



## Literature Analysis: Local Community Involvement in Mangrove Forest Ecotourism Management in Indonesia

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**Abstract.** *Indonesia has vast mangrove forest potential with high biodiversity and great ecological benefits. One of the developing management approaches is community-based mangrove ecotourism which not only emphasizes economic aspects but also environmental conservation. This study aims to analyze the involvement of local communities in mangrove ecotourism management and its impact on mangrove forest conservation in Indonesia. The method used is literature analysis with a descriptive-qualitative approach to ten studies published in the last 5-10 years. The results of the analysis show that active community participation in planning, implementing and evaluating the management of ecotourism areas contributes significantly to the sustainability of mangrove ecosystems. Despite the challenges of unequal capacity and strategic roles, this study confirms that community involvement is an important pillar in the success of community-based conservation. Thus, a collaborative approach between the community, government, and other stakeholders needs to be continuously strengthened to support ecotourism as well as mangrove conservation.*

**Keywords:** *Conservation, Community Engament, Mangrove Ecotourism.*

### 1. BACKGROUND

Indonesia is known as the largest archipelago and the owner of the longest coastline in the world, causing Indonesia to have the potential for vast mangrove forests with high biodiversity (Wahyuni, 2020). This ecosystem is a group of trees that grow in the area around the shoreline and are influenced by tides and the accumulation of organic matter, and plays a crucial role for the environment. The benefits of mangrove forests are diverse and essential, including the prevention of abrasion and soil erosion through its strong root system that serves as a protective coastal area, to contribute to the global carbon cycle (Wahyuda et al., 2022). In addition, mangrove forests provide vital habitats for a wide variety of animals and abundant food resources that support the food security of coastal communities through the provision of biological resources (Nurhayati et al., 2023).

According to Rachmansyah & Nizar (2018) mangrove forests also hold great potential in the tourism sector, especially through an ecotourism approach based on the principles of conservation and empowerment of local communities. In recent decades, the concept of ecotourism has begun to be developed as an alternative approach to mangrove area management. Ecotourism does not simply emphasize nature-based tourism activities, but

places local wisdom and environmental conservation as the main foundation (Participation & Pada, 2022).

In Indonesia, the application of mangrove-based ecotourism is growing, as public and government awareness of the importance of maintaining vulnerable coastal ecosystems increases (Harto et al., 2021). Ecotourism has an important role in conservation, including being a source of funding for environmental protection efforts and research, encouraging the protection of conservation areas and biodiversity, and increasing environmental awareness and appreciation among parties not only as local-based tourism. The success of mangrove ecotourism management is highly dependent on the extent to which local communities are actively involved in the management process starting from the planning, implementation, utilization, to monitoring and evaluation stage (Nurhayati et al., 2023)

The involvement of local communities in ecotourism management is not only important in terms of empowerment, but also key to conservation sustainability. Active community participation can strengthen social ownership of mangrove forest areas, encourage the transfer of local knowledge, and build a sense of collective responsibility for environmental sustainability (Setiyaningrum et al., 2020). More than just technical involvement in tourism activities, community involvement implies that local communities have a strategic position as key stakeholders in maintaining ecosystem sustainability. When communities are substantially involved, they not only become physical managers of tourist areas, but also agents of change who are able to integrate cultural values, local wisdom, and sustainable conservation practices in the ecotourism management system (Lelloltery et al., 2020).

With the background of the above thoughts as well as in research conducted by Galvanized et al., (2024) shows that community involvement in ecotourism management has positive results on the sustainability of mangrove forest and ecosystem conservation, in addition to the economic impact of sustainability for the community. In line with research conducted by Ramadan et al., (2023) with community involvement in mangrove forest ecotourism management contributes significantly to the implementation of conservation. It is proven that this collaborative approach is relevant in encouraging conservation, increasing local income. Based on the literature review that has been described regarding the importance of understanding more comprehensively the forms of community involvement that have been implemented, their success, and the challenges faced in mangrove ecotourism management. Thus, this research focuses on examining the role of local community involvement in mangrove forest ecotourism management in Indonesia as conservation sustainability.

