

Opportunities and Challenges of Marine Tourism in South Malang, East Java, Indonesia

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Date of Submission: 05-04-2025

Date of Acceptance: 15-04-2025

ABSTRACT: This study assesses the feasibility of developing sustainable marine tourism in South Malang, Indonesia, by evaluating key factors such as natural resources, cultural heritage, and infrastructure. Using field surveys, stakeholder interviews, and visual assessments across 50 beaches, 15 critical criteria were analyzed, including accessibility, market potential, and environmental sustainability. The results highlight significant opportunities for eco-tourism development, particularly in beaches like WatuLepek and Pasir Panjang, which score higher due to better infrastructure and environmental management. However, challenges such as inadequate infrastructure, limited eco-friendly accommodations, and low environmental awareness were identified, especially in areas like Licin and Sipelot. The study concludes that with targeted infrastructure improvements, effective environmental management, and meaningful community engagement, South Malang can capitalize on its natural and cultural assets to develop a sustainable tourism model that aligns with global trends. These findings provide a strategic framework for balancing economic growth with environmental conservation, positioning South Malang as a competitive eco-friendly destination in the international tourism market.

KEYWORDS: Marine tourism, sustainable development, infrastructure, South Malang, environmental management, community engagement, SWOT analysis.

I. INTRODUCTION

Indonesia's marine tourism sector has immense untapped potential due to its vast coastline, rich biodiversity, and vibrant cultural heritage. With over 17,000 islands and diverse ecosystems, Indonesia is strategically positioned to be a global leader in marine tourism. The country's diverse marine life, coupled with the unique traditions of coastal communities, attracts both domestic and international tourists. Regions like Tasikmalaya, known for their rich cultural heritage and biodiversity, have already begun drawing special interest tourism, such as adventure and ecotourism, further boosting Indonesia's global status in marine tourism [1]. This study focuses on unlocking the untapped marine tourism potential, particularly in southern Malang, Java, where this potential has yet to be fully realized. South Malang's coastline, with its numerous beaches, presents significant opportunities for marine tourism. However, challenges such as infrastructure deficits, environmental pressures, and limited community involvement hinder development. Poor infrastructure, particularly transportation and facilities, severely restricts tourism growth by limiting access to attractions and services [2]. Inadequate infrastructure stunts economic growth in the region, as shown by its inability to meet tourist expectations [3-5]. Sustainable tourism in South Malang requires improvements in transportation, lodging, and other basic facilities [6].

Environmental challenges, like pollution and resource depletion, necessitate the adoption of sustainable tourism practices. Coastal tourism, if not

properly managed, can degrade ecosystems [7]. South Malang faces heightened environmental risks due to increasing tourism without proper protections, leading to habitat loss and pollution [8]. As tourists become more aware of environmental issues, destinations that prioritize ecological conservation are preferred [9]. Sustainable practices are critical for preserving the region's natural beauty while economically benefiting local communities [10].

Local community involvement is essential for sustainable tourism. Effective planning must consider the needs of local populations to ensure equitable benefits from tourism activities [11]. Studies show that engaging local communities in decision-making enhances tourism outcomes and visitor experiences [12]. In South Malang, empowering communities through training and participation in tourism ventures can drive both economic growth and cultural preservation [13]. Despite these challenges, South Malang's pristine beaches and diverse ecosystems offer strong tourism potential for both domestic and international markets [8].

A SWOT analysis of South Malang's tourism sector reveals key strengths, weaknesses, opportunities, and threats, guiding the development of a sustainable tourism framework [14]. This framework should emphasize environmental sustainability, ecotourism, and local community involvement to promote responsible tourism that benefits both the region and its people [15]. By addressing infrastructure gaps, implementing sustainable practices, and engaging communities, South Malang can become a competitive marine tourism destination. This study seeks to contribute to sustainable tourism development by identifying critical infrastructure improvements, assessing environmental impacts, and fostering community engagement.

II. METHODS

[1] Materials

This study used various tools to ensure thorough data collection and analysis. Digital cameras captured high-resolution images of the physical environment at each beach. Standardized checklists, developed based on selected criteria, ensured consistent data collection across locations. Field notebooks documented additional observations, such as environmental sustainability, aesthetic appeal, and the presence of natural or cultural attractions. Structured interviews and pre-prepared questionnaires, following the "Analysis of Natural Tourism Object and Attraction Areas"

guidelines, gathered qualitative data from local stakeholders.

