

Collective Action and the Growth of Shared Environmental Beliefs in Mangrove Ecotourism Development: A Case Study of Lantebung, Makassar

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Abstract

Sustainable mangrove ecotourism development can provide economic benefits from the mangrove ecosystem without damaging it, one of which is mangrove ecotourism in Lantebung. This ecotourism development involves various actors such as local government, community management groups (JEKOMALA) and non-governmental organizations. This cross-actor collaboration reflects the process of collective action interacting with one another according to the interrelationships and roles they play in solving problems. This study aims to analyze the form of collective action in the development of a mangrove ecotourism program in Lantebung, Makassar City. Using a qualitative case study approach, this study adopts the collective action theoretical framework developed by Carlsson (2000), which includes six dimensions, namely: (1) Contextual Factors, (2) Problem Definition, (3) Growth and Spread of Common Beliefs, (4) Trigger Factors, (5) Actor Mobilization, and (6) Coordination and Control. Data collection was conducted through in-depth interviews, document studies and field observations involving local government, non-governmental organizations, and civil society. The research results indicate that contextual factors, such as natural resource potential and community involvement, are the primary foundation for collective action. However, Lantebung ecotourism management still faces challenges such as suboptimal coordination and role allocation between stakeholders, low human resource capacity, and weak community management institutions. Nevertheless, the community's enthusiasm for environmental conservation and collective awareness of the importance of mangrove conservation are key strengths in maintaining ecotourism sustainability. This research confirms that the success of mangrove ecotourism development depends not only on natural potential but also on the effectiveness of collective action among stakeholders in creating synergy and sustainable collaborative governance.

Keywords: *Collective Action, Trust, Mangrove Ecotourism.*

Introduction

Indonesia as a maritime country has a water area of 6,315,222 km², with a coastline of 99,093 km², and the number of named and coordinated islands is 13,466 islands (Kusmana et al., 2014). Indonesia is a country with a larger water area compared to its land area. All phenomena that occur on land and at sea, whether caused by human activities or natural, will affect environmental changes. The phenomenon of global warming that causes climate change has an impact on rainfall patterns, rising sea levels, the occurrence of storms and high waves, and other impacts that can threaten human life. Changes in sea levels can cause negative impacts in the form of abrasion in coastal areas (Harry Yulianto & Iryani Iryani, 2024).

One of the problems facing coastal areas is abrasion, and increasing rates of abrasion can pose a threat to coastal areas. Abrasion is the erosion of land due to the activity of waves, currents, and tides, which can cause changes in the coastline (Harry Yulianto & Iryani Iryani, 2024).

Various environmental issues have led to a concept that offers a solution: ecotourism policies or programs. These programs aim to preserve coastal ecosystems, including preventing environmental damage, while also contributing to the provision of green open spaces. Furthermore, the economic

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aspect is also a concern, as ecotourism will have a direct economic impact on the community through tourism activities.

Ecotourism, or ecotourism, is an environmentally conscious tourism activity that prioritizes nature conservation, the socio-cultural and economic empowerment of local communities, and education. Ecotourism development offers numerous benefits and advantages: (Malik & Rahim, 2019)

1. Ecotourism can protect and preserve habitats, including their flora and fauna.
2. Ecotourism can provide insight, knowledge, and awareness to tourists and the community about the importance of protecting and preserving nature, including responsible and sustainable tourism.
3. Ecotourism development offers economic benefits because it does not require large infrastructure and capital/investment compared to conventional tourism.
4. By prioritizing community involvement in ecotourism operations, this creates employment opportunities and generates economic benefits. Furthermore, the provision of food facilities, such as food stalls, by the community around the ecotourism area can also empower and improve their well-being.
5. The community's socio-cultural values, including their local wisdom, will be increasingly protected, preserved, and recognized.

