



Sustainable Tourism Attraction Management Strategy in Mengeruda Hot Spring, Ngada Regency East Nusa Tenggara

Anna Maria Zoey In Verbi^a, I Made Adikampana

^a*Faculty of Tourism, Udayana University, Bali*

^b*Faculty of Tourism, Udayana University, Bali*

ABSTRACT

The development of tourism today emphasizes environmental sustainability due to the rampant issues of climate change and environmental damage. This study aims to create a management strategy based on the principle of sustainable tourism to increase the percentage of tourist visits and tourist spend of money at the Mengeruda Hot Spring tourist attraction. This study uses a qualitative descriptive method through interviews, observations, literature studies and documentation. The informant determination technique was carried out using a purposive sampling technique. The data that has been collected is then explained and analyzed using the SWOT analysis approach. The results of the study obtained indicate that the Mengeruda Hot Spring tourist attraction has one tourist attraction, namely a hot spring bath, complete facilities and infrastructure. The absence of alternative tourist attractions, lack of workers, lack of public interest in management and cleanliness are obstacles to the development of this tourist attraction. The management strategy that needs to be developed by the Mengeruda Hot Spring tourist attraction is to provide alternative tourist attractions such as rafting and camping, create educational-based school package promos, develop photo spots that involve the community in their management.

Keywords: *Community Management Strategy, Sustainable Tourism*

1. Introduction

Tourism is recognized as a leading sector in the national economic development of Indonesia. The Republic of Indonesia Law No. 10 of 2009 explains that tourism development includes tourism industry, tourism destinations, marketing, and tourism institutions, based on a master plan for tourism development. Tourism itself is defined as a variety of tourism activities supported by facilities and services provided by the community, entrepreneurs, the government, and local governments, which can provide benefits and sustainability in the tourism sector (Suwena, 2017). As a key sector in national economic development, tourism plays an important role in providing various economic benefits such as creating job opportunities, offering chances for other industries to collaborate in investments, increasing national foreign exchange earnings, and more.

Ngada Regency is one of the tourist destinations in East Nusa Tenggara Province with tourism potential that is not widely known. Tourism attractions are the unique features of a place that distinguish it from other places and attract tourists. A tourism destination is an area with attractions, facilities, accessibility, and collaboration or stakeholder cooperation to develop tourism. According to data from the Central Statistics Agency of Ngada Regency in the publication "Ngada Dalam Angka 2021," Ngada Regency has 15 tourism attractions, including 9 traditional villages and 6 natural attractions. Among all the tourism attractions in Ngada Regency, the one with the highest visit rate is Mengeruda Hot Spring with 299,008 visitor arrivals.

Mengeruda Hot Spring is a natural tourism attraction within the Strategic Tourism Area (KSPD) of Soa District and its surroundings in Ngada Regency. It offers natural scenery and hot spring sources developed into a hot spring bathing area. This attraction is managed by the local government through the Ngada Regency Tourism and Culture Office (Meo, 2018). The uniqueness of this attraction lies in its natural hot spring water with a temperature of around 45°C from Mount Inelika, and it is frequently visited by domestic tourists, particularly family groups, resulting in high visitor numbers.

Tourists require several things during their journey to and while at the tourist destination, so every tourism destination should be equipped with four main components: attractions, facilities, supporting elements, and services (Cooper, et al., 1993 in Suwena 2017). According to internal factor analysis by Kota (2019), Mengeruda Hot Spring has good spatial planning with facilities such as pools, changing rooms, recreation areas, and gathering places managed by the SaptaPesona Group. Additionally, access to this attraction is supported by an airport, adequate roads, and organizations like the Soa Tourist Awareness Group that contribute to tourism development. This contributes to the high number of visitors wanting to enjoy the hot spring baths.

The presence of organizations and groups at a tourism attraction helps maintain sustainable tourism resources, ensuring ongoing tourism activities. According to an article in POS-KUPANG.COM by Gordi Donofan dated October 24, 2018, "Ngada Forms 4 New Tourist Awareness Groups," the Ngada Regency Tourism Office has established eleven tourist awareness groups since 2008, including the Soa Tourist Awareness Group. Kota (2018) noted that the organization at this tourism attraction faces challenges due to a lack of human resources. There are also issues such as visitor complaints about cleanliness, a lack of local souvenirs or traditional food, and insufficient cooperation between the village community and the government. Meo (2018) in his study on the physical environmental management of the hot spring attraction in Mengeruda Village, Ngada Regency, East Nusa Tenggara Province, explains that Mengeruda Hot Spring faces problems such as damaged main and supporting facilities, cleanliness issues, and low levels of supervision, security, and maintenance. The service and oversight are not proportional to the high visitor numbers due to the lack of competent management and human resources.

The role of tourist attractions in attracting visitors and increasing visitor numbers means that tourism development must be supported by good and responsible management of the attractions. Effective management maximizes existing potential by improving the quality of facilities and services, creating an authentic experience for visitors. A well-managed attraction can draw more tourist interest, and increased visitation positively impacts the attraction's revenue and benefits the community and future development of the attraction.

The large number of visitors to this attraction impacts economic revenue and the development of the attraction, making it important to consider the environmental, economic, cultural, and social impacts at the tourism site. Panjaitan et al. (2023) state that a tourist attraction needs to maintain its natural beauty and cleanliness to ensure visitor comfort. Nuraida (2017) also notes that low-quality and quantity human resources can affect organizational success. Therefore, to ensure the sustainability of economic, environmental, social, and cultural aspects at a tourist attraction, it is necessary to manage resources that contribute to ecosystem preservation and minimize negative impacts (Pitana, 2019).

