

EFFORTS TO DEVELOP THE LALAY CAVE TOURIST ATTRACTION IN KLAPANUNGGAL VILLAGE, KLAPANUNGGAL DISTRICT, BOGOR REGENCY

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Abstract: *Lalay Cave in Klapanunggal Village, Bogor Regency, has significant natural tourism potential, but its development has not been optimal due to several obstacles in supporting tourism aspects. This study aims to analyze the development conditions of the Lalay Cave tourist attraction and identify efforts needed to improve the quality of the tourist destination. The method used is a descriptive study with a quantitative approach through a survey of 100 tourists selected using an accidental sampling technique. Data were collected through questionnaires, observation, documentation, and interviews, then analyzed using a descriptive percentage technique based on indicators of attractions, service facilities, accessibility, infrastructure, and hospitality. The results show that tourist attractions such as the former limestone mine landscape, play areas, and swimming pools are factors that attract tourists, while the accessibility aspect received the lowest rating due to inadequate road conditions to the location and limited public transportation. In addition, there are still limitations in supporting facilities such as sanitation facilities and overflow control of the Cibarengkok River during the rainy season. This study concludes that improving accessibility, improving basic infrastructure, adding supporting tourism facilities, and strengthening environmental management are the main priorities in the development of Lalay Cave. The findings of this study can be considered by managers and local governments in formulating strategies for developing sustainable natural tourism destinations.*

Keywords: tourism development, tourism infrastructure, tourist perception, Lalay Cave

INTRODUCTION

Tourism is a sector that plays a crucial role in economic and regional development. This sector not only contributes to regional income and job creation but also encourages the sustainable utilization of natural and cultural resources. Montanes and Medina (2020) explain that the tourism sector has a steadily increasing contribution to global Gross Domestic Product (GDP) and is a sector capable of driving socio-economic progress.

These findings demonstrate that tourism destination development is not solely focused on increasing tourist arrivals but also serves as an instrument for sustainable regional development. Therefore, tourism destination management requires a development strategy that optimizes local potential while maintaining environmental sustainability.

The success of a tourist destination is influenced by the integration of various components that shape the tourist experience. According to Inskeep (1991), tourist destination development must be supported by adequate tourist attractions, facilities, accessibility, and services. Similar findings were demonstrated by Hidayat et al. (2026), who stated that tourist access, information, and orientation are essential in developing the quality of tourist destination services. This condition indicates that tourist attractions alone are not enough to guarantee the success of a destination. Consequently, tourist destination development must be carried out in an integrated manner, taking into account all supporting components that influence tourist comfort and satisfaction.

From a geographic perspective, tourism activity is a spatial phenomenon influenced by location characteristics, accessibility, movement patterns, and interactions between spaces. Hasan and Hendra (2022) explain that tourism geography examines the relationship between a region's physical characteristics and the tourism activities that develop within a given space. Physiogeographic elements such as topography, geology, climate, and landforms can both attract tourists and determine the level of accessibility of an area. Therefore, the analysis of tourism destination development cannot be separated from the spatial conditions that shape the characteristics and potential of a region.

Among the various factors in tourism development, accessibility is a component that has a significant influence on the development of tourist destinations. Accessibility describes the level of ease with which tourists can reach tourist locations through the support of transportation networks, road conditions, travel time, and the availability of transportation modes. Dinan and Naila (2025) showed that accessibility is one of the factors determining the competitiveness of tourist destinations because it is directly related to the ease of tourist mobility. These findings indicate that destinations with good accessibility tend to have a greater opportunity for development than destinations that are difficult to reach. Therefore, evaluating accessibility aspects is a crucial step in planning tourist destination development.

In addition to accessibility, tourist perception is a crucial indicator in assessing the success of tourism destination development. Tourists are direct users of tourism products, so their assessments can be used to identify a destination's strengths and weaknesses. Septiani et al. (2023) demonstrated that tourist perceptions of attractions, facilities, and accessibility influence their assessment of tourism area development. Research by Yusnaldi et al. (2023) also confirmed that tourist perspectives can be used as a basis for formulating destination development strategies that meet visitor needs. Therefore, analyzing tourist perceptions is a relevant approach for determining tourism destination development priorities.

A good quality tourist destination will impact tourist satisfaction levels and encourage repeat visits. Muhammad et al. (2025) found that tourist experience and tourist satisfaction positively influence the decision to revisit a destination. Conversely, uncomfortable destination conditions can lower tourist perceptions and reduce repeat visit intentions (Reggyananda & Roostika, 2023). These findings suggest that destination quality must be maintained and improved to provide a positive tourist experience. Consequently, tourist destination development needs to be oriented towards tourist needs and expectations.

One tourist destination with potential for development is Lalay Cave, located in Klapanunggal Village, Klapanunggal District, Bogor Regency. This area has unique characteristics, developed on a former limestone quarry, forming a karst landscape with high aesthetic value. In addition to offering natural beauty in the form of limestone cliffs and natural caves, the area also offers a variety of attractive recreational facilities for tourists. These characteristics make Lalay Cave have the potential to develop as a natural, geotourism-based tourist destination in Bogor Regency.