Based on this, the use of mangrove forests as ecotourism areas is increasingly important and developing also in Southeast Asian countries such as the Mangrove Area in Kuala Selangor Nature Park, Malaysia, Yaring Mangrove Education Center in Pattani, and Thailand (Malik & Rahim, 2019) In Indonesia, the development and development of ecotourism is regulated in the Regulation of the Minister of Home Affairs No. 33 of 2009 concerning the Development of Ecotourism in the Regions. This regulation clearly provides direction regarding the management of ecotourism in the regions by prioritizing aspects of sustainability and the need for collaboration or joint action in the management process (Regulation of the Minister of Home Affairs, 2010). In Indonesia, efforts to implement mangrove ecotourism have developed a lot, including one in Lantebung.

The development of mangrove ecotourism in Lantebung is also in line with regulations in Makassar City Regional Regulation Number 4 of 2015 concerning the Makassar City Spatial Plan (RTRW) for 2015-2034, which regulates the optimal use of regional space, including the development of mangrove ecotourism (DPRD, 2022). In this regulation, mangrove areas are identified as part of a protected area that functions to protect the coast from tidal flooding and maintain the balance of coastal ecosystems. This ecotourism development encourages the sustainable use of protected areas through nature-based tourism activities. This not only supports environmental conservation but also improves the welfare of local communities through local economic empowerment.

The mangrove forest in Lantebung remains relatively extensive, and its strategic location makes it a natural tourism destination. The mangrove potential earned Lantebung the Kalpataru Award from the Ministry of Environment and Forestry in 2020. In 2023, the area was also included in the Indonesian Tourism Village Award (ADWI) list awarded by the Ministry of Tourism and Creative Economy (ADMINDISPAR, 2023).

The mangrove ecotourism program in Lantebung is managed collaboratively by several actors, including the local government, community management groups, academics, and non-governmental organizations. The development of mangrove ecotourism in Lantebung is regulated by the Minister of Environment and Forestry Regulation (Permen LHK) No. P.83/MENLHK/SETJEN/KUM.1/10/2016 concerning Social Forestry, which has been further refined by Permen LHK No. 9 of 2021 (BPK, 2021), the regulation provides a legal basis for local communities to access, manage, and utilize forest areas sustainably through social forestry schemes, such as Community Forests (HKm), Village Forests, or Forestry Partnerships. In the context of mangrove areas, this regulation allows coastal communities, such as those in Lantebung, to legally and participatory manage mangrove ecosystems for conservation purposes while simultaneously improving the economy based on nature tourism. Through this regulation, collaboration between residents, the government, and other parties (such as NGOs or academics) in developing mangrove ecotourism becomes more structured and has strong legal legitimacy. Furthermore, this regulation also encourages community independence in preserving forest resources while developing local economic potential, which is the core of a collective approach to natural resource management.

Collective management of resource potential, specifically mangrove ecotourism, is crucial and supports the achievement of objectives. Research by Widiartanto et al. (2022) demonstrated that commitment, participation, and collective action among various parties significantly contribute to the sustainability of mangrove ecotourism management in Batang Regency, Central Java Province (Widiartanto et al., 2022). This finding aligns with research by Insainia (2025) that found a significant influence between communication, dialogue, and collective action on the sustainability of mangrove ecotourism management around the coast of Jakarta Bay (Isnaini et al., 2025).

The aforementioned research highlights the importance of collaboration and collective action in mangrove ecotourism management, but the context and focus of previous research differ significantly. This research emphasizes the sustainability aspect of existing management, focusing on the effectiveness of multi-actor collaboration within a relatively established context. Meanwhile, this research focuses on collective action in the development stage of mangrove ecotourism, not only on sustainable management.

The development of the mangrove ecotourism program in Lantebung, Makassar, is the result of the involvement of various actors such as local communities, government, and NGOs. This collaborative process reflects a form of collective action that does not occur spontaneously, but is influenced by various contextual factors, social dynamics, and institutions. However, the extent to which these actors are able to build a common ground regarding the urgency, vision, strategy, and impact of the existence of the ecotourism program in Lantebung, Makassar. Therefore, this study will analyze the collective action in the management of mangrove ecotourism in Lantebung that is influenced and impacts the environmental and economic aspects of the surrounding community.