Sustainable tourism development provides new opportunities for surrounding communities to gain various benefits. According to Arida (2019), a tourist attraction is considered sustainable if it creates ecological sustainability, is acceptable to the community, is willing to accept cultural differences of tourists, and empowers the community. Tourism development in Ngada Regency aims to boost regional economic growth while prioritizing environmental sustainability. The goals and targets of tourism development in Ngada Regency's 2023 Medium-Term Regional Development Plan (RPJMD) focus on increasing visitor numbers and spending. Based on the previous conditions of Air Panas Mengeruda's tourism attraction and to support these goals and targets, the researcher aims to conduct a study on the current condition of Mengeruda Hot Spring to develop effective management strategies based on internal and external factor analysis.

2. Methodology

The technique used by the researcher in this study is qualitative data analysis. According to Miles & Huberman (in Sugiyono, 2017:132), data analysis is carried out through several stages, including data reduction, data display, and conclusion drawing.

a. Data Reduction Data that has been collected will be summarized to retain only the information relevant to the research objectives, making it easier to interpret the results.

b. Data Display The summarized data is then presented. In this study, the summarized data is described or summarized to make it easier to understand, and is accompanied by explanations.

c. Conclusion Drawing or Verification Based on the presented data, conclusions are drawn.

SWOT Analysis In developing strategies for optimization, SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) is used. SWOT analysis is a management tool that systematically helps in formulating a well-thought-out plan to achieve both short-term and long-term goals. According to Ferrel and Harline (in Rangkuti, 2011), SWOT analysis functions to obtain information from situational analysis and to categorize it into internal issues (strengths and weaknesses) and external issues (opportunities and threats). This analysis provides information about what will help an organization achieve its goals or identify obstacles that need to be addressed.

When managing a tourist attraction, there are challenges that need to be addressed by the managers, and therefore strategies are required to optimize management. According to Rangkuti (2008:19), the performance of a company or organization is determined by the combination of internal and external factors. SWOT analysis compares these external and internal factors, including:

1. SO Strategy (Strengths Opportunities)
 - Objective: Use all strengths to take advantage of opportunities as much as possible.
 - Approach: Leverage internal strengths to capitalize on external opportunities.
2. ST Strategy (Strengths Threats)
 - Objective: Use existing strengths to overcome threats.
 - Approach: Utilize internal strengths to mitigate external threats.
3. WO Strategy (Weaknesses Opportunities)
 - Objective: Use existing opportunities to minimize internal weaknesses.
 - Approach: Address external opportunities to counteract internal weaknesses.
4. WT Strategy (Weaknesses Threats)
 - Objective: Prevent and minimize existing weaknesses and avoid threats.
 - Approach: Focus on minimizing internal weaknesses and avoiding external threats.

3. Results

Overview of Air Panas Mengeruda

Mengruda Hot Spring is a natural tourist attraction sourced from GunungInelika with an average temperature of 36°C. It is located in Mengeruda Village, Soa District, Ngada Regency, and is 3.8 km from Soa Airport, taking about 15 minutes by car. From the regency capital, it is 21 km away, which takes approximately 51 minutes. According to the Strategic Area Development Plan in the Regional Spatial Planning (RTRW) of Ngada Regency for 2012-2032, Mengruda Hot Spring is one of the focal points for tourism development. The concept of this tourist attraction is to promote the natural beauty of Ngada with its hot spring bath and surrounding forest area.

As a flagship tourist attraction in Ngada Regency, Mengruda Hot Spring offers hot spring baths consisting of several pools with varying temperatures, and is also believed to have therapeutic benefits for skin diseases. There are three main areas in this tourist attraction: the reception area, the tourist area, and the forest tourism area. The main attraction of Mengruda Hot Spring is its hot spring baths with the unique feature of natural hot water. Additionally, this natural attraction integrates local architectural styles, such as the traditional Bena roof architecture, and aims to promote Ngada's culture.

Despite having a main attraction, Mengruda Hot Spring currently lacks alternative attractions such as local cuisine or arts that could attract more visitors. The supporting facilities at Mengruda Hot Spring are considered complete and meet visitor needs, including gates, ticket counters, toilets, cottages, changing rooms, rinsing areas, restaurants, accommodations, and parking spaces. The ample parking area can currently accommodate visitors' transportation needs.

The beautiful condition of the tourist attraction is not separate from the involvement of stakeholders. The development of Mengruda Hot Spring also involves various parties, including local government, local communities, academics, and media. Ongoing cooperation has allowed Mengruda Hot Spring to develop well. Unfortunately, the management of this tourist attraction is fully handled by the local government, with limited contributions from the local community. Since 2008, the development of local groups has not progressed well. The tourism office has formed the SaptaPesona Group, a cleaning team consisting of seven men. This group was established because hiring contract workers was not permitted. Currently, there is one staff member from the Tourism Office and four contract workers responsible for maintaining cleanliness at Air Panas Mengeruda. As a popular destination for local visitors, the income generated from entrance fees at Mengruda Hot Spring is higher compared to other hot spring tourist attractions.