Despite its significant potential, the development of Lalay Cave still faces various obstacles. Based on field observations and previous research findings, limitations remain in accessibility, tourism support facilities, area infrastructure, and environmental management, potentially impacting tourist comfort. This situation indicates a gap between the tourism potential and the quality of the destination's supporting components. If this situation is not addressed immediately, Lalay Cave's tourist attractions will not develop optimally and sustainably.

Various previous studies have examined tourism destination development from the aspects of accessibility (Dinan & Naila, 2025), tourism services (Hidayat et al., 2026), tourist perceptions (Septiani et al., 2023), local community perceptions (Deswikasari & Saputra, 2024), and accessibility and inclusive tourism services (Lestari et al., 2026). However, research that integrates tourist

perception analysis of attractions, service facilities, accessibility, infrastructure, and hospitality in tourist destinations based on ex-lime quarry landscapes is still relatively limited. Therefore, this study has a novelty in using a tourist perception approach to identify development priorities for the Goa Lalay tourist destination based on five main components of destination development. Based on this background, the formulation of the research problem is how the development of the Goa Lalay tourist attraction is based on tourist perceptions and what factors are the priorities for its development. This study aims to analyze the development conditions of Goa Lalay based on indicators of attractions, service facilities, accessibility, infrastructure, and hospitality and to formulate development priorities that can support the sustainability of tourist destinations in Klapanunggal Village, Bogor Regency.

RESEARCH METHOD

This study used a survey method with a descriptive quantitative approach. The survey method was chosen because it allows researchers to obtain data directly from respondents regarding their perceptions of the development of the Goa Lalay tourist attraction through the distribution of questionnaires. According to Creswell and Creswell (2018), survey research is a quantitative research procedure used to collect data from a sample of a population to describe the characteristics, attitudes, opinions, or behavior of respondents towards a particular phenomenon. Through this method, information obtained from tourists can be used to describe the actual conditions of tourist attraction development based on the experiences and assessments of visitors as direct users.

A descriptive quantitative approach was used because this study aims to describe the development conditions of the Goa Lalay tourist attraction objectively based on numerical data obtained from respondents. Creswell and Creswell (2018) explain that descriptive research focuses on the systematic presentation and interpretation of data to describe the phenomena studied without providing treatment or manipulation of research variables. In this study, the development of the tourist attraction was analyzed based on five main indicators proposed by Spillane (1987): tourist attractions, service facilities, accessibility, infrastructure, and hospitality. The data obtained were then processed using descriptive statistical techniques in the form of percentages to measure the level of tourist assessment on each indicator. The results of this analysis were used to identify the strengths and weaknesses of the existing condition of the Goa Lalay tourist attraction and determine the aspects that are prioritized in efforts to develop a sustainable tourist destination.

Time and Location of Research

The research was conducted in March–May 2023 at the Goa Lalay Tourist Attraction located in Klapanunggal Village, Klapanunggal District, Bogor Regency, West Java Province.

The research location was chosen because it is a natural tourism area developing on a former limestone quarry and has significant tourism potential. The study subjects consisted of tourists visiting the Lalay Cave tourist attraction. The sample size was 100 respondents, determined using accidental sampling.

Data obtained through the questionnaire were analyzed using descriptive statistics to describe visitor perceptions of the development efforts of the Lalay Cave tourist attraction. The research instrument consisted of 22 statements with a Likert scale of 1–5. The scores obtained by respondents were then grouped into five assessment categories: very bad, bad, less good, good, and very good. The category grouping was carried out based on the minimum and maximum score ranges of the research instrument to obtain the same class interval for each category.

Table 1. Scores for Tourism Object Development Effort Categories

No	Score Interval	Parameter
1.	98 – 116	Very good
2.	79 – 97	Good
3.	60 – 78	Not good
4.	41 – 59	Not good
5.	22 – 40	Very Bad

RESULTS AND DISCUSSION

Results

The analysis shows that the development efforts of the Lalay Cave tourist attraction have generally received positive reviews from visitors. Of the five indicators studied, four were categorized as good to very good, while the accessibility indicator was categorized as very poor.

This condition shows that the tourist attractions, service facilities, infrastructure, and hospitality of the management have been able to provide a satisfying tourist experience for visitors, but there are still obstacles in the aspect of ease of access to tourist locations.

Table 2. Results of Visitor Assessment of Efforts to Develop the Goa Lalay Tourist Attraction

Indicator	Percentage	Category
Tourist Attractions	83.5	Good
Service Facilities	83.3	Good
Accessibility	35.8	Very Bad
Infrastructure	71.2	Good
Hospitality	94.1	Very good

Discussion

A. Tourist Attractions

The research results showed that the tourism attraction indicator scored 83.5%, categorized as good. This finding indicates that Goa Lalay's main attraction leaves a positive impression on visitors. The beauty of the cliffs, the presence of natural caves, and the waterscape formed by mining activities are unique features that distinguish Goa Lalay from other tourist destinations in Bogor Regency.

