

**ANALYSIS OF THE EXISTING CONDITIONS OF PONOT WATERFALL NATURE TOURISM AS A BASIS FOR REGIONAL DESTINATION DEVELOPMENT**<sup>1</sup> Sitti Nurlaeli, <sup>2</sup> Made Budiarsa, <sup>3</sup> Putu Hery Susanti<sup>1,2,3</sup> Institut Pariwisata dan Bisnis Internasional, IndonesiaEmail: [s.nurlaeli.abdik@gmail.com](mailto:s.nurlaeli.abdik@gmail.com), [madedudiarsa53@gmail.com](mailto:madedudiarsa53@gmail.com), [herny.susanti@ipb-intl.ac.id](mailto:herny.susanti@ipb-intl.ac.id)**Abstract**

Nature tourism plays a strategic role in regional development because it can drive local economic growth while supporting environmental conservation when managed sustainably. Ponot Waterfall in Asahan Regency is one of the leading nature tourism destinations with strong natural appeal, but its development has not been supported by optimal existing conditions. This study develops an integrated framework for destination development based on existing condition analysis, combining the 4A tourism components and SWOT approach to support sustainable regional tourism planning. The research method used is a qualitative descriptive approach, including field observations, in-depth interviews with relevant stakeholders, and document analysis. Data analysis was conducted qualitatively and supplemented with SWOT analysis to identify the strengths, weaknesses, opportunities, and threats in destination development. The results of the study show that Ponot Waterfall has a major strength in its unique and high-quality natural attractions, but it still faces limitations in accessibility, amenities, and management systems. The conclusion of this study confirms that the development of Ponot Waterfall requires an integrated strategy that focuses on improving infrastructure, supporting facilities, and strengthening destination management to develop sustainably and competitively as a regional tourist destination.

**Keywords:** Existing conditions, nature tourism, Ponot Waterfall, destination development, regional tourism.**INTRODUCTION**

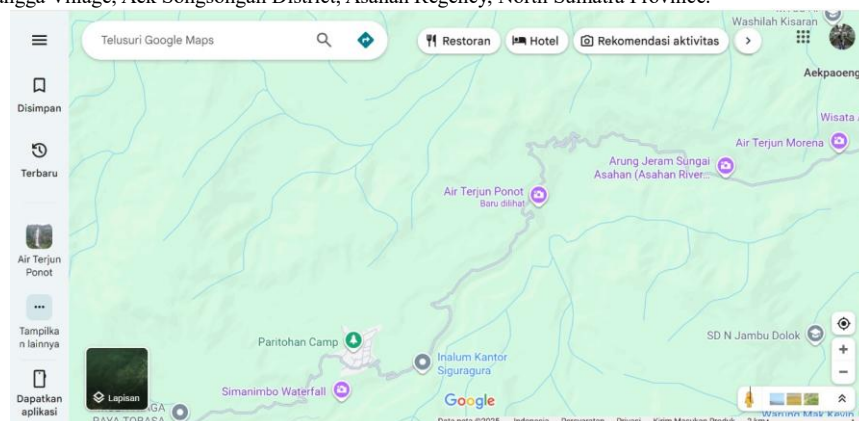
Nature tourism is a strategic sector in regional development because it has great potential as a driver of local economic growth and as a means of environmental preservation when managed sustainably (Mulyani et al., 2021; Risfandini, 2024). To build modern tourism, destination development cannot rely solely on the excellence of natural attractions; it must be planned based on an analysis of the destination's existing conditions. This analysis is an important foundation to ensure that tourism development is carried out in a targeted, measurable manner and in line with the principles of sustainability (Habaora et al., 2021). Analysis of the existing conditions of tourist destinations includes an assessment of attractiveness, accessibility, amenities, and area management. This approach is necessary to assess the destination's readiness to receive tourists and to determine development needs aligned with the environment's characteristics and carrying capacity. Without a comprehensive understanding of the destination's actual conditions, tourism development can be ineffective and may cause environmental and social impacts. In nature-based tourism in Indonesia, analyzing existing conditions is increasingly relevant given the large number of natural tourist attractions with high potential but not yet optimally managed (Sana, 2025). Various studies show that limitations in facilities, infrastructure, and management systems are the main obstacles to the development of nature tourism destinations (Manalu & Manik, 2021; Wahyuni, 2024). Therefore, an assessment of the existing conditions is necessary as a preliminary step before formulating strategies and policies for destination development.