2. Study Area

The research was conducted along the southern coast of Malang, East Java, Indonesia, covering six districts: Ampelgading, Bantur, Donomulyo, Gedangan, Sumbermanjing, and Tirtoyudo. These areas were chosen for their high potential for marine tourism development, featuring pristine beaches and diverse marine ecosystems.

3. Criteria Selection

Fifteen criteria were identified for evaluating tourism development feasibility, including Tourist Attraction, Market Potential, Accessibility, Surrounding Area Condition, Facilities and Infrastructure, and Environmental Sustainability. These criteria provided a comprehensive assessment of each site's suitability for tourism development, based on prior research and expert input.

4. Data Collection

- **Visual Observations:** Direct observations at each beach assessed physical conditions, environmental quality, infrastructure, and available tourist facilities. Standardized checklists ensured data consistency, while digital cameras captured environmental conditions. Field notes included observations on sustainability, aesthetic value, and natural or cultural attractions.
- **Interviews and Questionnaires:** Structured interviews were conducted with local stakeholders, such as beach managers, tourism operators, government officials, and community leaders. The pre-prepared questionnaire addressed tourism management, infrastructure, environmental concerns, and community involvement. Interviews were recorded with participants' consent and transcribed for analysis.
- **Scoring and Weighting System:** Each criterion was scored on a scale of 1 (poor feasibility) to 5 (excellent feasibility) based on observations and interviews. Weighting was applied to prioritize key criteria like Accessibility, Tourist Attraction, and Facilities and Infrastructure. The total score reflected each beach's overall feasibility.
- **Feasibility Index Calculation:** The feasibility index for each beach was calculated by dividing the total weighted score by the maximum possible score, yielding a percentage that

represented the site's suitability for tourism development.

- **Ranking and Prioritization:** Beaches were ranked based on their feasibility index. Higher-ranked beaches were prioritized for immediate tourism development, while lower-ranked ones were identified for further improvement.

5. Data Validation

Local communities, government agencies, and tourism operators provided feedback, which was integrated into the final analysis. Adjustments were made to the scoring system based on local expertise and insights.

6. Data Analysis and Mapping

Statistical software processed the results of questionnaires and interviews, while Geographic Information System (GIS) tools mapped accessibility, infrastructure, and tourism potential across the study area. GIS analysis illustrated the proximity of beaches to transport routes, population centers, and other attractions, aiding in tourism feasibility assessments.

7. SWOT Analysis

A SWOT analysis evaluated external and internal factors affecting marine tourism development in the region. Semi-structured interviews provided qualitative data, helping to identify strategic opportunities, such as the rise of ecotourism, and threats like environmental degradation and regional competition.

III. RESULTS AND DISCUSSIONS

The economy of East Java is dominated by the northern region, contributing 52.2% of the total, while the southern region accounts for only 16.84%. This economic disparity is reflected in the number

of tourist visits, with the northern coastal areas receiving approximately 13,374,334 visitors compared to just 7,250,738 visitors in the southern region. One of the key factors contributing to this significant gap is the stark difference in infrastructure between the two regions. The northern area is supported by well-developed toll roads and major highways along the coast, facilitating a high volume of transport. In contrast, the southern region is predominantly mountainous and forested, with limited and challenging road access.

In response to these imbalances, the provincial government has prioritized infrastructure development in the southern region over the past decade, with a major initiative being the construction of the South Cross Road as shown in map on Figure 1. The goal is to accelerate economic growth in the southern coastal areas by providing better road access. One of the key areas identified for development is the potential of marine tourism. This study aims to support the development of marine tourism by identifying 114 beach spots in South Malang and evaluating their suitability for prioritizing marine tourism development from the available options. The development of tourism as a key sector in Malang Regency has the potential to significantly boost regional income and improve the welfare of local communities, particularly through the sustainable management of marine tourism. Beaches with sustainable tourism concepts, such as Bajul Mati Beach, Bolu-bolu Beach, Wediawu Beach, and Gatra Beach, as well as ecotourism destinations like Sempu Island, Tiga Warna Beach, Savanna Beach, and Mini Beach, exemplify the region's rich tourism assets. However, the current management of tourism is still in its early stages and predominantly focused on mass tourism development.