According to Cooper et al. (2008), attractions are a key component of the tourism system, driving tourists to a destination. Meanwhile, Yoeti (2016) states that the success of a tourist attraction is largely determined by its ability to offer unique and distinctive attractions compared to other destinations. Therefore, the characteristics of the ex-mining landscape of Lalay Cave can be a key asset in the development of nature-based tourism and geotourism.

Despite this, research results show that some visitors still consider the number of available attractions inadequate. This situation indicates that further development of tourist attractions is needed through the addition of recreational facilities, environmental education areas, and

conservation-based tourism activities. These efforts are crucial for increasing tourist length of stay and expanding the tourism market segment.

B. Service Facilities

The service facilities indicator scored 83.3%, categorized as good. This result indicates that the available facilities are sufficient to support tourist activities while in the Lalay Cave area. Toilets, a prayer room, parking areas, ticket counters, and food stalls are considered adequate, ensuring visitor comfort.

According to Spillane (1994), service facilities are supporting elements that serve to meet tourists' needs during tourism activities. The better the quality of the facilities provided, the higher the level of tourist satisfaction with the destination visited. This finding aligns with research by Sari et al. (2021), which shows that the quality of tourism facilities positively influences tourist satisfaction and loyalty.

However, research also shows that tourists have yet to find unique souvenirs that represent Goa Lalay's identity. This situation suggests that the development of a tourism-based creative economy still needs to be improved. Establishing a center for local souvenirs could be a strategy to increase the destination's economic value while strengthening Goa Lalay's tourism identity.

C. Accessibility

Accessibility was the indicator with the lowest score, at 35.8%, and was categorized as very poor. The study showed that most visitors experienced difficulties reaching tourist sites, primarily due to damaged and potholed roads and limited public transportation to reach them.

According to Gunn and Var (2002), accessibility is a fundamental factor in tourism destination development because it relates to the ease with which tourists can reach their destinations. Cooper et al. (2008) also emphasized that destinations with high appeal will not develop optimally if they are not supported by an adequate accessibility system.

The research findings indicate that the quality of the road to Lalay Cave remains a major obstacle to tourism development. This is reinforced by visitors' perceptions that the access road to the site is not yet fully paved and is still riddled with potholes. Furthermore, the lack of adequate public transportation has led tourists to rely more heavily on private vehicles.

Therefore, improving accessibility needs to be a top priority in the Goa Lalay development strategy. Possible measures include repairing and widening the road leading to the tourist site, installing directional signs, and providing supporting transportation services integrated with residential areas around the tourist area.

D. Infrastructure

The infrastructure indicator scored 71.2%, categorized as good. This result indicates that the tourism infrastructure is adequately provided. The presence of a waste disposal site, communication networks, and other supporting facilities is considered sufficient to support tourist activities in the Lalay Cave area.

According to Inskeep (1991), infrastructure is a fundamental element determining the sustainable development of a tourist destination. Good infrastructure will enhance tourist comfort while supporting effective destination management operations. This finding aligns with research by Pratama et al. (2022), which found that infrastructure quality has a positive relationship with levels of tourist comfort and satisfaction.

However, several respondents still felt that the electricity and communications networks were suboptimal across all tourist areas. Therefore, improvements to the quality of telecommunications networks and other supporting utilities are necessary to enhance service to tourists.

E. Hospitality

Hospitality received the highest score compared to other indicators, at 94.1%, categorized as very good. This result indicates that tourists felt safe, comfortable, and received friendly service from the tourism management during their visit to Goa Lalay.

According to Pitana and Gayatri (2005), the hospitality of the community and management is a crucial factor influencing the image and competitiveness of a tourist destination. Good service will increase tourist satisfaction and encourage revisit intention. This finding aligns with research by Hidayat and Putra (2022), which showed that service quality and staff friendliness significantly influence tourist satisfaction.

The high rating on this indicator indicates that the Lalay Cave management has successfully built a good relationship with visitors. Therefore, the established service quality needs to be maintained and improved through human resource training, the implementation of tourism service standards, and the strengthening of a service culture oriented towards tourist satisfaction.

Overall, the development efforts at the Goa Lalay tourist attraction have shown positive results, particularly in terms of attractions, service facilities, infrastructure, and hospitality. The destination's primary strength lies in its unique former limestone quarry landscape, complemented by friendly service and relatively adequate facilities.

CONCLUSION AND SUGGESTION

Based on the research results, the development efforts of the Lalay Cave Tourist Attraction in Klapanunggal Village, Klapanunggal District, Bogor Regency are generally in the good category. Visitor assessments indicate that aspects of tourist attractions, service facilities, and infrastructure have been able to support tourism activities well, while the hospitality aspect received a very good rating because visitors felt comfortable, safe, and received satisfactory service during their tour. The uniqueness of the natural landscape in the form of cliffs from former limestone mines and natural caves are the main attractions that encourage tourist interest. However, the accessibility aspect remains a major obstacle in tourism development due to the suboptimal condition of the road to the location and limited transportation facilities to the tourist area. Therefore, improving the quality of road access and providing supporting transportation facilities need to be a priority in efforts to develop the Lalay Cave Tourist Attraction so that its tourism potential can develop more optimally and sustainably.

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