Ponot Waterfall in Asahan Regency is one of the leading natural tourist destinations with very strong natural attractions. This waterfall is known as one of the highest waterfalls in Indonesia, with a height of  $\pm 250$  meters, and consists of three levels, surrounded by pristine tropical forests. The beauty of the natural landscape, the swift and clear water flow, and the cool atmosphere make Ponot Waterfall popular among local tourists. However, this potential has not been fully realized due to inadequate tourism facilities and infrastructure. Access to Ponot Waterfall from Kisaran City takes approximately 3 hours and covers a distance of  $\pm 93$  kilometers. Although improvements have been made to the main road, some access segments still need improvement to ensure visitor comfort and safety. In addition, the walking path to the waterfall is still challenging, and basic facilities such as parking areas, toilets, and information boards are limited, which could affect the quality of the tourist experience. Amenities around the Ponot Waterfall area, including accommodation facilities, are also still minimal and not yet professionally managed. To date, the Tangga Village area and its surroundings lack homestays, eco-lodges, or other standardized alternative accommodations, so most tourists make day trips. In fact, various studies show that the presence of infrastructure and tourism components (4A/6A) is an important factor in determining a tourist destination's readiness and feasibility (Kedang & Soesilo, 2021). The Asahan Regency Government has demonstrated its commitment to developing Ponot Waterfall through various strategic policies, including its designation as a Strategic Tourism Area in Asahan Regent Regulation No. 67 of 2022 and the mainstreaming of the tourism sector in the 2021-2026 Asahan Regency Medium-Term Development Plan (RPJMD). Furthermore, to ensure the development of this destination proceeds effectively and sustainably, a comprehensive scientific study of the feasibility of the existing conditions at Ponot Waterfall Nature Tourism is required. Research on the development of natural tourist destinations shows that facility design, accessibility, and stakeholder involvement are important factors influencing a destination's readiness and feasibility. Manalu & Manik (2021) emphasize the importance of assessing a destination's actual condition before development, while Kedang & Soesilo (2021) highlight the role of infrastructure and amenities in enhancing the quality and attractiveness of tourism. In the context of waterfall tourism, Hajrianti et al. (2025) show that limited facilities and accessibility remain major challenges in destination development. However, previous studies tend to focus on destination development strategies without systematically integrating existing condition analysis as a primary foundation for planning, particularly in emerging nature-based destinations.

Although various studies have discussed the development of natural tourism destinations, those that base their analysis on existing conditions as the main driver of regional destination development are still relatively limited, especially for the Ponot waterfall tourist attraction. Therefore, this study focuses on analyzing the existing conditions of Ponot Waterfall Nature Tourism as the basis for regional destination development. This study is expected to provide theoretical benefits by strengthening tourism research on the evaluation of the actual conditions of natural tourist destinations, as well as practical benefits for local governments and stakeholders in formulating policies, development planning, and prioritizing improvements to tourist facilities.

**RESEARCH METHOD**

This study uses a qualitative descriptive approach to understand and describe the current conditions of Ponot Waterfall Nature Tourism as a basis for regional destination development. This approach was chosen because it helps researchers understand the actual conditions of the destination, management dynamics, and various factors that affect the readiness and sustainability of nature tourism. The research focuses on identifying the potential, problems, and development opportunities based on field realities and stakeholders' perceptions. The research was conducted at Ponot Waterfall Nature Tourism, which is administratively located in Tangga Village, Aek Songsongan District, Asahan Regency, North Sumatra Province.