Methods

This study uses a qualitative approach, focusing on analyzing the policy capacity of the South Sulawesi Provincial Government in empowering coastal and small island communities. The research design used is a case study. In the analysis process, the researcher utilized the policy capacity theory proposed by Carlson (2000) by focusing on how to build a common sense of urgency, vision, strategy and efforts in maintaining and managing mangrove ecotourism in Lantebung.

Data collection was conducted through observations and interviews with several informants, including the Head of Tourism Service, Head of Environment Service, Head of Marine, Fisheries Service, Village Head, Marine Conservation Foundation, Jekomala, Mongabay Indonesia, and the community around the Lantebung Mangrove Ecotourism area. In addition, the researcher also collected various documents, including research results and other relevant documents, to enrich the analysis. The collected data were then analyzed using data analysis techniques proposed by Creswell (2018): Organizing and Preparing Data, Reading Through All Data, Coding the Data, and Interpreting the Meaning of Themes/Descriptions.

Results and Discussion

The growth and spread of public trust dimensions explain how actors collectively understand the urgency of developing Lantebung mangrove ecotourism and the collective action efforts undertaken to achieve the desired goals, as proposed by Carlsson (2000).

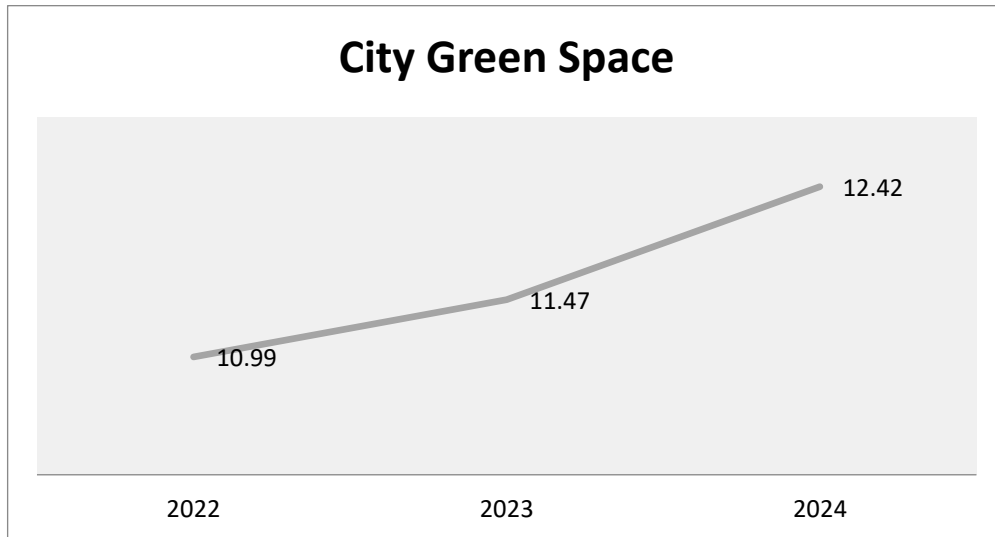
The research findings indicate that all actors, including Jekomala, the Tourism Office, the Environmental Office, and the Environmental Conservation Foundation (YKL), collectively understand the potential importance of developing mangrove ecotourism. This is confirmed by an interview with NN from the Environmental Office, who revealed:

“The Makassar City Government is focused on planting and rehabilitating mangroves as an effort to create and maintain green open space in Makassar, which, according to regulations, should be around 30%. Currently, we are still at 12%. Therefore, managing mangrove ecotourism requires a shared focus.” (July 19, 2025).

The interviews revealed that the city government views the development of mangrove areas not only as an environmental conservation effort but also as part of a strategy to increase Green Open Space (RTH) in urban areas. Mangrove planting and expansion directly contribute to improving the land cover quality index because mangroves have high ecological value and function as carbon sinks, coastal protection, and coastal ecosystem balancers. In this context, mangroves have a dual role; in addition to their ecological function, they also have great potential to be developed into sustainable ecotourism destinations. With a well-maintained environment and thriving mangrove vegetation, the

area can become an educational natural tourist attraction, where visitors can enjoy the natural beauty while learning about the importance of coastal ecosystem conservation. Thus, mangrove management that supports the improvement of RTH indirectly also strengthens economic potential through the development of ecotourism based on environmental sustainability.