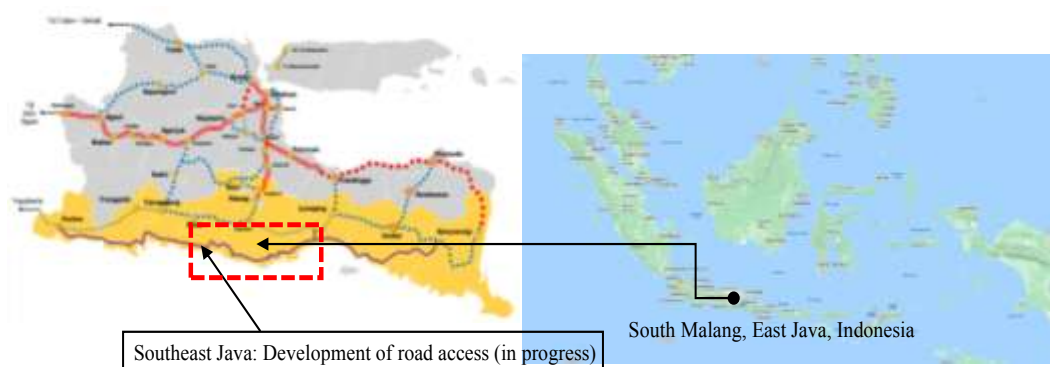


Figure 1. Research location: South Coast of Malang, East Java Indonesia



Figure 2. Scenic view of the beaches along southern Malang

The well-known beaches in Malang remain in excellent condition, though most are still underdeveloped. The beauty of South Malang's beaches is illustrated in Figure 2. This study was conducted in South Malang, covering five districts along the southern coast of Malang that have beaches, namely: Ampelgading, Bantur, Donomulyo, Gedangan, Sumbermanjing, and Tirtoyudo. Based on identification, out of 114 beaches, 50 were selected for evaluation through surveys and interviews involving 20 enumerators. Of these, 9 are no longer active tourist destinations, leaving 41 beaches as the subjects of the study.

Table 1 presents the assessment criteria, including all elements with their respective weightings, using Lenggoksono Beach as an example location. With a maximum possible score of 4410, the feasibility score for Lenggoksono Beach is calculated at 72.95%, as shown in Table 2. In this study, the minimum score for a beach to be considered feasible for tourism development is set at 65%. Practically, however, development will require careful consideration of the funding capabilities of all stakeholders involved, as well as strategic planning for the future growth of tourism in the area

Table 1. Total Score assessment for Lenggoksono Beach

Criteria	Elements	Value	Weight	Score
Beach Appeal	Beauty	30	6	180
	Safety/Security	25	6	150
	Type and Color of Beach	25	6	150
	Activity Variety	25	6	150
	Cleanliness/Comfort	10	6	60
	Beach Width	15	6	90
Market Potential	Population Density	30	5	150
	Tourism Demand Level	30	5	150
Accessibility	Road Condition and Distance from Provincial Capital	10	5	50
	Proximity to Air Transport (International/Domestic)	20	5	100
	Travel Time from Provincial Capital	15	5	75
Surrounding Area Condition	Land Use Plan	15	5	75
	Unemployment Rate	10	5	50
	Primary Occupations of Local Population	20	5	100
	Available Space	10	5	50
	Education Level	25	5	125
Management and Services	Management	30	4	120
	Language Proficiency	25	4	100
	Visitor Services	30	4	120
Climate Conditions	Climate Impact on Visitor Duration	20	4	80
	Average Number of Dry Months per Year	25	4	100
Accommodation	Number of Rooms	20	3	60
Facilities and	Facilities	25	3	75

Criteria	Elements	Value	Weight	Score
Infrastructure	Infrastructure	30	3	90
Clean Water	Water Volume	20	6	120
Availability	Distance from Water Source to Site	25	6	150
Relation to	Similar Tourist Sites	30	1	30
Other	Different Tourist Sites	10	1	10
Attractions				
Visitor Capacity	Maximum Visitors (people/day/hectare)	30	3	90
Marketing	Marketing Mix	25	4	100
Market Share	Origin of Visitors (majority)	20	3	60
	Education Level (majority)	25	3	75
Security	Visitor Security	30	5	150
Total Score				3235

Table 2. Score assessment of the feasibility of developing South Malang beachh tourism