Condition of the Tourist Attraction Components at Air Panas Mengeruda

Air Panas Mengeruda, located in Mengeruda Village, Soa District, is frequently visited by individuals seeking to soak and relax with their families. Throughout the year, the hot spring water continuously flows into pools, which are then channeled into public pools and the river. The majority of visitors to Mengruda Hot Spring are domestic tourists rather than international ones. As stated by Cooper et al. (1997), to meet the needs of visitors at a tourist attraction, it is essential to provide four key components: attractions, amenities, accessibility, and ancillary services.

a. Attraction

The uniqueness of a tourist attraction is a distinct feature that sets it apart from others, even if other attractions offer similar experiences. Attractions are the primary reason tourists choose to visit a destination. According to Cooper (1997), tourist attractions can be categorized into several types: natural attractions, cultural attractions, and man-made attractions. Natural attractions utilize existing natural resources as the main appeal of the tourist destination. Typically, minimal changes are made by managers to preserve the authenticity of the natural environment. Cultural attractions involve unique aspects of local life, including lifestyles and customs, which attract tourists. Man-made attractions are those created specifically for tourism purposes.

Mengruda Hot Spring offers a natural attraction with its hot spring water developed into bathing pools. It is open from 09:00 to 19:00 WITA (Central Indonesia Time). Visitors can enjoy four bathing areas: the spring water pool, the public bathing pool, the river, and the stream. Each bathing location has different water temperatures and is available for use according to visitor needs. Currently, there are no additional natural attraction innovations being developed by the local government. No new photo spots, art and dance performances, or other natural attractions are planned. The only planned addition is a trekking tour package to the Matamenge Fossil Dig, which will end at Air Panas Mengeruda.

b. Amenities

The availability of amenities is crucial for visitors, as they require facilities that support their needs while enjoying the attraction. Mengruda Hot Spring must provide adequate infrastructure to enhance the visitor experience and potentially increase return visits. Amenities at Mengruda Hot Spring include parking areas, reception buildings, toilets, changing rooms, public bathing pools, stalls or kiosks, first aid stations, gazebos, clean water and electricity facilities, and multipurpose rooms.

Mengruda Hot Spring has a spacious and organized parking area accommodating motorcycles, cars, minibuses, and tour buses. Parking fees are charged per wheel: 3,000 IDR for two-wheeled vehicles, 5,000 IDR for four-wheeled vehicles, and 10,000 IDR for six-wheeled vehicles. Stalls or kiosks for visitor shopping are located across from the parking area. Additionally, there is a reception area where visitors can gather, equipped with a stall that is not yet in use.

The condition of the public bathing pools is generally clean inside the pool, but the pool's edges have organic waste like fallen leaves. The tiles are dirty, giving an impression of poor cleanliness. The lack of cleaning staff contributes to this issue, as no new work assignments have been made, leading to the pool remaining dirty daily.

Local vendors from Mengeruda Village operate the kiosks, selling items such as snacks, clothing, soap, and other necessities. During certain fruit seasons, like corn, vendors provide local foods such as boiled corn. Currently, vendors do not offer ready-to-eat meals like buffets, as most visitors bring their own food. There is no modern convenience store or special souvenirs available. Past attempts to sell souvenirs like woven bags made from young lontar palm leaves, known locally as 'Bere,' have not been successful.

The facility includes one changing room building and four toilets for men and women. The available facilities are sufficient to meet the needs of visitors without long waits. However, there are no signs directing visitors to rinse off before changing, leading to residue on the changing room floors. Local communities have been given the opportunity to provide toilet facilities near the parking area for both visitors and non-visitors, with the hope of generating income for the community. Unfortunately, these facilities are not usable due to bee nests and poor maintenance.

Gazebos are provided for visitors to store their belongings and gather while eating. These facilities are frequently in poor condition due to the surrounding dirt area.

The Convention Center, which was originally a restaurant but is now underused because visitors bring their own food, currently has a table and some chairs. The supporting columns are slightly rotted, raising concerns about potential collapse. The multipurpose room is open without walls, allowing visitors to use it freely. It lacks additional infrastructure like chairs, tables, carpets, or dining utensils, as visitors typically bring their own. There is also an unused toilet facility behind the multipurpose room.

Mengruda Hot Spring has several information boards that help visitors learn more about the attraction. These boards provide information on entrance fees, other attractions in Ngada Regency, general information, and the history of Air Panas Mengeruda, accessible via a barcode. However, there is no information on location within the attraction, clothing guidelines for bathing, or written warnings to help visitors adhere to rules.

A children's playground is located among the attractions and amenities, allowing parents to easily supervise their children. The playground includes swings, slides, seesaws, and monkey bars. However, the condition of the playground equipment is poor, with rust and damage, indicating a need for maintenance.

c. Accessibility

For visitors to make the decision to travel to a tourist attraction, not only must the attraction itself be appealing, but there must also be available facilities and infrastructure to meet the needs of visitors once they arrive. Accessibility is crucial for enabling visitors to reach the desired attraction easily. As Mengruda Hot Spring is located far from the city center, it is important to provide various means to facilitate visitor access. Visitors need approximately 40 minutes to travel from the city center to the attraction and about 6 minutes from Soa Airport. Currently, there is no dedicated transportation to Air Panas Mengeruda; however, visitors can use local bemo services with a fare of IDR 20,000 per person. Most visitors use private vehicles to reach the attraction. The road leading to Mengruda Hot Spring is well-maintained and comfortable to travel on due to recent road improvements. Visitors from outside Flores Island can also use air transport to reach Mengeruda Village.

The lengthy journey to the attraction can be challenging for first-time visitors, who may need direction signs or internet access to use Google Maps for easier navigation. Fortunately, the journey to Mengruda Hot Spring has been made easier with direction signs at each road junction, allowing visitors to travel without needing an internet connection.

