

Sustainable Geopark Tourism Destination Development Strategy

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ABSTRACT

This study aims to evaluate strategies for developing a sustainable geopark-based tourism destination in Air Batu Village, Merangin Regency, Jambi Province. The village is part of the Merangin Geopark area, which is known for its significant geological wealth, such as the presence of ancient plant fossils and unique natural landscapes. However, the development process of this tourism area still faces several obstacles, including limited infrastructure, low levels of community engagement, and suboptimal coordination between the village government and the *Pokdarwis* (*Kelompok Sadar Wisata* or Tourism Awareness Group). This research adopts a qualitative approach, utilizing data collection techniques such as direct observation, in-depth interviews, and documentation. Data analysis is conducted using the SWOT method to explore the strengths, weaknesses, opportunities, and threats related to sustainable geopark tourism development. The findings indicate that development efforts can be improved through cross-sector collaboration involving the government, local communities, and the private sector. The main focus should be directed toward enhancing supporting infrastructure, promoting the destination effectively, and strengthening the local economy based on its existing potential. This study is expected to provide constructive input for the formulation of strategic policies in the sustainable management of the Merangin Geopark and to serve as an important reference for future related research.

Keywords: Development strategy, Merangin Geopark, sustainable tourism, SWOT analysis, Air Batu Village

Introduction

The national economy is currently starting to focus on the development of the tourism sector in each region (Ana, 2018; Calero & Turner, 2020; Hidayat et al., 2025). This is because the government is beginning to realize that tourism is one of the important sectors in economic development at both regional and national levels (Smith & Reynolds, 2019). In improving the regional and national economy, the tourism sector plays many important roles (Zhang et al., 2020). In addition to increasing regional and state income, the tourism sector also has a role in creating jobs for the surrounding

communities (Liu & Zhou, 2021). The tourism sector can also encourage the growth of other sectors such as the Micro, Small, and Medium Enterprises (MSMEs), regional souvenirs, and the service sector in the area (Kaur & Singh, 2020). Furthermore, the tourism sector plays a role in preserving the culture and environment of the region, which also has a national impact as an effort to improve the nation's image at the international level (Baker et al., 2022; Lee & Kim, 2021). Tourism development can thus serve as a driver of economic diversification and cultural sustainability (Chavez & Hernandez, 2023).

In recent years, the Indonesian government has shown its commitment to developing the tourism sector in collaboration with the surrounding community as well as local governments. This is evidenced by various policies that have been issued, such as infrastructure development (Purnama & Pratama, 2020). Infrastructure development carried out by the government in the tourism sector includes road construction as an effort to facilitate transportation for tourists, which will eventually attract more visitors (Suharto et al., 2021). Moreover, the government also focuses on providing public amenities, such as places of worship, rest areas, toilets, and parking lots, to improve the experience of tourists (Kurniawan et al., 2022). These infrastructural improvements are essential for the growth of tourism as they enhance accessibility and comfort for visitors (Nurhadi et al., 2020). Additionally, improving infrastructure in the tourism sector is seen as a key factor in boosting the competitiveness of regional destinations (Setiawan & Anggraeni, 2021). The collaboration between the government and local communities is integral in ensuring sustainable tourism development (Prasetyo et al., 2021). Overall, these efforts contribute significantly to the promotion of tourism in Indonesia as a key economic driver (Zulfa et al., 2023).

Human resource development is one of the main focuses of the Indonesian government in encouraging national economic growth through the tourism sector. One of the main keys to achieving this goal is improving the quality of human resources (HR) in tourism. Some of the human resource development efforts carried out by the government include education and training. Organizing vocational education and training in the field of tourism aims to improve the skills and knowledge of the workforce. Human resource development in the tourism sector is an important long-term investment to increase the competitiveness of Indonesian tourism. By having quality human resources, Indonesia's tourism sector is expected to make a greater contribution to the national economy and improve people's welfare.

Based on the Global Geopark Network (GGN) and the European Geopark Network (EGN), a *Geopark* is defined as an area with well-defined boundaries consisting of large territories that allow for sustainable local development in social, economic, cultural, and environmental aspects. Additionally, a *geopark* is an area that can be considered a national-scale protected region containing several important geological heritage sites with particular attractiveness and rarity that can be developed through the integration of conservation, education, and local economic development.

