

SUSTAINABLE ECOTOURISM DEVELOPMENT AND MANAGEMENT MODEL IN BANDA MARINE PARK

TONO MAHMUDIN ^{1*}, JOHANIS HIARIEY ², RENOLDY LAMBERTHY PAPILAYA ³
and DIONISIUS BAWOLE ⁴

¹ Christian University Indonesian Maluku, Department of Development Economics, Indonesia.

^{2,3,4} Pattimura University, Department of Fisheries Agribusiness, Indonesia.

Email: ¹ mahmudintono123@gmail.com (*Corresponding Author), ² johanishiariey6@gmail.com,

³ renoldyailaya9@gmail.com, ⁴ dionbawole19@gmail.com

Abstract

The Banda Marine Tourism Park, Central Maluku Regency, Maluku Province, has extraordinary ecotourism potential. This potential includes the beauty of the underwater world, marine biodiversity, and high historical and cultural value. However, this potential has not been optimally optimized. This research aims to develop a sustainable ecotourism development and management model in the Banda Sea Aquatic Tourism Park, Central Maluku Regency, Maluku Province. This study used qualitative research methods. The way to collect data in this research is by conducting a literature study and referring to various relevant and trustworthy text sources. After the data is collected, analysis is carried out in three steps: data reduction to filter significant information, data presentation to visualize the findings, and conclusion to describe the effectiveness of the research results. The research results found that the model for developing and managing sustainable ecotourism in the Banda Marine Aquatic Tourism Park, Central Maluku Regency, Maluku Province, involves a series of strategies that encourage the active participation of local communities in the management process. Conservation principles are applied in the area's management, including restoring damaged ecosystems and protecting endangered species. In addition, an educational approach is accepted through outreach and training programs.

Keywords: Development, Management, Sustainable Ecotourism.

INTRODUCTION

Banda Sea Marine Tourism Park (TWP Laut Banda) is an aquatic tourism destination in Central Maluku Province, Indonesia, established based on the Minister of Marine Affairs and Fisheries Number 69/MEN/2009 Decree. The management of the Banda Sea TWP is regulated by the Decree of the Minister of Marine Affairs and Fisheries Number 58 of 2014. The Banda Sea TWP area has an area of about 2,500 hectares. There are 10 islands in the Banda Sea TWP, divided into three large islands and seven small islands. The large islands are Banda Besar Island, Neira Island, and Gunung Api Island (Pratitis et al., 2017).

The ecosystems in the Banda Sea TWP consist of two types, namely seagrass ecosystems and coral reef ecosystems, with more than 300 coral species found in seagrass ecosystems. The Banda Sea TWP is home to around 600 fish species, seagrass, and coral. There are 34 seabed dive sites in the waters of the Banda Sea TWP (Dobo, 2019). The natural conditions in the Banda Sea TWP allow for various tourism activities, such as sailing, sunbathing, surface diving, and underwater photography. Environmental conservation efforts in the Banda Sea TWP involve the application of local wisdom, such as prohibiting the capture of resources in certain areas and times.

Banda Marine Tourism Park, Central Maluku Regency, Maluku Province, has extraordinary ecotourism potential. Ecotourism is the development of tourist destinations that aim to preserve the environment. This concept emerged to balance the tourism industry and environmental preservation. Ecotourism offers tourists a satisfying and educational experience while providing a positive economic impact on local communities and maintaining environmental sustainability (Taghulih et al., 2019).

The ecotourism potential in the Banda Sea waters covers a wide range of aspects, from underwater natural beauty to marine biodiversity and high historical and cultural values. In it, there is a stunning underwater panorama with lush coral reefs and a variety of marine life that lives in it. In addition, the presence of diverse fish species is also a unique attraction for visitors. In addition, the region also has a rich historical value, primarily related to the history of shipping and the spice trade in the past. The well-preserved local culture is also an added attraction for tourists interested in an authentic experience. Despite this vast potential, it has not been fully utilized optimally for ecotourism activities.

Research by Yan et al. shows that although many studies on sustainable ecotourism have focused on economic and environmental sustainability, the social and cultural impacts on indigenous peoples are often overlooked. This phenomenon is due to each country's unique and complex cultural diversity and regional characteristics that affect ecotourism planning and management (Mohamad et al., 2024). Similar research by (Akbar et al., 2023) found that Pasanggrahan Village has natural and cultural potential that can be utilized to promote sustainable ecotourism while providing benefits to the local community and the environment. Factors such as waste management and environmental cleanliness are crucial, where good infrastructure is needed, and education on maintaining a clean environment needs to be improved. In addition, transparency in infrastructure development, such as the bridge in the Cipondok Spring area, is also an essential step in maintaining public trust.