## 2. RESEARCH METHOD

This research uses a descriptive qualitative approach using a narrative literature review analysis method that aims to identify and examine in depth a number of published studies related to local community involvement in mangrove forest ecotourism management in Indonesia. The data sources of this research come from journals and papers obtained online through national and international publisher databases such as EBSCO, ScienDirect, Proquest, ISJD, Scolar, Garuda Ristekbrin, and others that discuss the involvement of local communities in mangrove forest ecotourism in the range of the last 5-10 years. After the data is obtained, it will be reviewed in depth and the results synthesized to provide comprehensive information.

## 3. RESULTS AND DISCUSSION

Based on journals and papers that have been published within the last 5-10 years, obtained through national and international publisher databases that have been selected, selected, and searched with predetermined keywords. The results of several journals related to the involvement of local communities in mangrove forest ecotourism management where it answers the objectives of this study analyzing and synthesizing various results of previous studies related to the involvement of local communities in mangrove forest ecotourism management. This is evident from several summaries of literature that have been summarized as follows.

**Tabel 1. List of Literature Summary Findings.**

Author	Titel	Result
Galvanis et al., 2024	Strategi Pengelolaan Mangrove Berkelanjutan Berbasis Sosial Ekonomi di Kecamatan Kuala Jambi, Kabupaten Tanjung Jabung Timur, Provinsi Jambi	This study states that the mangrove ecosystem is considered economically sustainable. As well as the integration of local community participation in the socio-economic-based sustainable mangrove management strategy in Kuala Jambi District has a high relevance for the preservation of ecosystems, conservation, and the welfare of residents. Although in fact there are still many people who do not participate in ecotourism

		management. But through this approach it has proven effective in slowing the decline in mangrove cover and increasing the socio-economic sustainability index through the development of ecotourism and silvofishery systems.
Abd Qodir Jailani & Zuska, (2022)	Pengembangan Ekowisata Mangrove berbasis Masyarakat Desa Batu Ampar Kabupaten Anambas	The development of ecotourism in Batu Ampar Village with community participation in its management shows that there is a high relevance for the preservation of coastal ecosystems and the improvement of local welfare. The community has developed an ecotourism plan based on local knowledge, is ready to support tourist visits, and implements management strategies. This active involvement of the community shows that there is a positive influence on economic and environmental aspects.
Nurhayati et al., 2023	Strengthening Local Community in Mangrove Ecotourism at Pandangandaran, West Java Province, Indonesia	This study states that local communities in mangrove ecotourism in Pangandaran must maximize strengths and opportunities through SWOT strategies, such as increasing public awareness of the importance of the function of mangrove ecosystems as habitat and shoreline protection. Although it has encouraged increased income and conservation awareness, sustainable management still requires deepening conservation governance through technical training, diversifying funding sources, and integrating local cultural

		values so that mangrove ecotourism in Pangandaran is truly inclusive, sustainable, and contextualized.
Pelenkahu et al., 2023	Partisipasi Masyarakat Lokal dalam Pengelolaan Wisata Mangrove Di Kecamatan Bunaken Kota Manado	Community perception in ecotourism management in Bunaken District is good. This means that the community understands the management of mangrove tourism. The level of local community participation starting from the planning, implementation, utilization and evaluation stages is in the good category, with an average value of 70%. This means that not only does it have a positive effect on conservation awareness, the people of Bunaken District have experienced an increase in local welfare.
PUTRI et al., 2020	Community Empowerment In The Development of Mangrove Tourism in Batu karas of Pandangaran, West Java	This study shows that community-based mangrove ecotourism management in Batu Karas has succeeded in encouraging active involvement of residents in environmental conservation while improving local economic welfare. This success is reflected in community participation in conservation activities and sustainable utilization of mangrove resources. However, strengthening local institutions, increasing human resource capacity, and integrating cultural values are still needed to ensure more inclusive and sustainable management in the long term.
Harto et al., 2021	Development Strategy Mangrove Ecotourism	Bandar Bakau ecotourism has at least 24 types of mangrove species that can be an