No	District	Beach	Score	Feasibility
1	Ampelgading	Licin	63.25	Not feasible
2	Bantur	Kondangmerak	71.07	Feasible
3	Bantur	Pura luhur	69.45	Feasible
4	Bantur	Jembatanpanjang	69.14	Feasible
5	Bantur	Balekambang	69.14	Feasible
6	Bantur	Selok	69.14	Feasible
7	Bantur	Banyu meneng 16	68.98	Feasible
8	Donomulyo	Pasirpanjang 17	79.6	Feasible
9	Donomulyo	Modangan	73.31	Feasible
10	Donomulyo	Jembatangunungkombang	71.64	Feasible
11	Donomulyo	Goa pathukilang	70.67	Feasible
12	Donomulyo	Ngliyep	70.52	Feasible
13	Donomulyo	Gunungkombang	68.28	Feasible
14	Donomulyo	Bantol	67.72	Feasible
15	Gedangan	Watulepek	96.02	Feasible
16	Gedangan	Kangen	70.29	Feasible
17	Gedangan	Jelangkung	70.29	Feasible
18	Gedangan	Parang dowo	70.29	Feasible
19	Gedangan	Ngudel	69.81	Feasible
20	Gedangan	Kuncaran	69.81	Feasible
21	Gedangan	Ngantep	69.5	Feasible
22	Gedangan	Taman ayu	69.5	Feasible
23	Gedangan	Bajulmati	69.32	Feasible
24	Gedangan	Ungapan	69.18	Feasible
25	Gedangan	Batu bengkung	69.02	Feasible
26	Gedangan	Wedi klopo	69.02	Feasible
27	Gedangan	Wonogoro 13	68.7	Feasible
28	Sumbermanjing	Telukasmara	76.01	Feasible
29	Sumbermanjing	Tamban	73.32	Feasible
30	Sumbermanjing	Watuleter	70.68	Feasible
31	Sumbermanjing	Perawan	70.5	Feasible
32	Sumbermanjing	Sendiki	70.07	Feasible
33	Sumbermanjing	Gua cina	68.62	Feasible
34	Sumbermanjing	Gatra (cmc)	68.21	Feasible
35	Sumbermanjing	Sendangbiru	67.23	Feasible
36	Sumbermanjing	Clungup	63.38	Not feasible
37	Tirtoyodo	Lenggoksono	72.95	Feasible

No	District	Beach	Score	Feasibility
38	Tirtoyodo	Banyu anjlok	70.11	Feasible
39	Tirtoyodo	Bolu bolu	67.64	Feasible
40	Tirtoyodo	Wedi awu	66.85	Feasible
41	Tirtoyodo	Sipelot	60.99	Not feasible

In assessing the feasibility of developing a beach tourism destination in South Malang, a comprehensive evaluation of key criteria is essential. This assessment involves 15 critical aspects, including the appeal of tourist attractions, which focus on the natural beauty and uniqueness of the location, as well as market potential, which gauges the expected number of visitors. The attractiveness of a tourist destination, particularly beaches, plays a significant role in visitor decision-making, with sandy beaches being especially favored for their comfort and visual appeal (Mugini et al., 2022). Furthermore, the sustainable management of natural resources, as highlighted by Kartika (2023), is pivotal in maintaining the long-term attractiveness of the destination.

Accessibility is another crucial factor in tourism development. Studies demonstrate that improvements in transport infrastructure lead to enhanced ease of access, subsequently boosting tourist arrivals and revenue (Li et al., 2015). Accessibility not only affects visitor numbers but also shapes the overall visitor experience, underscoring the importance of efficient and well-planned transportation systems in promoting tourism (Jarratt & Davies, 2019). Additionally, environmental cleanliness and safety are key considerations, as these factors directly impact tourist satisfaction and the likelihood of repeat visits (Mukhtar et al., 2017). Research further suggests that the local population's perception of tourism's environmental impact can influence the sustainability of tourism in the area (Andereck & Nyaupane, 2010).

Effective management and service quality are indispensable in ensuring visitor satisfaction. Well-managed services can enhance the tourist experience, while a lack of professional marketing and promotion can inhibit tourism growth (Karima et al., 2022; Cerić, 2016). While climatic conditions may not always be a primary consideration, they are still critical, as climate change poses significant risks to coastal tourism, affecting both the physical environment and visitor comfort (Jarratt & Davies, 2019). Supporting infrastructure and facilities, such as accommodations, toilets, parking, and access to clean water, are vital for the development of a tourism destination. Additionally, the connectivity of nearby tourist sites adds to a region's overall

appeal. Ensuring visitor safety through proper security measures and managing the area's environmental and social carrying capacity are fundamental for sustainable tourism. Lastly, strategic marketing is essential for attracting visitors and increasing market share. Understanding tourist preferences and creating targeted marketing plans can significantly enhance a destination's market reach (Suharyanto, 2024; Gutiérrez et al., 2019).