Makassar City Green Space Percentage 2022-2024



Source: One Data for Makassar City Government (2024).

Makassar City's Green Open Space (RTH) achievement for the 2021–2024 period indicates that the city has not yet met the national target of 30% green open space as mandated by the Spatial Planning Law. Green open space achievement data for the past four years has not even reached half of the target, with the percentage of green open space still far below the established minimum standard. This situation reflects an imbalance between the growth of built-up areas and the provision of adequate ecological space, and demonstrates a lack of consistency in the implementation of spatial planning policies, including planning, supervision, and control of spatial use.

This lag in green open space achievement has significant ecological and social impacts on Makassar City. The lack of green open space worsens air quality, accelerates the rise in city surface temperatures (urban heat island), and weakens water absorption, contributing to the risk of flooding. Furthermore, the lack of public green space impacts the community's quality of life, particularly in terms of the availability of recreational and social spaces, as well as mental and physical health support. Ecologically, limited green open space also reduces the city's capacity to maintain biodiversity, especially coastal ecosystems which have an important ecological function as buffers for urban areas.

This situation has also been criticized by an NGO focused on environmental sustainability, particularly in marine and coastal areas, the Marine Conservation Foundation. Informant NY stated:

"The government's rampant development, which has taken over marine areas, has led to a decline in coastal areas, and the provision of green open space is increasingly urgent to prevent abrasion, flooding, and similar incidents. Therefore, the Lantebung mangrove ecotourism area requires joint management by all relevant parties, including the government, the community, and related organizations/communities. In addition to environmental aspects, the growing economic activity with an ecotourism-based management model is also crucial for maintaining this area. It has been proven that with proper management, community economic activity continues to grow." (July 7, 2025)

The Lantebung mangrove ecotourism area should be the focus of cross-actor collaboration—government, community, and environmental organizations and communities—due to its strategic role not only in conservation but also in community economic empowerment. Lantebung's experience demonstrates that ecotourism-based mangrove management can stimulate the growth of local economic activity without sacrificing environmental sustainability. Therefore, a co-management approach is a relevant model to implement so that this area can continue to develop as a productive, adaptive, and sustainable coastal green space, while providing tangible economic benefits to the surrounding community.

Types of Community Economic Activities in Lantebung, Makassar.

No.	Economic Activities	
	2020-2021	2022-2025
1.	Fishing for crabs and fish	Fishing for crabs and fish
2.	Growth of Micro, Small, and Medium Enterprises	Small community businesses that are only small stalls selling snacks, no longer culinary or local products/handicrafts.
3.	Provision of accommodation (homestays)	Tourism Manager
4.	Sale of handicrafts or local products	
5.	Tourism Manager/Tour Guide	
6.	Boat service providers	

Source: Various sources, processed by the author (2025)

Economic activity in the community around the Lantebung Ecotourism Area experienced a significant increase in 2020–2021 after the area was officially designated as a tourist destination. During this period, the community gained new economic opportunities through tourism services, informal trade, culinary arts, and home-based businesses run by fishing families. The surge in tourist visits—primarily due to the trend of nature tourism during the pandemic—was a major driver of the increased local economic turnover. However, this increase was short-lived because it was not accompanied by sustainable destination management, innovative tourist attractions, and consistent infrastructure and promotional support.

From mid-2022 onwards, economic activity began to decline, with the community gradually returning to traditional livelihoods such as fishing, crabbing, and small-scale trading at home. The decline in tourist interest, weak ecotourism management, and the lack of diversification of attractions led many local businesses to cease their economic activities. This situation resulted in decreased household incomes, increased economic vulnerability in coastal communities, and the loss of various new business opportunities that had developed during the ecotourism’s early days.

