtained from marine tourism activities do not affect environmental sustainability. The application of the Sustainable Blue Economy concept can maintain a balance between economic development and environmental conservation, specifically in island areas causing damage to marine ecosystems (Rahman et al., 2022). Stronger collaboration is needed between the government, community, and private sector to ensure that regulations related to marine-based tourism management are implemented properly. Therefore, the potential of the blue economy can be fully realized without sacrificing environmental carrying capacity.

CONCLUSION

This research showed that the role of the local community in ecotourism management in island areas, such as Gili Iyang, Gili Labak, and Gili Genting, was very important to achieve environmental and economic sustainability. Local community played an active role in ecotourism operations, but the inclusion in strategic decision-making was still limited. This created governance gap that could be more inclusive and community-based. Therefore, the importance of increasing the role of community was relevant to the principles of **good governance**, which emphasized openness, participation, accountability, and effectiveness. Without full community inclusion in the decision-making process, sustainable ecotourism governance would be difficult to achieve. The government, private sector, and local community must collaborate more intensively and integrate community perspectives in every stage of ecotourism management.

CBE had great potential to support the blue economy, which emphasized the preservation of marine ecosystems and community welfare. Concerning the **blue economy**, this model emphasized the preservation of marine ecosystems while improving community welfare. Despite this enormous potential, the implementation of the blue economy was not fully optimal due to the lack of strong regulations and adequate infrastructure. The blue economy was difficult to develop optimally without policies supporting marine environmental protection, as well as adequate infrastructure to support ecotourism activities.

The implementation of the ideal blue economy principles was in the early stages but there were several efforts to integrate environmental conservation into ecotourism. The government and private sector must be more serious in developing policies focused on marine conservation, as well as building environmentally friendly facilities. Furthermore, there could be training and empowerment of the local community to manage tourist destinations sustainably. Significant improvements were needed in terms of regulations to increase community capacity and develop infrastructure. This result showed that increasing the capacity of the local community in decision-making and managing ecotourism was essential. Inclusive collaboration was promoted with the local community and the private sector to ensure that the management was carried out in an environmentally friendly and sustainable manner. There were stricter regulations related to environmental protection and marine-based tourism management to improve infrastructure such as transportation access and supporting facilities at tourist destinations. Therefore, the potential for ecotourism and the blue economy could be realized optimally in supporting the sustainability of economy and ecosystem.