The Merangin Geopark, located in Jambi Province, is a tourism destination offering a variety of stunning attractions. Quoted from the *meranginkab.go.id* geopark website, the name Merangin Jambi Geopark is derived from the administrative region names, namely Merangin Regency and Jambi Province. In the Merangin Jambi Geopark area, you will find rock formations dating back more than 200 million years, especially those related to the discovery of *Jambi* flora fossils since 1926. In addition, there is also a karst expanse with varied landscapes, including both exokarst and endokarst features that bear traces of ancient relics. The Mount Masurai complex, with its volcanic and tectonic phenomena, has resulted in several landscapes such as lakes, waterfalls, rugged columns, and geothermal manifestations that continue to this day.

The tourism sector can be one of the main economic drivers for the people of Air Batu Village, leveraging their tourism potential. However, unfortunately, this potential has not been fully explored or properly developed to improve their economy. This is due to an ambiguous and unclear management system of the tourist destination between the Air Batu Village Government and the Tourism Awareness Group (*Pokdarwis*) from the Merangin Regency Tourism Office. According to development analyses conducted by the Merangin Regency Government on the Merangin Geopark in the Air Batu Village area, obstacles still exist, such as a lack of support from the local community.

SWOT analysis is a strategic planning method used to evaluate the *Strengths*, *Weaknesses*, *Opportunities*, and *Threats* related to a particular project or business initiative. These four elements form the acronym *SWOT* (*strengths, weaknesses, opportunities, threats*). This analytical technique was created by a research project leader at Stanford University named Albert Humphrey.

The purpose of a *SWOT* analysis is to identify important aspects of strengths, weaknesses, opportunities, and threats within an institution or organization. From these four aspects, it is expected to help maximize strengths, minimize weaknesses, reduce threats, and build opportunities in this research.

Previous research by Yuliawati & Hadian (2014) explored the geodiversity of Merangin Jambi Geopark—examining fossils, karst landscapes, and volcanic features—and acknowledged obstacles such as infrastructure deficits and ambiguous management, yet stopped short of proposing strategic interventions or stakeholder-based frameworks through tools like *SWOT* analysis. Meanwhile, Wibowo (2021) applied ECO-Geotourism and the PBRW method to Merangin Geopark and employed a *SWOT* analysis to assess its strengths, weaknesses, opportunities, and threats, but it lacked an actionable focus on clarifying governance roles or community engagement in Air Batu Village.

This research aims to map the challenges and potentials of tourism development in Air Batu via *SWOT* analysis and provide practical guidance for stakeholders to collaboratively enhance regional economic growth, *MSME* development, and cultural-environmental preservation within the Merangin Geopark framework.

Research Methods

This research uses a qualitative approach. It was conducted in Merangin Geopark, *Air Batu Village*, Merangin Regency, Jambi Province, from May 2024 to June 2025. The data collection techniques include both primary and secondary data. Primary data were obtained through observation, direct interviews, and document collection, while secondary data were gathered from documents at the Merangin Regency Tourism Office and other related agencies.

The data analysis employed in this study is descriptive, aiming to describe the situation of the research object and explain the results of the informants' answers. Furthermore, analysis was conducted by linking the observations in the field and respondents' answers with relevant theories and previous research. The researcher also utilized *SWOT* analysis to examine the *Strengths, Weaknesses, Opportunities, and Threats* in the development of potential tourism objects within the Merangin Geopark of *Air Batu Village*.