Beaches like Watu Lepek and Pasir Panjang received high scores due to their strong natural appeal, unique attractions, and superior environmental management. These factors make them highly attractive to visitors and indicate substantial development potential. Their relatively higher scores also reflect better facilities, accessibility, and overall management compared to other beaches in the region. The combination of well-preserved natural surroundings and effective visitor management contributes to a positive tourist experience. Conversely, beaches such as Licin and Sipelot, which received lower scores, face significant challenges that hinder their development potential. Poor accessibility, such as rough terrain and inadequate road infrastructure, makes it difficult for tourists to reach these locations. Additionally, the lack of essential services and facilities, such as accommodations and amenities, further limits their attractiveness to tourists. Their lower market potential suggests that these beaches have not yet gained sufficient visibility or demand, further restricting their growth prospects.

Environmental conditions also play a significant role in the overall assessment. While some beaches are characterized by well-preserved natural surroundings, others may suffer from environmental degradation or pollution, negatively impacting their appeal and suitability for development. Beaches with strong environmental management tend to score higher, offering a cleaner and safer experience for visitors. Moreover, marketing and visitor management are critical, as beaches with effective marketing strategies and proper visitor regulations are more likely to attract tourists and sustain long-term tourism. In summary, the variations in scores across the beaches reflect a combination of natural attractions, accessibility, infrastructure, environmental conditions, and management practices. Beaches like Watu Lepek

and Pasir Panjang are well-positioned for development due to their strengths in these areas, while others like Licin and Sipelot will require significant improvements in infrastructure, market outreach, and environmental management to realize their full potential. This analysis aligns with Duby et al. (2022), who stress the importance of sustainable management for natural tourism objects (NTOA). Effective development requires a holistic approach that considers natural beauty, accessibility, infrastructure, and socio-cultural factors. For Malang Regency, where many beaches such as Sendigi Beach and Teluk Asmara are still in the early stages of development, improving accessibility and transportation is critical to unlocking their tourism potential (Suliyanto, 2020; Lee et al., 2010). Additionally, tourism development in Malang Regency must be aligned with the local community's characteristics and heritage. Socio-cultural alignment ensures that tourism not only attracts visitors but also benefits local residents (Sainu, 2023). Engaging the community in the development process can enhance the appeal and sustainability of these destinations (Hapsari et al., 2020).

The competitive nature of the tourism industry requires a strategic approach. According to Suliyanto (2021), the region must differentiate its offerings to stand out among competing destinations. Malang's abundant beaches and ecotourism potential, often referred to as "Malang Seribu Pantai" (a thousand beaches), provide a unique selling point that can be leveraged through proper development and sustainable management practices. The potential for ecotourism development is further supported by Yuniarti et al., (2018), who emphasize the need for thorough analysis of natural attractions. Ecotourism, if well-executed, can

provide a sustainable income source while preserving the natural environment in regions like Malang.

As part of the ongoing discussion surrounding the development of tourism in South Malang, a mapping of tourist locations was conducted to provide a visual representation of the beach tourism spots in relation to the main highway and surrounding areas. The findings reveal that all tourist sites are located at a considerable distance from densely populated settlements, with the surrounding landscape predominantly consisting of forests. The distance from the highway to each tourist location is approximately 70 kilometers, translating to a travel time of about two hours by car. This highlights the relative remoteness of these beach destinations, which may influence access and visitor planning. One of the primary challenges facing the development of marine tourism in South Malang is the inadequacy of existing infrastructure and accessibility. Studies have shown that poor infrastructure can severely limit tourism growth, as it affects the ability of tourists to access attractions and services (Zamzami et al., 2023). For instance, inadequate transportation options and facilities can deter potential visitors, thereby stunting economic growth in the region (Hengky, 2023). Furthermore, the lack of proper planning and investment in tourism infrastructure can lead to missed opportunities for local economies to benefit from tourism (Mola et al., 2012). In regions like South Malang, the development of sustainable tourism requires significant improvements in transportation, lodging, and other basic facilities to meet the expectations of both domestic and international tourists (Karima et al., 2022). The distribution of South Malang Beachs per sub-district are shown in Figure 3 to Figure 7.