The practical implications of the research on the development and management model of sustainable ecotourism in the Banda Sea Tourism Park, Central Maluku Regency, Maluku Province, provide valuable insights for local governments and related stakeholders on the importance of involving local communities in environmental conservation and tourism development efforts. Implementing these participatory strategies can increase awareness of environmental sustainability and mobilize local communities to be part of the solution to conservation issues. This research aims to develop a model for developing and managing sustainable ecotourism in the Banda Sea Marine Tourism Park, Central Maluku Regency, Maluku Province.

METHODS

This research utilizes qualitative research methods. Qualitative research is a research method used to investigate, describe, and find the object under study. This method emphasizes analysis and description and uses more in-depth and subjective data analysis. Qualitative research is used to explain a phenomenon and the features of social influences, which can then be explained and measured using a quantitative approach (Fiantika et al., 2022). The way to collect

data in this research is by conducting a literature study and referring to relevant and reliable text sources. After the data is collected, the analysis is carried out in three steps: data reduction to filter out significant information, data presentation to visualize the findings, and conclusion drawing to formulate implications from the research results.

RESULT AND DISCUSSION

Tourism is one of the many fields that include the industrial sector in providing services and services and has become a sector that the Indonesian people rely on to increase state revenue. In its development, the tourism sector in Indonesia continues to grow bigger. It has a variety to produce a destination that can become the main attraction and destination for tourists. Until now, people who want to travel prefer tours related to nature that are integrated with various community participation related to social culture. Connecting with nature has become a need to be fulfilled as part of developing the world of tourism (Ridlwan et al., 2017).

Coastal tourism areas in Indonesia are essential for development related to tourism development with the concept of sustainable tourism, so they protect the environment to avoid various damages and provide guarantees for a better life for local communities in the future. The basic principles of Sustainable Tourism are guided by the Strategic Plan of the Ministry of Tourism and Creative Economy of the Republic of Indonesia in 2012-2024, which states that activities in utilizing the environment need to be carried out in such a way as to pay attention to sustainability by protecting the original environment, the surrounding community, and need to see the impact in the future. In doing sustainable tourism, it is necessary to utilize natural resources as well as possible concerning carrying capacity so the environment will always be maintained, and a sustainable economy will also be felt by all parties concerned (Insani et al., 2019).

Sustainable tourism should also continue to be developed because various tourism activities will usually disrupt the ecosystem and cause sustainability to be unmaintained (Erwiantono et al., 2017). The majority of the tourism sector has shifted to the development of sustainable tourism to protect the natural environment by not destroying it. This sustainable tourism is realized through ecotourism, which is defined as the perception of development from a sense of concern for various problems that occur in the environment to the socio-economy. The main goal of developing ecotourism is to increase state income by reducing the losses caused by conventional tourism, which costs money (Baroroh, 2019). The characteristics of ecotourism are tourism related to nature so that it helps preserve and maintain the original natural environment, there is new knowledge gained when visiting, and there is management that impacts sustainability (Hanum et al., 2021).

Ecotourism is also known as a derivative form of sustainable tourism sector development. Ecotourism is not only nature lovers who realize it but is related to various environmental problems that arise. Ecotourism also offers a tourism sector that is combined with beauty and sustainability that can be enjoyed in the long term. Ecotourism solves problems that answer concerns when the tourism sector is built. The main thing that is done in the concept of ecotourism is based on the preservation of nature that is prioritized (Haryanto, 2014).

Ecotourism in Indonesia is regulated by the Minister of Home Affairs Regulation No. 33 of 2009, which states that ecotourism is part of an effort to preserve the environment so that it can become the leading sector of an area (Amiruddin & Arifin, 2020).

In Indonesia, there are fifteen ecosystems related to marine tourism, namely coral reefs, seagrasses, mangroves, and estuaries. These four ecosystems have high environmental and economic potential (Harto et al., 2021). The Strategic Plan and/or Master Plan for Kerujuk Ecotourism addresses the required environmental capacity and support. The development of Kerujuk Ecotourism involves a Destination Management Organization (OMD) consisting of representatives of various parties, ensuring effective and coordinated management and a clear division of tasks with defined funding sources.