Mengruda Hot Spring does not require advance booking as it is open daily, from Monday to Sunday. However, it tends to be busy on Saturdays, Sundays, and public holidays. Visitors who prefer a quieter experience are advised to visit during weekdays. For more information, visitors can access the website <https://portal.ngadakab.go.id>, which provides details about tourist attractions in Ngada Regency, including Air Panas Mengeruda. Additionally, updates can be found on the Facebook page for PariwisataNgada and Instagram hashtag #ngadatourism. The Head of Ngada Tourism Office mentioned that all information related to tourist attractions in Ngada Regency is consolidated on the Portal Ngada website for easier information dissemination and monitoring. The site does not separate information into different social media accounts, as this approach facilitates easier communication and oversight. The coordinator of the attraction's management team also mentioned that they and the staff share updates through their personal social media accounts regarding events and developments at Air Panas Mengeruda.

d. Ancillary

The development and management of a tourist attraction involve the collaboration of various organizations, which significantly impacts the progress and sustainability of the attraction. Air Panas Mengeruda, managed by the Ngada Regency Tourism Office, benefits from full oversight and development efforts by the local government. This includes engaging the community to boost economic activity and maintain cleanliness at the site. One notable initiative is the establishment of tourism awareness groups in potential tourist areas, such as the Kelompok Sadar Wisata Soa, formed by the Ngada Tourism Office in 2009 and led by Mr. Edwaldus Toda. This group participates in activities like cleaning the tourist site, competing in events, and practicing traditional dances for events at Air Panas Mengeruda.

As a representative of the tourism office, Mr. Benediktus Pudhi Tena has been the coordinator since 2015. Mr. Bene, a financial administration staff member and a local resident of Mengeruda Village, is responsible for managing the attraction. He communicates both the strengths and weaknesses of the attraction to the tourism office, which then reviews the information with the Regional Development Planning Agency (BAPPEDA). The team also includes Mr. Markus, Heri, Aldo, and Arnol. Although the team initially had five members, one was removed due to absenteeism. The remaining four are contracted workers known as SaptaPesona Group, responsible for cleanliness (Interview with Mr. Bene, February 16, 2024).

Another organization contributing to the development of Mengeruda Hot Spring is Bank NTT. The bank provides additional services that are useful for visitors, such as banking facilities for accessing cash or financial services during their visit. These services include the Agen LAKU PANDAI Bank NTT, which offers bill payments, mobile top-ups, online vehicle registration, health insurance (BPJS Kesehatan), cable TV, and regional taxes. Additionally, a mini-ATM service is available, allowing visitors to withdraw or deposit cash at the bank.

Factors Driving and Hindering the Management of Mengeruda Hot Spring Tourist Attraction

Driving and hindering factors are closely related to both internal and external factors of the organization. Driving factors include external and internal elements that benefit the organization's advancement, comprising strengths and opportunities. On the other hand, hindering factors are external and internal elements that pose challenges to organizational development, comprising weaknesses and threats. Analyzing these internal and external factors is crucial in strategic planning as it helps the organization understand its current position and anticipate future risks. Internal factors include strengths and weaknesses originating from within the organization, while external factors involve threats and opportunities from outside that may affect the organization. By identifying these four factors, organizations can formulate strategies to address forthcoming issues, thereby enhancing management performance.

a. Strengths

Strengths refer to all the capabilities within a tourist attraction that provide a competitive advantage. Through these strengths, a tourist attraction can enhance its image and use it to achieve its set goals. Here are the strengths of Mengeruda Hot Spring Tourist Attraction:

Firstly, this tourist attraction has a natural hot spring, which is relatively rare. This uniqueness attracts visitors because the bathing spots are always available, and the management does not need to worry about ensuring the water is continuously provided in optimal conditions. This constant availability of natural resources encourages visitors to return, as the natural resource is always accessible.

Secondly, the attraction is managed directly by the local government. As a government-managed site, it benefits from better promotion through various activities such as festivals and improved promotional media. Its proximity to the airport, with a 6-minute land travel time, makes it easier for international visitors to reach. The well-maintained roads and directional signs greatly assist visitors in reaching the attraction.

Thirdly, the tourist attraction is equipped with adequate facilities and infrastructure to meet visitor needs. This includes parking facilities for vehicle security, changing rooms and toilets for visitors after bathing, a playground for children since many visitors are family tourists, public bathing pools due to increasing visitor numbers, gazebos, and multifunctional rooms for gathering and storing belongings, payment facilities for ease of transactions, visitor registration for the authorities, and food stalls equipped with cash withdrawal and money transfer services. These conditions make visitors comfortable and secure, as their needs for comfort and safety are met.

Lastly, the attraction boasts a sufficiently large area to accommodate many visitors. Compared to other natural attractions, Mengeruda Hot Spring is well-equipped with facilities and infrastructure, covering 5 to 6 hectares, including reception areas, tourist areas, and forested areas. This spaciousness ensures that visitors feel comfortable and enjoy their time at the attraction. The extensive area allows the management to build enough pools to meet the needs of visitors due to increasing visitor numbers. The management can also provide new attraction options, such as white-water rafting using the existing water flow. This enhances the visitor experience and influences their decision to return.

b. Weaknesses

The Mengeruda Hot Spring tourist attraction, which develops the concept of natural tourism featuring a hot spring as its main draw, faces several weaknesses despite having a large area. Currently, there are no alternative attractions that encourage visitors to spend an extended amount of time there. Most visitors come primarily to soak in the hot springs and enjoy family time on weekends or holidays. Although the site is managed by the local

government, issues such as cleanliness, damaged facilities, and security concerns remain. Visitors lack a secure place to store their belongings, forcing them to monitor their items closely or leave them around the pools, affecting the site's appeal.