REFERENCE

- Barocas, A., Farfan, J., Groenendijk, J., Mendoza, J., Silva, J., Mujica, O., Ochoa, J. A., Macdonald, D. W., & Swaisgood, R. R. (2022). Disturbance-specific behavioral responses of giant otters exposed to ecotourism and extractive activities. *Animal Conservation*, 25(1), 15–26. <https://doi.org/https://doi.org/10.1111/acv.12713>
- Cisneros-Montemayor, A. M., Moreno-Báez, M., Reygondeau, G., Cheung, W. W. L., Crosman, K. M., González-Espinosa, P. C., ... & Ota, Y. (2021). Enabling conditions for an equitable and sustainable blue economy. *Nature*, 591(7850), 396–401. <https://doi.org/10.1038/s41586-021-03327-3>
- Creswell, J. W. (2013). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (3rd ed.). Sage Publication.
- Dicenta, M., & Gerrard, A. C. (2023). Ecotourism, infrastructures, and the drama of sovereignty on a border island. *The Journal of Latin American and Caribbean Anthropology*, 28(4), 298–309. <https://doi.org/https://doi.org/10.1111/jlca.12696>
- Fennell, D. A. (2003). Ecotourism , second edition. In *Ecotourism* (pp. 1–20). Routledge is an imprint of the Taylor & Francis Group.
- Gezahegn, B., Girma, Z., & Debele, M. (2024). Local Community Attitude towards Forest-Based Ecotourism Development in Arbegona and Nensebo Woredas, Southern Ethiopia. *International Journal of Forestry Research*, 2024(1), 4617793. <https://doi.org/https://doi.org/10.1155/2024/4617793>
- Hafezi, F., Bijani, M., Gholamrezaei, S., Savari, M., & Panzer-Krause, S. (2023). Towards sustainable community-based ecotourism: A qualitative content analysis. *The Science of the Total Environment*, 891, 164411. <https://doi.org/10.1016/j.scitotenv.2023.164411>
- Hiwasaki, L. (2006). Community-Based Tourism: A Pathway to Sustainability for Japan's Protected Areas. *Society & Natural Resources*, 19(8), 675–692. <https://doi.org/10.1080/08941920600801090>
- Kurniawan, F., Adrianto, L., Bengen, D. G., & Prasetyo, L. B. (2022). Hypothetical effects assessment of tourism on coastal water quality in the Marine Tourism Park of the Gili Matra Islands, Indonesia. *Environment, Development and Sustainability*, 1–27.
- Mazengiya, M. N. (2022). Review on the Impacts of Community-Based Ecotourism on Household Financial Asset Improvement and Its Determinants in Ethiopia. *Advances in Agriculture*, 2022(1), 9238244. <https://doi.org/https://doi.org/10.1155/2022/9238244>
- Miles, M. B., Michael Huberman, A., & Saldaña, J. (2014). *Qualitative data analysis: A methods Sourcebook* (3rd Edition). In *SAGE Publications, Inc.* <https://doi.org/10.1177/239700221402800402>
- Murphy, P. (1986). Tourism: A community approach. *Annals of Tourism Research*, 13(4), 667–669. [https://doi.org/https://doi.org/10.1016/0160-7383\(86\)90012-5](https://doi.org/https://doi.org/10.1016/0160-7383(86)90012-5)
- Okazaki, E. (2008). A Community-Based Tourism Model: Its Conception and Use. *Journal of Sustainable Tourism*, 16(5), 511–529. <https://doi.org/10.1080/09669580802159594>
- Phelan, A. (Any), Ruhanen, L., & Mair, J. (2020). Ecosystem services approach for community-based ecotourism: towards an equitable and sustainable blue economy. *Journal of Sustainable Tourism*, 28(10), 1665–1685. <https://doi.org/10.1080/09669582.2020.1747475>
- Quinta-Nova, L., & Ferreira, D. (2022). Analysis of the suitability for ecotourism in Beira Baixa region

- using a spatial decision support system based on a geographical information system. *Regional Science Policy & Practice*, n/a(n/a). <https://doi.org/https://doi.org/10.1111/rsp3.12583>
- Rahman, M. K., Masud, M. M., Akhtar, R., & Hossain, M. M. (2022). Impact of community participation on sustainable development of marine protected areas: Assessment of ecotourism development. *International Journal of Tourism Research*, 24(1), 33–43. <https://doi.org/https://doi.org/10.1002/jtr.2480>
- Ren, L., & Lei, W. (2022). Research on the Evaluation of Ecotourism Resources: Based on the AHP Model. *Mathematical Problems in Engineering*, 2022(1), 7398537. <https://doi.org/https://doi.org/10.1155/2022/7398537>
- Shao, B., Chen, L., & Xing, N. (2022). Wetland Ecotourism Development Using Deep Learning and Grey Clustering Algorithm from the Perspective of Sustainable Development. *Journal of Environmental and Public Health*, 2022(1), 1040999. <https://doi.org/https://doi.org/10.1155/2022/1040999>
- Tosun, C. (2000). Limits to community participation in the tourism development process in developing countries. *Tourism Management*, 21(6), 613–633. [https://doi.org/https://doi.org/10.1016/S0261-5177\(00\)00009-1](https://doi.org/https://doi.org/10.1016/S0261-5177(00)00009-1)
- World Bank. (2017). The Potential of the Blue Economy. In *The Potential of the Blue Economy*. <https://doi.org/10.1596/26843>
- Wu, X., Qiao, S., & Tan, Q. (2022). Destination Management for Ecotourism Activity Using Analytical Hierarchy Process. *Scientific Programming*, 2022(1), 4143060. <https://doi.org/https://doi.org/10.1155/2022/4143060>
- Yin, R. K. (2003). Case Study Research: Design and Methods 3Ed. In *Adoption Quarterly* (Vol. 3, Issue 3, pp. 101–106). https://doi.org/10.1300/J145v03n03_07