Private and public sector involvement is based on existing legal foundations. Destination governing organizations regularly conduct monitoring and evaluation systems that cover environmental, economic, social, cultural, tourism, and human rights issues. Tourism impact mitigation procedures are supported with straightforward funding. Guidelines, regulations, and policies related to planning, zoning, land use, building design, materials, construction, and demolition are openly communicated and enforced. A tourism standards system is in place to ensure sustainable tourism activities, with certification for businesses that meet these standards, which are then published for public information. Promoting tourism products and services is conducted accurately, authentically, and responsibly per Kerujuk's environmental and community conditions (Juliartini et al., 2024).

Banda Sea Marine Tourism Park (TWP Laut Banda) is a marine tourism area in Central Maluku Province, Indonesia. Its status is determined by the Decree of the Minister of Marine Affairs and Fisheries Number 69/MEN/2009, while its management is regulated by the Decree of the Minister of Marine Affairs and Fisheries Number 58/2014. The Banda Sea TWP area has an area of approximately 2,500 hectares.

The Banda Sea Marine Tourist Park (TWP) is part of the National Marine Protected Area, established by the Decree of the Minister of Marine Affairs and Fisheries of the Republic of Indonesia Number 69/Men/2009, which aims to protect biodiversity and marine ecosystems in Maluku Province. This area is an essential habitat for various marine biota and acts as a feeding and nursery area. To understand the condition of seagrass beds, an essential part of the ecosystem, research was conducted in the Banda Sea TWP, providing information needed for their management and conservation.

Geographically, the Banda Sea TWP is located between Neira Island, Gunung Api Island, Ai Island, Sjahrir Island, and Hatta Island, part of the Central Maluku Regency, Maluku Province. Access to the location can be done by ferry from Ambon City, a trip of about one night. Here, tourists can enjoy various marine activities, such as snorkeling, diving, fishing, and the beauty of the underwater world, including various fish species and stunning coral reefs.

The management of the Banda Sea TWP has been regulated through the Decree of the Minister of Marine Affairs and Fisheries number 58/KEPMEN-KP/2014. Managed by the Directorate General of Marine Spatial Management through the Technical Implementation Unit of the

Kupang National Marine Protected Area Center (BKKPN), the area covers approximately 2,500 hectares. Administratively, the Banda Sea TWP is located in Banda District, Central Maluku Regency, Maluku Province. Coral reefs are one of the main assets in the Banda Islands, with more than 300 species of hard corals and 683 types of reef fish identified.

This potential is the main tourist attraction, in addition to historical tourism and agro-tourism on mainland Banda Island. The Banda Islands have their uniqueness with their fantastic coral reefs, providing an unforgettable experience for visitors. Their natural potential and underwater beauty are essential factors in developing sustainable tourism in the region while maintaining environmental sustainability and biodiversity.

The Sustainable Ecotourism Development and Management Model at the Banda Sea Waters Tourism Park, Central Maluku Regency, Maluku Province, aims to integrate environmentally, socially, and economically responsible ecotourism practices to conserve the biodiversity of the Banda Sea while improving the welfare of local communities. The sustainable ecotourism development and management model in the Banda Sea Marine Tourism Park, Central Maluku Regency, Maluku Province, involves a series of strategies that focus on the active involvement of local communities in the management process. This includes forming community groups involved in decision-making, participating in environmental monitoring and maintenance, and training to improve skills in ecotourism.

Conservation principles are applied in the area's management, including restoring damaged ecosystems and protecting endangered species. In addition, an educational approach is applied through outreach and training programs aimed at increasing understanding of biodiversity and the importance of environmental conservation.

The promotion of responsible tourism is also a focus, prioritizing sustainable and environmentally friendly activities and introducing tourists to indigenous peoples' local cultures and traditions. The ultimate goal is to raise awareness of the importance of environmental conservation and local culture while reducing negative impacts on ecosystems and the sustainability of local communities.

CONCLUSION

The sustainable ecotourism development and management model in the Banda Sea Tourism Park of Central Maluku Regency, Maluku Province, involves a series of strategies that emphasize the active participation of local communities in the management process. These initiatives include forming community groups that are involved in decision-making, contributing to environmental monitoring and maintenance, and training to improve ecotourism skills.

Conservation principles are consistently applied in the management of the area, with a focus on restoring affected ecosystems and protecting endangered species. In addition, an educational approach is also adopted through outreach and training programs, which aim to improve the community's understanding of the importance of biodiversity and environmental conservation.