	Based on Local Wisdom	attraction such as nature schools, educational tours, and biodiversity. Reflecting high relevance to the preservation of coastal ecosystems and improving the welfare of local communities. The community actively participates in the planning and management of mangrove tourism through the formation of tourism awareness groups, capacity training, and cross-sector collaboration involving the village government, private sector, and environmental NGOs. However, the management has not been fully professionalized due to limited capacity and understanding of the community.
Sari, (2022)	Analisis Partisipasi Masyarakat Pada Kawasan Ekowisata Mangrove di Kelurahan Lubuk Ketrang Kabupaten Langkat	This study states that the management of mangrove ecotourism areas in Langkat Regency shows high relevance to the preservation of coastal ecosystems and strengthening local socio-economic capacity. This research reveals that community participation is in the medium category, with a level of involvement of around 60% in the decision-making, implementation, and monitoring and evaluation stages. The community is involved through mangrove farmer groups and conservation activities, but the economic impact is still limited because the majority of residents work as farmers and laborers, so only a small

		portion is in direct contact with ecotourism activities.
Setiyaningrum et al., 2020	Pengelolaan eduwisata Mangrove Berbasis Masyarakat: Studi Kasus di Desa Gedangan, Purworejo, Jawa Tengah, Indonesia	Conservation activities have been actively carried out through mangrove planting since 2011, not only producing positive impacts on environmental sustainability. However, the integration of Gedangan Village community participation in mangrove edu-tourism management in Purworejo Regency shows high relevance to the preservation of coastal ecosystems and strengthening local capacity. This educational tourism management initiative arises from the community itself with self-supporting capital, supported by the government and external communities. This mangrove edu-tourism also has a direct economic impact on the community, both as a main and additional source of income, through the sustainable use of ecosystem resources.
Ramadan et al., 2023	Partisipasi Masyarakat Lokal dalam Pengelolaan Ekowisata Mangrove Petengoran di Desa Gebeg	This study states that the participation of the Gebang Village community in the management of Petengoran mangrove ecotourism contributes significantly to the implementation of conservation but is still low at the decision-making and evaluation stages. However, there are opportunities through external factors such as institutional support and crosssector partnerships showing high categories, while internal community

		factors still need to be strengthened. This collaborative approach has proven relevant in promoting conservation, increasing local income.
Safrianti et al., 2025	Pengembangan Potensi Ekowisata Berbasis Masyarakat Pada Hutan Mangrove Kampung Sejahtera Kota Bengkulu	This study shows that the involvement of the Kampung Sejahtera community in mangrove ecotourism management plays an important role in supporting conservation activities and local economic empowerment. The community is active in the implementation of programs such as reforestation, mangrove-based UMKM development, and tourism promotion.

Local community participation in mangrove ecotourism management has not only been shown to play an important role in improving the welfare of coastal communities, but also in environmental conservation. When the community is not only the object of development, but also participates as an actor managing the ecotourism area, conservation efforts become more contextual, sustainable, and rooted in local needs and values. The development of mangrove ecotourism in Indonesia shows a close relationship between the success of environmental conservation and the level of participation of local communities. As shown by Pelenkahu et al. (2023), community participation in Bunaken District covers all stages of management, from planning to evaluation, and has a direct impact on increasing conservation awareness. This is in line with the findings of Abd Qodir Jailani & Zuska, (2022) in Batu Ampar Village, which highlighted the existence of a tourism development plan developed by the community themselves based on an understanding of local potentials and limitations. Both studies show that full community involvement generates a sense of ownership that strengthens commitment to mangrove ecosystem conservation.