**Figure 1. Location of Ponot Waterfall, Source: Google Maps, 2025**

Research data was collected through a combination of primary and secondary data to ensure the completeness and validity of the information. Primary data were obtained through structured field observations and interviews with a total of 5 (five) informants purposively selected informants, including village officials, the BUMDes Tourism Unit Manager, local communities, and relevant policymakers. The selection of informants was based on their direct involvement, knowledge, and experience in the management and development of Ponot Waterfall tourism.

Secondary data were obtained through documentation of regional tourism planning and policy documents, such as regional regulations, the Asahan Regency Medium-Term Development Plan (RPJMD), reports from relevant agencies, and relevant scientific publications and previous studies. Data collection was carried out using a checklist to assess the condition of facilities, accessibility, amenities, and other supporting elements, enabling systematic and comprehensive compilation of the data.

Data analysis was performed using qualitative descriptive analysis, following the stages of data reduction, data presentation, and conclusion drawing, as proposed by Miles et al. (2014). Data were analyzed using thematic analysis involving coding, categorization, and interpretation. To maintain data validity, this study employed source triangulation by comparing results from observations, interviews, and documentation. Furthermore, the results of the analysis of existing conditions were integrated with a SWOT analysis to identify the strengths, weaknesses, opportunities, and threats in developing Ponot Waterfall Nature Tourism, thereby providing strategic directions for destination development that are more adaptive, realistic, and sustainable.

## RESULT AND DISCUSSION

A tourist attraction area can develop into a tourist destination if it has complementary physical and non-physical potential. Physical potential includes natural conditions, landscape, climate, and environmental resources, while non-physical potential includes social and cultural support, management, and community perceptions of tourism activities (Katti & Mokodompit, 2025). If these two potentials are managed in an integrated manner, the tourist area can provide economic benefits for the local community and become a source of sustainable regional income for the government (Kristiana & Nathalia, 2021).

Research indicates that Ponot Waterfall Nature Tourism has strong physical potential as the main attraction of the tourist destination. Ponot Waterfall is located in Tangga Village, Aek Songsongan District, Asahan Regency, with a height of approximately ±250 meters and three levels of waterfalls. The heavy water discharge, clear water flow, and the presence of large natural rocks at the bottom of the waterfall create a unique natural panorama with high aesthetic value. These conditions give Ponot Waterfall a rare characteristic and provide a different visual experience for tourists, especially nature lovers.

This field finding is reinforced by interviews with local village officials, who stated that the uniqueness of Ponot Waterfall is the main strength of the destination. One informant said, *"Ponot Waterfall is indeed attractive because of its natural surroundings, large water volume, height, and unspoiled nature. Many visitors come because they want to enjoy the pristine natural atmosphere that has not changed much"* (Tangga Village Official). This statement shows that natural potential is the main factor driving tourist visits to this area.

In addition to the waterfall's physical characteristics, the surrounding natural environment is also very conducive to the development of nature tourism. Based on Sidauruk's (2013) findings, the Ponot Waterfall area is located in a hilly area at an altitude of about 570 meters above sea level, with an average air temperature of 23.65°C, creating a cool, comfortable climate for tourist activities. This condition is reinforced by field observations showing that the area around the waterfall has diverse vegetation and a sufficient supply of clean, easily accessible water. A local community said, *"There is plenty of clean water here, even for the needs of visitors and the surrounding community, so it supports tourism activities without water shortages"* (BUMDes Tourism Unit Manager).

From the perspective of tourists, the natural potential of Ponot Waterfall is also directly felt. One tourist stated, *"What attracted me to come here is the high waterfall and the natural scenery, the air is cool and suitable for relaxing"* (Tourist). This interview confirms that Ponot Waterfall has a very strong natural tourism appeal, both in its physical features and in the environmental conditions that support it. This finding aligns with the view that the main strength of natural tourist destinations lies in the quality and uniqueness of their natural attractions (Nugraha, 2024).