A shortage of human resources affects various aspects of tourism management at Air Panas Mengeruda, leading to less effective management. This is evident from the lack of a clear organizational structure and formal management system. Although task distribution is done verbally by the coordinator, the staff lacks a clear work system, leading to inadequate visitor management and unclear visiting hours, especially during peak times.

Another weakness is the inadequate oversight of tourism activities due to a shortage of human resources and safety measures. There is a lack of informational signage, prohibitions, and environmental conservation awareness. Cleaning activities are suboptimal, security is poorly managed, and task distribution is unclear, resulting in staff being overworked with insufficient compensation.

High visitor numbers are beneficial for revenue but could lead to issues if not supported by adequate staffing and facilities. Insufficient human resources and lack of visitor supervision could lead to negative growth. The lack of strict visiting hour regulations affects staff working hours and efficiency, impacting the potential for improving tourism facilities and attractions.

The absence of a clear tourism awareness group and proper community engagement has led to reduced local involvement in tourism management. Locals prefer their primary jobs over participating in tourism management, feeling they benefit little from visitor revenue. According to interviews, revenue from entrance fees and parking goes into regional revenue funds, leaving the community with minimal benefits. Community participation in training sessions provided by the tourism office is also low.

Limited funding affects facility repairs and staff motivation. Observations show that some facilities, such as bathroom tanks and toilets, are in disrepair and require temporary fixes. Additionally, several facilities are neglected, damaging the overall appeal of the attraction, including broken trash bins and unused areas.

Despite having a large area, Mengeruda Hot Spring lacks an effective waste management system. Observations reveal that waste disposal areas are open and near children's play areas, affecting visitor perception. The unmaintained multipurpose room and unusable play equipment further decrease visitor comfort.

Inadequate promotional activities have led to low international visitor numbers. Festivals seem ordinary, showcasing only local arts and cuisine. The tourism office's promotional efforts are limited, with poor social media engagement and a website currently under repair. Visitor reviews on Google Maps highlight concerns about cleanliness, which deters potential visitors. The attraction also lacks its own social media accounts, limiting promotional reach. Promotional activities are mainly done through personal Facebook accounts and the Visit Ngada page.

Lack of supervision has led to issues with security, safety, and overall visitor experience. Absence of secure storage options makes visitors uneasy about their belongings, and scattered personal items detract from the site's beauty. There are minimal restrictions on littering, use of chemicals like soap and shampoo in the pools, and washing clothes in the attraction area, contributing to a lack of cleanliness and comfort.

c. Opportunities

Opportunities are identified as all external conditions that can be leveraged in the process of achieving set goals. In the context of managing the Mengeruda Hot Spring tourist attraction, which aims to increase visitor numbers and spending, several opportunities can be utilized to achieve these goals.

One opportunity is to create tour packages so that visitors not only come to soak in the hot springs but also engage in other activities that benefit the attraction. Mengeruda Hot Spring is close to paleontological excavation sites and museums, as well as the Taman Ziarah Maria Fatima and local settlements that host traditional ceremonies. These potentials allow the management to develop tour packages and empower the local community to participate in managing alternative tourism activities, thereby increasing visitor spending. Its proximity to local settlements also provides an opportunity for visitors to learn more about Mengeruda village and its traditional customs, enabling the community to create their own village tours.

Mengeruda Hot Spring has a high visitor rate, making it part of the Strategic Tourism Area (KSPD) of Ngada Regency. This is supported by visitor data from 2020, where Mengeruda Hot Spring had a notable visitor percentage of 57% among many attractions in Ngada Regency. Through the tourism office, Mengeruda Hot Spring is equipped with good planning and spatial management concepts, allowing for effective utilization of the available space.

The increase in visitor numbers presents an opportunity for the management to provide better information services to tourists, thereby making better use of available potentials. Since many visitors are family tourists and couples, there is an opportunity to create photo spots and additional amenities, such as involving locals as photographers or setting up photo printing services so that visitors can take home memories of their visit. Given that these visits are unique and non-repeatable, this opportunity can be used to create unforgettable moments of togetherness.

The high number of visitors also provides an opportunity for the local community to be directly involved in managing the tourist attraction. This aligns with the regent's vision of "a superior, independent, and culturally rich Ngada society based on agriculture and environmentally-conscious tourism,"

allowing the community to develop their own economic resources and address economic issues independently. This involvement also creates opportunities for local training and organizing events or festivals that include the community.

Managed by the Ngada Regency Government, Mengeruda Hot Spring is more easily promoted through various promotional channels and media. The Mengeruda Festival is one of the top 100 Karisma Event Nasional (KEN) events organized by the Ministry of Tourism and Creative Economy. This provides an opportunity for the local government to explore and develop its potential into beneficial activities such as local food exhibitions, regional souvenirs, enhancing tourism awareness, and more.

d. Threats

Threats are seen as external factors that can reduce visitor interest or hinder the goals and objectives of a tourist attraction, potentially affecting its sustainability. For a natural hot spring attraction like Air Panas Mengeruda, which provides a memorable experience for visitors, there are external factors beyond its control that could impact its development. To mitigate or avoid these impacts, the attraction must take proactive measures.