This strong involvement also turns out to be the basis for socio-economic management strategies as found by Galvanized et al., (2024) in Kuala Jambi. Although participation has not been optimal in the decision-making aspect, involvement in silvofishery practices and ecotourism activities shows the effectiveness of the community-based approach. But through

this approach, the sustainability of mangrove forest conservation in Kula Jami will continue in the participation of mangrove debt ecotourism management. This directly intersects with the results of the study by Ramadan et al. (2023) in Gebang Village, which mentions the importance of strengthening capacity and participatory structures so that the role of the community is not only at the implementation level, but also influential in the policy planning and evaluation process.

In the context of institutional strengthening, studies by Harto et al. (2021) and Nurhayati et al. (2023) also emphasize the importance of supporting local values and environmental education in shaping community participation that is not only responsive, but also reflective of long-term conservation. In Pangandaran, for example, the SWOT strategy approach shows that communities can be empowered with education and strengthening of local institutions so that conservation goes hand in hand with economic empowerment. Harto also noted that cross-sector collaboration between the community, local government and non-governmental organizations is key in improving the professionalism of ecotourism management.

Similar findings emerged in the research of Setiyaningrum et al. (2020) in Gedangan Village, which showed community initiative in building a mangrove education area independently. However, as also noted by Sari (2022) in Lubuk Kertang, this potential will run optimally if supported by cross-sectoral assistance and institutional integration. Thus, these studies show a pattern that in areas with strong initiatives but limited capacity, collaborative strategies are the key to strengthening. When external support is present as a facilitator, not as a controller, then community participation tends to be more sustainable in the success of mangrove forest ecotourism which will have an impact on conservation.

Furthermore, research by Putri et al. (2020) in Batu Karas illustrates that community involvement in training and tourism business development is very helpful in improving welfare without neglecting conservation. This was followed by findings by Abd Qodir Jailani & Zuska, (2022) which outlines that the Batu Ampar community has a high ecological awareness, as evidenced by acceptance of the program to prohibit mangrove wood harvesting and involvement in the development of MSMEs based on nature tourism. Both studies show that when community capacity building is balanced with direct economic benefits, their commitment to conservation increases.

Meanwhile, a study by Safrianti et al. (2025) in Kampung Sejahtera highlighted that community support in technical activities, such as reforestation and tourism promotion, is an effective first step. However, for more sustainable management, capacity building in managerial aspects and long-term planning strategies are needed. This indicates that technical success must be followed up by strengthening social structures and the role of the community in strategic decision-making.

In the explanation above, it can be seen that there is a common thread that mangrove ecotourism management that involves the community actively and thoroughly both in the aspects of implementation

and decision making has a positive impact on conservation success and socio-economic welfare. The integration of local knowledge, institutional strengthening, and empowerment-based strategies is the main foundation in creating sustainable ecotourism management. With a comprehensive approach and community participation strengthened through the integration of local knowledge, adaptive institutions, and sustainable empowerment strategies, mangrove ecotourism is not only a means of nature conservation, but also a real instrument of equitable community-based development.

#### **4. KESIMPULAN**

Based on the results of the literature review that has been analyzed, it can be concluded that the involvement of local communities in mangrove ecotourism management has a significant contribution to the success of coastal ecosystem conservation efforts. This involvement not only has an economic impact through improving community welfare, but also strengthens residents' sense of belonging, responsibility, and ecological awareness of the importance of maintaining environmental sustainability. Studies drawn from how the role of communities in mangrove forest ecotourism management from various regions in Indonesia show that when communities are substantially empowered through training, inclusive institutions, and integration of local values. Then mangrove ecotourism management can run sustainably. Nevertheless, challenges are still found in the form of uneven participation in strategic aspects such as planning and evaluation. There is still a need for a collaborative approach that combines the roles of the community, government, and other sectors to be the main key in creating inclusive and equitable conservation-based ecotourism.

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