However, despite its strong natural potential, field observations and interviews indicate that the existing conditions at Ponot Waterfall Nature Tourism are not yet fully ready to be optimally developed as a regional tourist destination. In terms of accessibility, although the main road to Aek Songsongan District has been relatively improved, the condition of several segments leading to the waterfall location remains inadequate, with a damaged, narrow road surface. In addition, the pedestrian path from the parking area to the waterfall location, which is quite long, uphill, and lacks safety facilities, poses a challenge, especially for elderly tourists, children, and families. A village official said, *"Road access to the waterfall location is still a major complaint among visitors, especially during the rainy season, because the road is slippery and potholed."*

A similar condition was also expressed by the BUMDes tourism unit manager, who stated that *"many tourists are interested in coming, but some change their minds because they have to walk far and the path is not well organized."* These findings are in line with a report by Sidauruk (2013), which states that although the distance between Ponot Waterfall and the district capital is around 93 km, which is suitable for nature tourism, the poor road conditions, limited facilities and infrastructure, and the lack of regular public transportation are factors that reduce the number of tourist visits. These accessibility limitations have the potential to reduce visitor comfort and safety, and to become a major obstacle to the sustainable development of Ponot Waterfall if not immediately addressed in an integrated manner by the local government and relevant stakeholders.

Difficult and unsafe access tends to reduce repeat visits and limits the segment of tourists who can enjoy Ponot Waterfall, so that this destination is mostly visited by young tourists or adventure lovers. This condition indicates that the tourism market potential of Ponot Waterfall has not been fully realized. A local policy maker stated that *"without improvements to road access and walking trails, the development of Ponot tourism will find it difficult to compete with other destinations that have more visitor-friendly facilities."*

Furthermore, limited access also impacts the effectiveness of tourism area management and supervision. Difficult mobility to the waterfall location makes it difficult for managers to carry out routine maintenance, cleanliness management, and visitor safety supervision. Local residents revealed that *"in the event of an accident or emergency, the evacuation process will take a long time because the path is narrow and difficult for vehicles to pass through."* This condition can increase the risk of accidents and reduce tourists' confidence in the destination's safety (Damardino & Afrini, 2021).

In addition, the lack of regular public transportation to the Ponot Waterfall area causes tourists to depend on private vehicles. This limits access for tourists who do not have vehicles, but also has the potential to cause environmental pressure due to increased vehicle traffic in the surrounding area. From the perspective of sustainable tourism development, this condition indicates the need for access arrangements that prioritize convenience and consider safety, comfort, and environmental carrying capacity.

In terms of amenities and supporting facilities, the study found that Ponot Waterfall Nature Tourism already has several basic facilities to support tourism activities, including parking, simple food stalls, and toilets. The existence of these facilities indicates initial efforts to support tourism activities in the area. However, the number and quality of amenities remain limited and do not fully meet the comfort and cleanliness standards expected of tourists. The parking area is still not well organized, and its capacity is limited during peak visiting times, while the condition of the restrooms at several points is not optimally maintained.

This condition is reinforced by interviews with the BUMDes tourism unit manager, who stated that *"existing facilities are still very limited due to budget constraints and the lack of centralized management, so maintenance has not been optimal."* Local village officials also revealed that *"there are indeed food stalls and restrooms, but most of them were built independently by the community, so their quality is not uniform and does not meet tourism standards."* From the tourists' perspective, these limitations in amenities are quite noticeable, as one visitor noted, *"The place is beautiful, but facilities such as toilets and rest areas are still uncomfortable, so we cannot stay long at the location."*

In addition to basic facilities, this study also found that supporting tourism facilities remain very limited. Information boards, directional signs, safety signs, and facilities for environmental and conservation education are not yet adequately available. In fact, these facilities play an important role in enhancing comfort and safety, as well as tourists' understanding of natural tourist areas. A local policymaker said, *"The lack of information boards and safety signs can pose a risk to visitors, especially in natural areas with steep terrain such as Ponot Waterfall."* This shows that safety has not been a major concern in the management of destination amenities.

The limitations of these amenities and supporting facilities directly affect the quality of the tourist experience. Tourists tend to make short visits without additional activities, so the potential to increase the length of stay and tourism spending has not been fully realized. These findings reinforce previous research, which confirms that the availability and quality of tourism facilities are key factors in increasing visitor satisfaction and encouraging repeat visits (Apriani et al., 2025).