Figure 3. Distribution of Tourist Destination Beaches in Districts of Ampel Gading and Tirtoyudo Malang

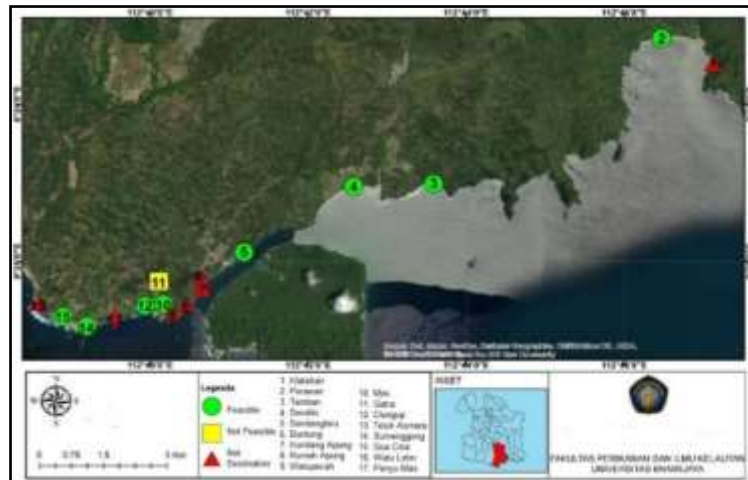


Figure 4. Distribution of Tourist Destination Beaches in Districts of Sumbermanjing, Malang

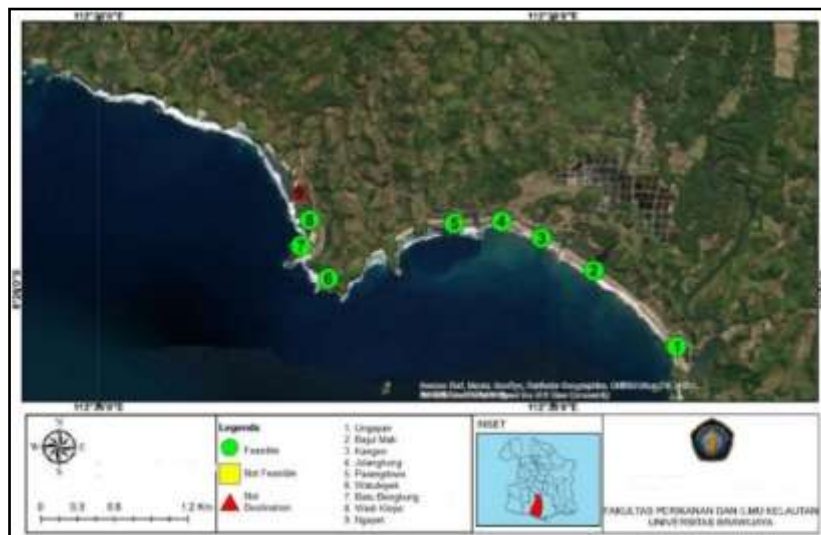


Figure 5. Distribution of Tourist Destination Beaches in Districts of Gedangan, Malang

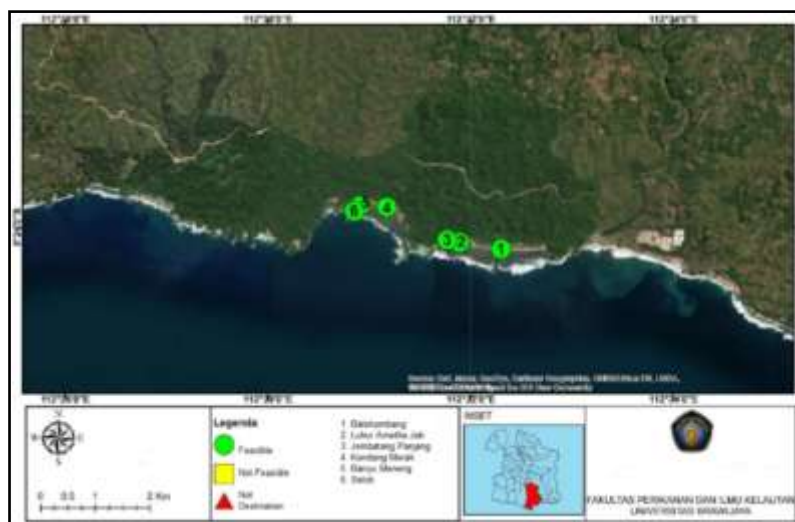


Figure 6. Distribution of Tourist Destination Beaches in Districts of Bantur, Malang