One significant threat is related to environmental changes. For a natural attraction, climate changes such as the rainy season can affect its viability. During heavy rains, the river used for bathing can become unusable due to increased water flow or contamination from nearby settlements. Without proper facilities like roofing, both the pools and the river can be affected, which could force the attraction to close. Additionally, lightning strikes on tall trees during the rainy season pose safety risks to visitors, discouraging them from visiting during adverse weather conditions. Prolonged periods of such weather can lead to decreased visitor numbers.

Another threat comes from the growing tourism industry in Ngada Regency. As tourism becomes a key economic sector alongside agriculture, livestock, and fisheries, local government efforts to boost tourism also introduce competition. Besides Air Panas Mengeruda, there are two other natural hot spring attractions: Air Panas Soka and Air Panas Malanage. The presence of these alternatives poses a threat to Air Panas Mengeruda, as visitors now have multiple options. Although these other attractions are managed by local communities rather than the government, their presence means that visitors may choose them over Mengeruda Hot Spring if the latter's management and facilities do not stand out.

The advancement of technology has also influenced visitor decision-making. With the rise of social media and online platforms like Google Maps, Instagram, Facebook, and WhatsApp, potential visitors often seek out information and reviews before deciding on a destination. Negative comments and slow responses to feedback can deter visitors, especially international ones, if concerns about cleanliness and facility quality are not addressed promptly. Despite having stunning natural features, if international tourists only visit without spending money or enjoying local souvenirs, the goal of increasing visitor spending may not be achieved. Therefore, effective management of online reputation and proactive engagement with visitor feedback are crucial to maintaining and growing the attraction's appeal.

Based on the analysis of internal and external factors for the Mengeruda Hot Spring tourist attraction, the driving and inhibiting factors for its management can be described as follows:

a. Driving Factors

The primary driving factor is the presence of a natural hot spring, which has been developed into a major attraction that significantly enhances visitor numbers and revenue for the management. The local government supports this development through the tourism office, ensuring that visitor needs such as facilities and amenities are adequately met. Additionally, the attraction's strategic location near the airport makes it an appealing destination for tourists from outside the region. The spacious area of the site allows it to accommodate a large number of visitors. Moreover, its proximity to other attractions offers opportunities to create tour packages and collaborate with travel agents. Leveraging the cultural heritage of Mengeruda Village also contributes to increased demand for labor and the addition of alternative attractions.

a. Inhibiting Factors

On the other hand, inhibiting factors include the lack of alternative attractions and souvenirs, which diminishes its appeal, especially for international tourists. There are issues with environmental cleanliness and infrastructure, which reduce interest from tourists and affect their spending. A shortage of human resources impacts the management of cleanliness, security, and aesthetics, thereby decreasing visitor satisfaction. The absence of a Tourism Awareness Group and limited community involvement in management further hinder development. Additionally, promotion programs, especially for international tourists, are not fully optimized to increase visitor numbers. Low visitor awareness about maintaining cleanliness at the attraction also negatively affects their experience. Finally, insufficient community engagement in managing local microbusinesses for souvenirs and local foods poses a threat if competing sites offer additional commercial opportunities to boost visitor spending.

Management Strategies for Mengeruda Hot Spring Tourist Attraction

The presence of a tourist attraction developed in a region is expected to provide benefits and be sustainable. The benefits can be economic, ecological, and social, while sustainability focuses on long-term environmental preservation, financial viability, moral fairness, and care for the local community. The success of the Mengeruda Hot Spring tourist attraction in attracting visitors has led to an increase in visitor numbers, but maintaining sustainability is crucial. The management strategies for Mengeruda Hot Spring include:

- 1) SO Strategy, which involves leveraging strengths to take advantage of opportunities,
- 2) ST Strategy, which uses strengths to address threats,
- 3) WO Strategy, which utilizes opportunities to minimize weaknesses, and
- 4) WT Strategy, which addresses threats by minimizing weaknesses.

Here are the sustainable management strategies for Mengeruda Hot Spring based on sustainable tourism principles:

SO Strategy (Strengths-Opportunities)

To utilize the strengths of Mengeruda Hot Spring to take advantage of opportunities, the strategies to be implemented include showcasing the natural potential of the community through events such as Mengeruda culinary exhibitions, which support the integrity of the tourist destination. Develop products such as photo spots with automatic photo printing to encourage community involvement and improve the quality of local residents by providing training in photography and videography, reducing the need to bring in external photographers or videographers. Reactivate the Tourism Awareness Group to enhance overall visitor experiences.

ST Strategy (Strengths-Threats)

Develop alternative tourist attractions such as camping and white-water rafting, complete with supporting infrastructure like life jackets and camping gear that can be rented out by the community to visitors. Create school programs to raise environmental awareness through 2-day, 1-night camping trips that include education and cleanliness activities such as community clean-ups. Limit visitor hours to align with staff working hours.

WO Strategy (Weaknesses-Opportunities)

Open a daily worker program for the community and youth to manage cleanliness at Air Panas Mengeruda. Offer tour packages related to Mengeruda Hot Spring and local culture, such as the "Get to Know the Mengeruda Community" package, which includes participation in traditional boxing ceremonies or Sagi, concluding with a visit to the hot springs. Create a social media account to provide current information and promote tour packages and visiting hours to prevent visitor confusion when planning trips to Air Panas Mengeruda.