References

- 1) Akbar, B. A., Cahyani, N. S. N., Ratnasari, A., Rahayu, C. S., Anisa, M. S., Gunawan, W. A., Komalasari, D., Khaerunnisa, H., Sukanto, R. Y., & Al Faqih, A. (2023). Strategi Pengelolaan Ekowisata Berkelanjutan di Desa Pasanggahan. docx. *Jurnal Pengabdian Kepada Masyarakat Nusantara*, 4(4), 4104–4108.
- 2) Amiruddin, A., & Arifin, Z. (2020). Perencanaan Pengembangan Desa Ekowisata Berkelanjutan Berbasis Kearifan Lokal (Study Kasus Desa Tongke–Tongke). *Jurnal Ilmiah Administrasita*, 11(1), 16–24.
- 3) Baroroh, K. (2019). Pembelajaran berbasis masalah ekowisata pada mata pelajaran ekonomi SMA. *Jurnal Ekonomi & Pendidikan*, 16(2), 69–80.
- 4) Dobo, J. (2019). Biodiversitas ikan padang lamun di Taman Wisata Perairan Laut Banda, Maluku. *Munggai: Jurnal Ilmu Perikanan Dan Masyarakat Pesisir*, 5(1), 35–41.
- 5) Erwiantono, E., Susilo, H., Aditya, A., Saleha, Q., & Budiayu, A. (2017). Analisis kebijakan untuk pengembangan ekowisata berkelanjutan di kawasan perairan Labuan Cermin–Kabupaten Berau, Kalimantan Timur. *Jurnal Kebijakan Sosial Ekonomi Kelautan Dan Perikanan*, 6(1), 47–63.
- 6) Fiantika, F., Wasil, M., Jumiayati, S. R. I., Honesti, L., Wahyuni, S. R. I., Mouw, E., Mashudi, I., Hasanah, N. U. R., Maharani, A., & Ambarwati, K. (2022). Metodologi penelitian kualitatif. *Metodologi Penelitian Kualitatif. In Rake Sarasin (Issue March)*. Surabaya: PT. Pustaka Pelajar. [https://Scholar. Google. Com/Citations](https://scholar.google.com/citations).
- 7) Hanum, F., Dienaputra, R. D., Suganda, D., & Muljana, B. (2021). Strategi pengembangan potensi ekowisata di desa malatusuka. *Jurnal Master Pariwisata (JUMPA)*, 8(1), 22–45.
- 8) Harto, S., Mulyadi, A., & Ismandinto, I. (2021). Pengembangan Berkelanjutan Bandar Bakau Dumai Sebagai Ekowisata Di Riau Pesisir. *Jurnal Enggano*, 6(2), 358–368.
- 9) Haryanto, J. T. (2014). Model pengembangan ekowisata dalam mendukung kemandirian ekonomi daerah studi kasus provinsi DIY. *Jurnal Kawistara*, 4(3).
- 10) Insani, N., A`rachman, F. R., Sanjiwani, P. K., & Imamuddin, F. (2019). Studi kesesuaian dan strategi pengelolaan ekowisata Pantai Ungapan, Kabupaten Malang untuk pengembangan pariwisata berkelanjutan. *Jurnal Teori Dan Praksis Pembelajaran IPS*, 4(1), 49–58.
- 11) Mohamad, N., Lihawa, F., Baderan, D. W. K., Mahmud, M., & Lahay, R. J. (2024). Model Pengelolaan Ekowisata Berkelanjutan Berbasis Masyarakat Suatu Analisis Bibliometrik Dan Tinjauan LiteratuR. *Jurnal Biogenerasi*, 9(1), 927–939.
- 12) Pratitis, A., Susilowati, R., & Januar, H. I. (2017). Sitotoksitas Invertebrata Laut sebagai Biomarker Lingkungan Di Kawasan Konservasi Perairan Pulau Banda. *Jurnal Pascapanen Dan Bioteknologi Kelautan Dan Perikanan*, 11(2), 139–146.
- 13) Ridlwan, M. A., Muchsin, S., & Hayat, H. (2017). Model Pengembangan Ekowisata dalam Upaya Pemberdayaan Masyarakat Lokal. *Politik Indonesia: Indonesian Political Science Review*, 2(2), 141–158.
- 14) Taghulih, K. E., Kumenaung, A. G., & Tumangkeng, S. Y. L. (2019). Pengembangan Ekowisata Sebagai Sektor Unggulan Kota Manado (Studi Kasus Obyek Wisata Bunaken). *Jurnal Berkala Ilmiah Efisiensi*, 19(02).