Results and Discussion

Analysis of the Potential Development of the Merangin Geopark in Sustainable Air Batu Village

Regarding the positive and negative impacts of the development of the Merangin Jambi Geopark for the people of Merangin, it can be seen in the following SWOT (Strength, Weaknesses, Opportunity, Threats) analysis:

SWOT Indicator

The SWOT Analysis Indicator can be seen in the following table:

Table 1. SWOT Indicator

No.	Indicators SWOT	Questions About Indicators
1	Strength (Strength)	<ul style="list-style-type: none"> - The open attitude of the community's hospitality towards outsiders who come to their area. - Has natural beauty that is still natural - Used as a tourist attraction - Beautiful panorama around the tourist area of Air Batu Village
2	Debilitation (Weaknesses)	<ul style="list-style-type: none"> - There is still a lack of existing infrastructure, due to the lack of stakeholder involvement. - Merangin Geopark (Air Batu Village Tourism) is not well known to people outside the area. - There has not been an institutional formation of tourism awareness groups. - The government's lack of commitment to the management of tourist attractions. - The road to the location of the tourist attraction is still damaged.
3	Chance (Opportunity)	<ul style="list-style-type: none"> - There is a persistent and enthusiastic will of the community for the management of Air Batu Village tourism. - Can absorb the labor of the community in tourism management, thereby reducing the - unemployment. - Visitors are used as tourist actors.

No.	Indicators SWOT	Questions About Indicators
		<ul style="list-style-type: none"> - It can increase PAD (local original income) in terms of ecotourism. - It was used as an outbound game location.
4	Threat (Threats)	<ul style="list-style-type: none"> - Lack of public insight into tourism. - There has been no cooperation between stakeholders in management. - Lack of concern from the public and visitors for a clean environment. - Lack of tour guides. - The occurrence of regulation/levy problems entering the location. - Lack of professionals in management - Sights.

Implementation of Turn Around Strategy in the Context of Destination Development

The grouping of IFAS and EFAS results is a fundamental reference in designing a comprehensive and sustainable tourism development strategy to achieve the goals of this research. The Turn Around strategy recommended for Quadrant II requires a systematic and integrated approach, where any external opportunities identified must be optimally utilized to address specific internal weaknesses. This approach focuses not only on improving internal conditions, but also on fundamental transformation that turns weaknesses into strengths through the use of positive momentum from the external environment. Thus, the strategy developed will be adaptive and responsive to the dynamics of changes both internal and external that affect the development of tourist destinations.

Table 2. Strategy Recommended For Quadrant II

Quadrant	Condition	General Strategy
II (WO)	Disadvantages + Opportunities	<ol style="list-style-type: none"> 1. Improving the quality of human resources and cooperation with local communities to meet the needs of tourism facilities 2. Government support in arranging geopark areas to make them more suitable for visiting. 3. Optimize natural beauty such as waterfalls, rivers and rafting to absorb the local workforce and attract more tourists.

The implementation of the WO strategy in the Merangin Jambi Geopark requires a holistic approach with a main focus on increasing internal capacity through optimal utilization of available external opportunities. Training programs and support from local governments, which are key external opportunities, must be utilized to the fullest to address fundamental weaknesses in terms of human resources and unstructured promotion systems. This capacity building strategy does not only focus on technical training, but also on developing the mindset and managerial skills of the local community in order to manage tourism activities professionally and sustainably. By

harnessing the momentum of government support, destinations can create a strong foundation for long-term transformation.

Optimizing the potential of unique natural beauty is the key to facing the challenge of quadrant position and weakness while maintaining the competitiveness of the destination. The natural charm in the form of waterfalls, rafting activities, and the existence of ancient fossils which are the main strength of the destination must be integrated with the trend of the natural and adventure tourism market which is experiencing a significant increase. The use of this trend requires a targeted communication and promotion strategy, where the uniqueness of Merangin Geopark natural tourism products can be effectively communicated to the right market segments. Through this approach, weaknesses in promotion can be overcome by harnessing the strength of natural products and positive market trend momentum, thereby creating synergies that are beneficial for destination development.

The transformation of the social capital of local communities is a crucial aspect of a sustainable empowerment strategy and has a direct impact on the quality of the tourist experience. The open attitude and friendliness of the community that have become an internal force must be converted into technical and professional capabilities through systematic and continuous training programs. This conversion process involves developing skills in hospitality, homestay management, tour guides, and the development of local culinary products that can increase economic added value for the community. Thus, weaknesses in human resource capacity can be gradually transformed into strengths that support the quality of tourism services, while creating wider economic opportunities for local communities and increasing tourist satisfaction levels.