<p>Internal</p> <p style="text-align: right;">Eksternal</p>	<p><i>Strengths</i></p> <ol style="list-style-type: none"> 1. Natural hot spring source. 2. Managed directly by the local government through the tourism office. 3. Strategic location. 4. Adequate facilities and accessibility. 5. Ample open space. 	<p><i>Weakness</i></p> <ol style="list-style-type: none"> 1. No alternative attractions. 2. Poor cleanliness and infrastructure. 3. Lack of human resources. 4. Absence of a Tourism Awareness Group and low community involvement. 5. Suboptimal promotional programs. 6. Lack of visitor management. 7. Insufficient supervision. 8. Low visitor awareness regarding cleanliness. 9. No waste management system.
<p><i>Opportunities</i></p> <ol style="list-style-type: none"> 1. Development of tourism packages 2. Organizing a festival 3. Developing alternative tourist attractions 4. Cooperation with travel agents 5. Creating photo spots 6. Availability of job opportunities 	<p><i>Strategi SO</i></p> <ol style="list-style-type: none"> 1. Showcasing natural potential through a festival featuring Mengeruda's traditional cuisine. 2. Developing photo spots complete with printed photos as souvenirs for visitors. 3. Reviving the Tourism Awareness Group to enhance cleanliness and provide a comprehensive experience. 	<p><i>Strategi WO</i></p> <ol style="list-style-type: none"> 1. Launching a daily worker program for the youth or community to manage cleanliness. 2. Offering tourism packages related to Mengeruda Hot Spring and local culture, such as traditional boxing and understanding community life. 3. Creating a dedicated social media account to provide the latest information and promote tourism packages.
<p><i>Threats</i></p> <ol style="list-style-type: none"> 1. Similar products. 2. Environmental damage and water pollution. 3. Decline in foreign tourist visits. 4. Influence of social media. 	<p><i>Strategi ST</i></p> <ol style="list-style-type: none"> 1. Developing alternative attractions like rafting. 2. Creating school packages to raise environmental awareness through a 2-day, 1-night camping experience focused on sustainable tourism. 3. Limiting visitor hours to align with the work hours of staff. 	<p><i>Strategi WT</i></p> <ol style="list-style-type: none"> 1. Installing information boards with guidelines and rules for visitors, as well as maps/layouts of the tourist site. 2. Repairing damaged facilities and infrastructure.

WT Strategy (Weaknesses-Threats)

Create informational signage with guidelines and rules for visitors, as well as layout information for the attraction, so visitors are aware of the locations and arrangements of pools and facilities. Repair damaged facilities and infrastructure to enhance the visitor experience at the tourist attraction.

4. Conclusion

Based on the previous discussions, several conclusions can be drawn. First, the current tourist attraction at Megruda Hot Spring mainly comprises natural hot springs, rivers, and pools, with no alternative attractions yet developed. The amenities and infrastructure available are comprehensive, including parking facilities, changing rooms, toilets, multipurpose halls, kiosks, convention centers, playgrounds, and general park facilities. Accessibility is well-supported by well-maintained roads and directional signs, allowing both private and public transportation. The ancillary services are managed by the SaptaPesona Group and the Soa Tourism Awareness Group.

In terms of driving factors, the strengths in managing Megruda Hot Spring include its natural hot springs, the availability of facilities and infrastructure, ample open space, government involvement that aids in promotion through national events, and high visitor numbers that create significant employment opportunities. However, challenges include a lack of alternative attractions, insufficient cleanliness of the environment and facilities, inadequate human resources, the absence of an active Tourism Awareness Group, limited community involvement in management, ineffective promotion programs, no visitor management system, inadequate supervision, low visitor awareness of cleanliness, lack of a waste management system, environmental damage, water pollution, decreased international visitor numbers, and the impact of social media.

To address these issues, several management strategies should be implemented. Developing alternative attractions such as rafting and camping, creating educational school packages, establishing community-involved photo spots, hosting local product festivals, adjusting visitor hours to align with staffing levels, enhancing physical and digital informational facilities, and repairing existing infrastructure are all recommended strategies.

For the tourism management (Ngada District Tourism Office), it is advisable to reorganize the Soa Tourism Awareness Group and the SaptaPesona Group. Establishing a dedicated social media presence to provide updated information and showcase Megruda Hot Spring is crucial. Developing photo spots that engage local communities, offering photography training, increasing workforce personnel, and implementing clear signage for sanitation management are also recommended.

For the community, active participation in training and activities organized by the Tourism Awareness Group is encouraged. Providing creative and regularly updated informational signage about Megruda Hot Spring at the reception area and collaborating with schools to organize educational camping activities focused on environmental conservation will contribute positively.

For visitors, it is important to adhere to environmental conservation guidelines and warnings issued by the management to collectively maintain the cleanliness and sustainability of the tourist attraction.

Lastly, future research should focus on investigating the economic impact of the tourist attraction on the local community and regional economy.