Furthermore, the aspects of management and stakeholder involvement are important findings in this study. Field observations indicate that the management of Ponot Waterfall Nature Tourism remains simple and not yet professionally integrated. Management activities focus more on basic maintenance of the area, without a clear destination management system, long-term planning, or structured tourism promotion strategies. This condition has resulted in suboptimal utilization of tourism potential and a weak position for Ponot Waterfall on the regional tourism destination map.

Interviews with the BUMDes tourism unit manager revealed that "management is still carried out on an ad hoc basis because there is no specific agency to handle it professionally, so promotion and area management cannot be maximized." Similar findings were also conveyed by village officials, who stated that "so far, management has been carried out informally, with no clear division of tasks between the village government, managers, and other related parties." From the perspective of regional policymakers, these limitations are recognized as challenges: "Ponot Waterfall has great potential, but its management still requires institutional strengthening and cross-sector coordination so that its development is more focused."

In addition to management, the involvement of local communities in tourism activities remains relatively limited. Community participation is generally only seen in the informal sector, such as the management of simple food stalls, parking services, and area guards, while involvement in planning, decision-making, and tourism product development is still minimal. A local community member revealed that "we are only involved in opening stalls or helping with parking; we have never been involved in planning or training in tourism management." This condition indicates that the social potential of the surrounding community has not been fully utilized to support destination development.

The limited community involvement has resulted in a low sense of ownership of the destination and limited economic benefits distributed evenly among the surrounding community. In fact, active participation of the local community is an important element in the development of sustainable tourism destinations, as it can strengthen social support, improve the quality of tourism services, and ensure that the benefits of tourism are directly felt by the local community. Therefore, strengthening destination management institutions and increasing the community's active role through training, mentoring, and partnerships are strategic steps that should be prioritized in developing Ponot Waterfall Nature Tourism as a sustainable regional tourist destination.

Based on the results of the existing condition identification obtained through field observations, interviews, and document reviews, all research findings were then analyzed using the SWOT approach to formulate a comprehensive development strategy for Ponot Waterfall Nature Tourism.

**Table 1. SWOT Analysis of Ponot Waterfall Nature Tourism**

Internal / External	Strengths (S)	Weaknesses (W)
	<ul style="list-style-type: none"> <li>- Unique and highly attractive natural waterfall potential (±250 m, three levels)</li> <li>- The natural environment is still relatively pristine</li> <li>- Status as a leading regional tourist destination</li> </ul>	<ul style="list-style-type: none"> <li>- Limited tourist facilities and amenities</li> <li>- Accessibility to the location is not yet optimal</li> <li>- Walking trails are not yet safe and comfortable</li> </ul>
Internal / External	Opportunities (O)	Threats (T)
	<ul style="list-style-type: none"> <li>- Support from local government policies and programs</li> <li>- Growing interest in nature tourism and ecotourism</li> <li>- Opportunities for improving the local economy</li> <li>- Potential for collaboration with various stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>- Risk of environmental damage</li> <li>- Competition with other nature tourism destinations</li> <li>- Decline in tourist interest due to poor service quality</li> <li>- Lack of control over tourist visits</li> </ul>

Based on the SWOT matrix, four alternative strategies for developing Ponot Waterfall Nature Tourism were formulated as follows:

- SO Strategy (Strength-Opportunity)** This strategy aims to leverage the natural potential of Ponot Waterfall to capitalize on policy support and natural tourism trends. Its implementation could include developing tourism products that leverage the destination's natural uniqueness and ecotourism, enhancing the destination's promotion as a regional flagship tourism site, and strengthening the image of Ponot Waterfall as a sustainable natural tourism destination.
- ST (Strength-Threat) Strategy:** This strategy leverages the destination's internal strengths to anticipate external threats, particularly environmental damage and competition from other destinations. Efforts that can be made include applying sustainable tourism principles, controlling the number of tourist visits, and preserving the environment as a key competitive advantage over other destinations.
- WO (Weakness-Opportunity) Strategy:** This strategy focuses on leveraging external opportunities to overcome internal weaknesses, such as improving facilities and accessibility through support from local government programs, strengthening managers' and local communities' capacity through training, and developing a more integrated and professional destination management system.
- WT (Weakness-Threat) Strategy:** This strategy is defensive, aiming to minimize weaknesses while avoiding threats. Its implementation includes gradual improvements to basic infrastructure, enhanced visitor safety and comfort standards, and the drafting of regulations for area management to prevent environmental degradation and a decline in destination quality.