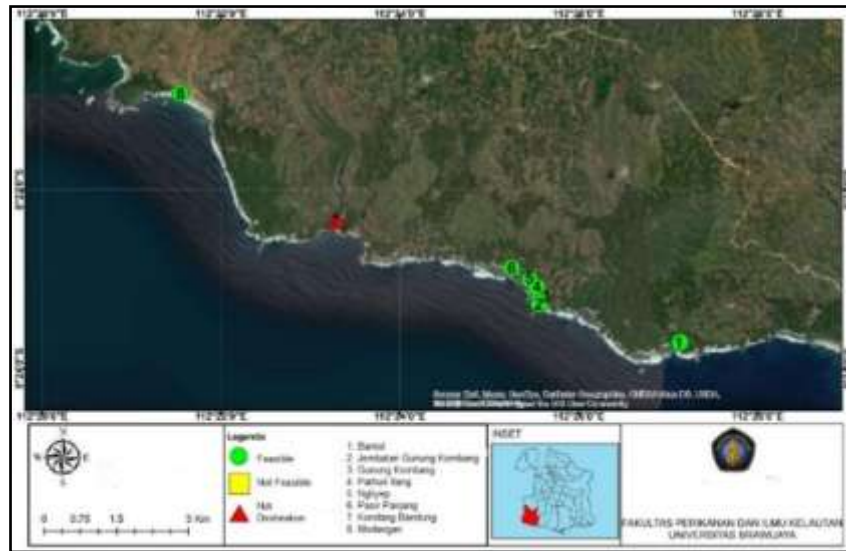


Figure 7. Distribution of Tourist Destination Beaches in Districts of Donomulyo, Malang, East Java

The SWOT analysis and validation of the survey results were conducted through a group discussion involving key stakeholders, including representatives from the government, the private sector, academic institutions, entrepreneurs, and the coastal communities of South East Java. These discussions provided a comprehensive view, incorporating diverse perspectives on marine tourism and capture fisheries. The results of the SWOT analysis were shaped by these stakeholder engagements, ensuring that the insights reflect the collective experiences and knowledge of those directly involved in the development and management of these sectors as shown in Table 3.

The SWOT analysis of sustainable marine tourism development in South Malang identifies key strengths, weaknesses, opportunities, and threats, providing insights into the region's potential. The SWOT analysis "strengths" for sustainable marine tourism development in South Malang highlights its strengths in natural resources and cultural heritage. The area's pristine natural resources and rich cultural heritage are significant assets. South Malang's

beaches and diverse marine ecosystems attract eco-conscious tourists, but these natural attractions are vulnerable to environmental degradation, reinforcing the need for sustainable tourism practices (Ghorbani et al., 2015). The region's cultural traditions offer unique experiences but face the risk of commodification, which could diminish their authenticity and reduce visitor satisfaction (Son, 2023). Managing these cultural assets carefully is critical to preserving their integrity. Additionally, while global interest in ecotourism aligns with

South Malang's offerings, competition from other destinations highlights the importance of market differentiation strategies (Yu, 2023). Despite the valuable insights provided by SWOT analysis, it has limitations in capturing the interrelationships between factors and assessing their quantitative impact (Liu & Suk, 2021). Thus, South Malang's tourism strategy must focus on sustainable practices, cultural authenticity, and unique market positioning for long-term success.

Table 3. SWOT analysis results

SWOT Category	Details
Strengths	- Rich Natural Resources: Pristine beaches, clear waters, and diverse marine ecosystems. - Cultural Heritage: Unique local traditions and practices enhance tourism appeal. - Increasing Interest in Ecotourism: Aligns with eco-conscious travelers' preferences.
Weaknesses	Inadequate Infrastructure: Poor road access, limited public facilities, and insufficient transportation.

	• Limited Accommodation Options: Lack of eco-friendly, high-standard resorts and accommodations. • Low Awareness of Environmental Issues: Limited knowledge of sustainable practices among locals and operators.
Opportunities	• Growing Global Demand for Sustainable Tourism: Increasing preference for eco-friendly travel. • Potential for Community-Based Tourism: Engaging local communities for economic growth and preservation of cultural resources. • Government Support: Opportunities for investment and marketing due to government interest in tourism development.
Threats	• Environmental Degradation: Risk of habitat destruction and pollution due to unmanaged tourism. • Competition from Other Destinations: Nearby regions with better infrastructure could divert tourists. • Climate Change: Rising sea levels and extreme weather threaten coastal tourism areas.