REFERENCES

- Arida, Nyoman Sukma, dan Nyoman Sunarta. 2017. *Pariwisata Berkelanjutan*. Denpasar: CAKRAPRESS.
- Arida, Nyoman Sukma, I. Nyoman Sunarta, I. Wayan Suardana, I. Made Adikampana, Saptono Nugroho, dan Putri Kusuma Sanjiwani. 2019. *Perencanaan Pariwisata dan Keberlanjutan Lingkungan: Potret Perencanaan Pariwisata di Karangasem, Bali*. Denpasar: CAKRA MEDIA UTAMA.
- Atmosudirjo, P. 1982. *Administrasi dan Manajemen Umum*. Jakarta: Ghalia Indonesia.
- David, Fred R. (2011). *Strategic Management: Concepts and Cases*. 13th Edition. Pearson Education.
- Dimanik, Janianton, dan Helmut F. Weber. 2006. *Perencanaan Ekowisata: Dari Teori ke Aplikasi*. Yogyakarta: C. V. Andi Offset.
- Dowling, Ross K., dan David A. Fennell. 2003. *Ecotourism Policy and Planning*. Cambridge, USA: CABI Publishing.
- JDIH-BPK RI. 2009. "UNDANG-UNDANG NOMOR 10 TAHUN 2009 TENTANG KEPARIWISATAAN." *jdi-h-bpkri* 5(August).
- Kadir, Abdul. 2003. *Pengenalan Sistem Informasi*. Yogyakarta: Andi.
- Karimah, Selfiyah, dan H. Hastuti. 2019. "THE DEVELOPMENT STRATEGY OF LAKE KELIMUTU TOURIST ATTRACTION IN ENDE REGENCY." *Geosfera Indonesia* 4(2). doi: 10.19184/geosi.v4i2.9222.
- Kementerian Pariwisata dan Kebudayaan. 2008. *Peraturan Menteri Kebudayaan dan Pariwisata No PM.04/UM.001/MKP*.
- Kota, Maria Peni. 2018. "PENGEMBANGAN PEMANDIAN MENGRUDA HOT SPRING SEBAGAI DAYA TARIK WISATA ALAM DI SOA NUSA TENGGARA TIMUR." *Sekolah Tinggi Pariwisata Ambarukmo (STIPRAM)* Yogyakarta, Yogyakarta.
- Liu, Juanita C. 1994. *Pacific Island Ecotourism: A Public Policy and Planning Guide*. Hawai'i The Pacific Business Center Program. College of Business Administration University of Hawai'i at Manoa, Honolulu USA.

- Mckean, Philip Frick. 1977. "Towards a Theoretical Analysis of Tourism: Economic Dualism and Cultural Involution in Bali" in Valine L. Smith (Ed.) *Host and Guests: The Anthropology of Tourism*. USA: University of Pennsylvania Press.
- Meo, Desi DeratusAdven, dan Ida Bagus Suryawan. 2018. "PenangananLingkungan Fisik Di Objek Wisata Air Panas Desa Mengeruda, KabupatenNgada, Provinsi Nusa Tenggara Timur." *JURNAL DESTINASI PARIWISATA* 6 No.2:283–91.
- Nuraida, Anisa. 2017. "MANAJEMEN STRATEGI PENGELOLAAN OBJEK WISATA AIR PANAS CISOLONG KABUPATEN PANDEGLANG." Universitas Sultan AgengTirtayasa, Banten.
- Panjaitan, Remaida, RusmauliSimbolon, Sudirman Lase, Yulia K. S. Sitepu, dan Tio R. J. Nadeak. 2023. "Strategi PengelolaanObjek Wisata Pemandian Air Panas Dalam MeningkatkanKunjunganWisatawan Di KecamatanSipoholon." *Jurnal MahasiswaKreatif* 1.
- Parmawati, Rita, Edriana Pangestuti, Wike, dan RizhaHardyansah. 2020. "Development and Sustainable Tourism Strategies in Red Islands Beach, Banyuwangi Regency." *Journal of Indonesian Tourism and Development Studies* Vol.8, No.3:174–80.
- Purhantara, Wahyu, *Metode Penelitian Kualitatif Untuk Bisnis*, Yogyakarta: Graha Ilmu, 2010.
- PemerintahKabupatenNgada. 2017. *Rencana Induk Pembangunan Pariwisata Daerah KabupatenNgada No. 2*. Bajawa.
- Pitana, I. Gde, dan I. Ketut Surya Diarta. 2019. *Pengantar Ilmu Pariwisata*. Yogyakarta: Penerbit Andi.
- Rangkuti, F. 2006. *Manajemen Strategi: Konsep*. Jakarta: PT Gramedia Pustaka Utama.
- Sugiyono. 2015. *Metode Penelitian KuantitatifKualitatif dan R&D*. Bandung: ALFABETA.
- Sulistyan, Riza Bahtiar, dan Kurniawan Yunus Ariyono. 2018. "Identifikasi Faktor-Faktor Kritis Dalam Minat Berkunjung Kembali Ke Wisata Religi." *Jurnal Manajemen Bisnis Indonesia* 9(1).
- Suwantoro, G. 2004. *Dasar-Dasar Pariwisata*. Yogyakarta: ANDI.
- Terry, G. R. 2016. *Dasar Dasar Manajemen*. Cetakan ke-7. Jakarta: Bumi Aksara.
- Wardhani. 2005. *Pembelajaran dan Penilaian Hasil Belajar Matematika SMP AspekPemahaman Konsep , Penalaran dan Komunikasi, Pemecahan Masalah*. Yogyakarta: PPPG Matematika.
- Yoeti. 1996. *Pengantar Ilmu Pariwisata*. Jakarta: PT. Perca.
- Yoeti. 2008. *Ekonomi Pariwisata (Introduksi, Informasi, dan Implementasi)*. Jakarta: Kompas.
- ZulkiefliMasnyah, Putri Reno Kemala Sari, FitriahPermatadita, Serli Oktapiani, dan Muhammad Nurjihadi. 2022. "Sustainable Tourism Strategy: QSPM and SWOT Matrix." *Asian Journal of Language, Literature and Culture Studies* 45–56.