**Table 2. SWOT Matrix**

Internal/External	Strength (S).	Weakness (W).
Opportunity (O).	<b>SO Strategy:</b> Formulating a strategy by leveraging internal strengths to capture external opportunities, including: 1) Developing nature-based tourism products centered on the uniqueness of Ponot Waterfall as a leading regional destination. 2) Optimizing tourism promotion by highlighting the beauty of nature and the authenticity of the environment. 3) Strengthening the destination's image through support for local government tourism development programs.	<b>WO Strategy:</b> Formulating strategies to reduce internal weaknesses by leveraging external opportunities, including: 1) Improving tourism facilities and amenities through government policy support and funding. 2) Gradually improving accessibility to tourist locations. 3) Strengthening the capacity of managers and local communities through tourism training and mentoring.
Threat (T).	<b>ST Strategy:</b> Formulating strategies by leveraging internal strengths to address external threats, including: 1) Implementing sustainable tourism principles to preserve the environment. 2) Organizing tourist areas to increase competitiveness with similar destinations. 3) Controlling tourism activities so as not to damage the natural potential.	<b>WT Strategy:</b> Formulating defensive strategies by minimizing internal weaknesses to avoid external threats, including: 1) Developing more integrated regulations for tourism area management. 2) Improving visitor safety and comfort standards. 3) Gradually improving the management system to prevent a decline in destination quality.

Therefore, based on the SWOT analysis results, the main strengths of Ponot Waterfall are its superior natural potential and its status as a leading tourist destination in the region. Development opportunities are supported by the local government's commitment through tourism development policies and programs. However, the main weaknesses of this destination are limited facilities, limited accessibility, and an optimal management system that is not yet in place. On the other hand, threats include environmental damage, competition with other natural tourist destinations, and a decline in tourist interest if service quality is not improved. The discussion of the research results shows that the development of Ponot Waterfall Nature Tourism should prioritize improving existing conditions before undertaking large-scale development. Improvements in access quality, basic facilities, and amenities must be implemented gradually and in accordance with the environment's carrying capacity. In addition, strengthening destination management through collaboration among local governments, BUMDes tourism unit managers, and local communities is key to achieving sustainable, competitive destination development. Thus, the analysis of existing conditions conducted in this study provides an important empirical basis for the planning and development of Ponot Waterfall Nature Tourism as a sustainable regional tourist destination.

**CONCLUSION**

Based on this study's results, Ponot Waterfall Nature Tourism has strong natural potential as a regional tourist destination, as evidenced by the waterfall's unique physical features and the surrounding natural environment. However, the destination's current conditions indicate that development readiness is not yet optimal, particularly in terms of accessibility, supporting facilities, and management systems. The SWOT analysis shows significant opportunities for development, but internal weaknesses and external threats must be managed strategically to enable destination development. The implications of these research findings indicate that the development of Ponot Waterfall Nature Tourism should be directed towards gradually improving existing conditions by prioritizing increased accessibility, improved facility quality, and strengthened destination management. Local governments, BUMDes tourism unit managers, and relevant stakeholders are expected to use the results of this study as a basis for formulating policies and planning destination development that are more focused and grounded in real potential in the field. In addition, the local community's active involvement needs to be increased so that the economic benefits of tourism are felt more evenly. Further research

is recommended to examine aspects of environmental carrying capacity, quantitative tourist perceptions, and the economic feasibility of destination development to enrich the basis for decision-making in the management of Ponot Waterfall nature tourism.

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