However, there has been one positive development: increased crab fishing by local communities. This is due to the improving quality of the mangrove ecosystem thanks to conservation and rehabilitation efforts undertaken by the private sector, local communities, and environmental NGOs. A well-maintained mangrove ecosystem creates an ideal habitat for mangrove crabs, resulting in more abundant and stable catches. Thus, despite the decline in the tourism sector, environmental sustainability supports the strengthening of nature-based livelihoods, which remain the primary source of support for coastal communities.

The decline in visitor numbers has led to a decline in demand for these products, which has resulted in a decline in entrepreneurial spirit and poor maintenance of MSME facilities. This situation indicates that the economic sustainability of local communities is still highly dependent on the number of tourist visits. Therefore, a more sustainable ecotourism management and promotion strategy is needed so that MSME activities can continue and the community continues to consistently benefit economically from the potential of mangrove ecotourism. Therefore, it is necessary to rekindle the spirit and social, economic, and environmental awareness to restore efforts to improve the community's economy while preserving the Lantebung mangrove ecosystem.

In addition to its economic impact by creating various business opportunities for the community, Lantebung mangrove ecotourism also makes a significant social contribution. One example is the community's regular mangrove seedling planting initiative, which is carried out jointly with the local community. This activity not only serves as an ecosystem conservation effort but also serves as a means of education and environmental awareness. Through these activities, the community is encouraged to understand the important role of mangroves as natural protectors of coastal areas from abrasion and as habitats for various marine life, supporting a balanced aquatic ecosystem. Social activities such as mangrove planting reflect the community's active participation and sense of collective responsibility for their environment. This participation demonstrates that ecotourism management in Lantebung is oriented not only toward economic gain but also toward ecological sustainability. Through collaboration between the community, the community, and the management, the mangrove planting

activity becomes a tangible symbol of the growing community-based environmental awareness within the coastal community. Thus, Lantebung ecotourism is not only a natural tourism destination but also a platform for community empowerment and environmental preservation, which go hand in hand.

The environmental and economic benefits of Lantebung ecotourism have made it clear to the government that the importance of developing this ecotourism is not limited to the government. The shared perception among stakeholders further strengthens the commitment of all stakeholders to develop Lantebung ecotourism. This awareness presents an opportunity to further develop Lantebung ecotourism. However, there have been no concrete steps demonstrating the government's commitment to revitalizing and improving the management of Lantebung mangrove ecotourism. These efforts are primarily initiated by environmental NGOs or private sector entities channeling their CSR funds, with the government acting solely as an administrative facilitator.

However, the dimensions of growth and general dissemination in collective action also concern the integration between multiple actors. Research shows that although the actors share a shared vision and perspective regarding the importance of mangrove ecotourism development, this is not accompanied by collective action by these stakeholders. Yet, to achieve the goals of Lantebung mangrove ecotourism development, collective action is unavoidable. This is because, fundamentally, the management authority rests with the South Sulawesi Provincial Government and Makassar City, which can then partner and take joint action with various other actors and related elements, such as the private sector, organizations/communities, and the local community. This can be realized by developing integrated, cross-sectoral programs or activities that involve all stakeholders through collective action. However, there is no integrated program implemented by all involved actors. Each actor, both agencies and the community, operates individually according to their respective functions and roles without a planned, clear, and systematic communication and coordination system.

Conclusion

This study concludes that the development of mangrove ecotourism in Lantebung is fundamentally driven by collective action among local government, community groups, non-governmental organizations, and local residents, where shared environmental awareness and common beliefs about conservation and economic benefits have emerged as key strengths. Nevertheless, this shared understanding has not been fully translated into effective collective action due to weak coordination, unclear role distribution, limited institutional capacity, and the passive role of government actors in program integration. As a result, ecotourism development has not been managed sustainably, leading to declining tourism-based economic activities despite continued ecological improvements in the mangrove ecosystem. Therefore, strengthening collaborative governance, enhancing community institutions, and ensuring more active and integrated government engagement are essential to transform collective awareness into sustained collective action that supports long-term environmental conservation and local economic resilience.

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