The use of government institutional support in the arrangement of geopark areas is a vital strategy to overcome infrastructure weaknesses that are the main obstacles in destination development. Systematic and continuous advocacy to local governments for improved road access, improvement of communication signal quality, and development of other supporting facilities should be top priorities in the implementation of the strategy. This effort requires a structured approach by preparing comprehensive proposals, accurate supporting data, and realistic development plans to convince the government of the economic and social potential of the development of the Merangin Jambi Geopark. Through synergistic cooperation with the government, infrastructure weaknesses can be overcome gradually, while creating an environment conducive to the growth and sustainability of tourism activities in this destination.

The implementation of human resource development strategies requires a systematic and sustainable approach by utilizing various training programs available from local governments. This training program should be comprehensively designed to improve the ability of local communities in various aspects of tourism services, from basic hospitality skills to more specific technical skills such as tour guidance and tourism business management. The development of local tour guide training programs is a special priority because they will be the main interface between tourists and the uniqueness of the geopark, so their ability to communicate educational and conservation

values is very crucial. In addition, capacity building in homestay management and local culinary development will create a diversification of tourism products that can increase the length of stay of tourists and provide greater economic benefits to local communities.

The strategy for utilizing tourism market trends must be integrated with optimizing the potential of social media as an effective and efficient promotional tool. Visitors who are active on social media can be used as organic promotion agents through the development of interesting and easy-to-share content, thereby overcoming the weaknesses in systematic promotion that have been the main obstacle. The development of tour packages that are in line with natural tourism and educational trends should be designed with the preferences of contemporary travelers looking for authentic and meaningful experiences. The creation of an "Instagram-able" travel experience is an important strategy to support organic promotion, where every tourist spot and activity is designed not only to provide a memorable experience, but also to be easy to document and share on social media platforms.

The development of stakeholder collaboration strategies is an important foundation in creating an integrated and sustainable tourism ecosystem. Building strategic cooperation with local governments in infrastructure development requires a proactive approach by preparing comprehensive development proposals and accurate supporting data to convince policymakers of the economic potential of the destination. The development of partnerships with tour operators and travel agents is an important strategy to increase market accessibility and expand the reach of promotions to a wider segment of travelers. In addition, building a network of cooperation with academic institutions can provide support in the development of quality geopark educational content, as well as create scientific legitimacy that can increase the credibility and attractiveness of the destination for the tourist segment seeking an educational experience.

A monitoring and evaluation system for the success of a WO strategy requires measurable and verifiable indicators to ensure that the implementation of the strategy runs according to the plan and delivers the expected impact. The increase in the capacity of local human resources can be measured by the number of people who successfully participate in training programs and obtain competency certifications, as well as their level of active participation in tourism activities. Improvements to supporting infrastructure can be evaluated through physical indicators such as road access conditions, availability of supporting facilities, and the quality of communication networks that can be objectively measured. The increase in systematic promotional activities can be monitored through the frequency of structured promotional activities, social media reach, and the level of engagement generated from various digital platforms. Ultimately, all of these indicators will lead to an increase in the number of tourist visits as the main indicator of strategy success, which can be measured through visit data, homestay occupancy rates, and community income from tourism activities, thus providing a comprehensive picture of the effectiveness of the Turn Around strategy

in transforming the position of destinations from a weak quadrant to a more favorable condition

Conclusion

Based on the results of data analysis and discussions that have been carried out, it can be concluded that the strategic position of Merangin Jambi Geopark tourism is currently in Cell V of the Internal-External Matrix, which recommends the implementation of the "Maintain and Sustain" or *Hold and Maintain* strategy. This position reflects a paradoxical condition where the destination has a fairly good ability to respond to external market opportunities and trends, with an EFAS score of 2.60, but its growth is significantly hampered by several crucial internal weaknesses, with an IFAS score of 2.45. This condition shows that the Merangin Geopark has great potential that cannot be fully optimized due to fundamental problems in internal management. This strategic situation requires a focus on internal consolidation before moving on to a more aggressive growth strategy.

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