Critical weaknesses hinder South Malang's tourism development potential. Inadequate infrastructure, such as poor road access and limited transportation options, poses a significant barrier for tourists. Similar issues have been observed in regions like South Aceh, where infrastructure improvements, driven by proactive governance, have enhanced tourism potential (Zamzami et al., 2023). This suggests that, while infrastructure challenges exist, they can be addressed through targeted investments. Another limitation is the scarcity of eco-friendly accommodations that meet international standards. However, innovative tourism products, such as marine-based gastronomy ecotourism, show that unique experiences can still be developed despite these limitations (Astari et al., 2023). South Malang can focus on creating such distinctive offerings to attract a broad range of tourists rather than relying solely on upscale accommodations. A major concern is the low awareness of environmental issues among local communities and tourism operators, which may lead to unsustainable practices and environmental degradation. However, this can be transformed into an opportunity through education and community engagement. Studies indicate that community involvement is crucial for promoting sustainable tourism (Insani et al., 2020). South Malang could adopt similar initiatives, as seen in South Sulawesi, where community participation has been essential in addressing environmental concerns (Tuwo et al., 2021).

Several promising opportunities exist for South Malang, particularly through sustainable and community-based tourism initiatives. The increasing global demand for sustainable tourism positions South Malang as a potential eco-friendly destination. However, with established competitors

like the Amazon already dominating this space, South Malang must differentiate itself by emphasizing its unique natural beauty and commitment to sustainability (Jayawardena & Sinclair, 2010). Community-based tourism offers another opportunity for local involvement and economic benefits. However, careful management is needed to avoid risks such as cultural displacement and marginalization, which can arise if tourism development is not inclusive (Zhang et al., 2020). Ensuring that tourism benefits local communities without compromising cultural integrity is essential.

Government support for tourism development also presents a significant opportunity, particularly in infrastructure and marketing investments. However, the effectiveness of such support depends on how well it is leveraged. In some regions, limited capacity and resources have hindered tourism growth, suggesting that strategic planning is necessary to fully utilize government backing (Merwe, 2014). In conclusion, while opportunities for sustainable and community-based tourism in South Malang are promising, they must be accompanied by careful planning, differentiation, and efficient use of government resources.

Key threats to South Malang's sustainable tourism development include environmental degradation, competition from neighboring regions, and climate change. However, these threats can be mitigated with proactive strategies. Although increased tourism may lead to environmental damage, properly managed tourism can also support conservation efforts by funding environmental protection and restoration (Kyara et al., 2022). Competition from regions with better infrastructure is another significant threat, but it also presents an opportunity for South Malang to innovate and improve its services, infrastructure, and marketing.

Competition often drives improvement and the enhancement of tourism offerings (Yaja et al., 2022). Climate change poses long-term risks, but sustainable tourism practices can contribute to climate adaptation. Investments in renewable energy, eco-friendly infrastructure, and climate-resilient tourism initiatives can reduce vulnerability to climate impacts (Hess & Kelman, 2017; Thanh & Thanh, 2023). In conclusion, while South Malang faces threats from environmental degradation, competition, and climate change, these challenges can be addressed through innovation, conservation efforts, and sustainable practices, positioning the region as a leading eco-friendly destination.

IV. CONCLUSION

In conclusion, this research highlights both the opportunities and challenges for sustainable marine tourism development in South Malang. The region's pristine beaches, rich marine ecosystems, and cultural heritage offer strong potential for ecotourism, aligning with global trends toward sustainable travel. However, the study identifies key challenges such as inadequate infrastructure, poor accessibility, and limited eco-friendly accommodations, which hinder tourism growth. Opportunities exist in leveraging community-based tourism and government support to develop the region, but threats such as environmental degradation and competition from better-developed regions must be addressed. Meeting these challenges is essential to achieving the research's goal of promoting sustainable tourism that balances environmental conservation with local economic growth.

ACKNOWLEDGEMENT

This research was supported by the Faculty of Fisheries and Marine Sciences, Universitas Brawijaya through the Commodity Grant Funds for 2023-2024. We extend our sincere gratitude to the faculty for their financial assistance, which was instrumental in facilitating this study. We also thank the local stakeholders, including tourism operators, community leaders, and government officials, whose valuable insights and cooperation contributed significantly to the success of this research.

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