

## Strategy for Developing Waterfall Natural Tourism Destinations in Rural Areas of West Manggarai Regency, East Nusa Tenggara Province, Indonesia: Triple Bottom Line Model Approach

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### Abstrak

This study aims to formulate and analyze development strategies for the Sunsa Namo Waterfall tourist destination in Loha Village, West Manggarai Regency, East Nusa Tenggara Province, Indonesia, using the Triple Bottom Line (TBL) model approach. The TBL framework encompasses three interdependent dimensions: Profit (economic sustainability), People (social equity and community empowerment), and Planet (environmental conservation). Data were collected through in-depth interviews with nine informants, including destination managers, tourism division heads, local community members, and tourists, supplemented by direct observation and documentation. Qualitative descriptive analysis was employed to evaluate the implementation of TBL principles in tourism development. Findings reveal that, from the Profit perspective, the destination has not yet generated sufficient revenue for sustainable development, relying primarily on minimal entrance fees and government subsidies. From the People perspective, community involvement remains limited under traditional management approaches, though opportunities exist for entrepreneurship development and local empowerment. From the Planet perspective, environmental management requires enhanced coordination among managers, communities, and government to ensure ecological sustainability through proper spatial planning, waste management, and conservation practices. This study contributes to the body of knowledge on sustainable rural tourism development by demonstrating the applicability of the TBL model in small-scale natural attractions in developing country contexts, providing practical recommendations for balancing economic viability, social inclusion, and environmental preservation in waterfall tourism management.

**Keywords:** Development Strategy, Triple Bottom Line, and Sustainable Nature Tourism.

### INTRODUCTION

The global tourism industry has experienced unprecedented growth over the past decades, with international tourist arrivals reaching 1.5 billion in 2019 before the COVID-19 pandemic (UNWTO, 2020). Nature-based tourism, particularly waterfall tourism, has emerged as a significant segment within the ecotourism sector, attracting visitors seeking authentic natural experiences and contributing substantially to rural economic development. However, this growth has been accompanied by increasing environmental pressures, including habitat degradation, pollution, and unsustainable resource exploitation (Biancone et al., 2019; Kyrilov et al., 2020; Sulong et al., 2024). The challenge of balancing economic benefits with environmental conservation and community welfare has become paramount, particularly in developing countries where tourism serves as a critical livelihood source for rural communities.

In Southeast Asia, nature tourism destinations face unique challenges related to rapid development, inadequate infrastructure, limited community participation, and insufficient environmental management frameworks (Khan et al., 2021; Putra Nugraha et al., 2024; Wu et al., 2023; Yoopetch et al., 2023). Indonesia, as an archipelagic nation with rich natural and cultural diversity, has prioritized tourism as a strategic sector for economic development. The country possesses immense potential for nature-based tourism, including numerous waterfalls

that remain underutilized or improperly managed (Siregar & Wardhani, 2023; Winarsih, 2022; Wiratama & Pasaribu, 2022). The Indonesian government's commitment to sustainable tourism development, as outlined in the National Tourism Development Master Plan 2019-2025, emphasizes the importance of community-based approaches and environmental conservation (Ministry of Tourism and Creative Economy, 2019).

A flash mud flood and landslide disaster occurred on November 25–27, 2025, in the provinces of Aceh, North Sumatra, and West Sumatra, Indonesia, destroying public facilities, residences, and sources of livelihood due to mud and logs. The factors causing the flash mud flood and landslide were (1) extreme rainfall due to heavy rain triggered by Tropical Cyclone Senyar and Koto, which drew wet air masses to the western part of Indonesia; (2) environmental damage stemming from uncontrolled land conversion, massive forest destruction in upstream areas due to illegal mining and the massive growth of oil palm plantations through forest clearing, resulting in forest degradation in the upstream areas of the river basin that could no longer absorb water, allowing rainwater accompanied by mud to flow uncontrollably; and (3) poor spatial planning, including uncontrolled development on riverbanks and water catchment areas, which worsened environmental conditions and heightened the risk of flash floods accompanied by mud.

This humanitarian tragedy underscores the urgent need for the Indonesian government to comprehensively overhaul its development strategy, moving beyond a sole focus on economic growth driven by extractive industries such as palm oil plantations and mining. There is a critical need to develop sectors that maintain equilibrium among government interests (investment, employment, welfare), environmental sustainability, and community well-being. Sustainable tourism represents one such sector capable of achieving this balance.

West Manggarai Regency in East Nusa Tenggara Province (NTT) exemplifies the challenges and opportunities facing rural tourism development in Indonesia. Despite possessing significant natural tourism assets, including the Sunsa Namo Waterfall in Loha Village, the region has not fully capitalized on its tourism potential. Preliminary observations reveal that Sunsa Namo Waterfall faces multiple developmental constraints: limited visitor numbers (estimated at fewer than 5,000 annual visitors based on 2023 data), inadequate infrastructure and facilities, minimal community involvement in tourism activities, insufficient revenue generation for destination improvement, and absence of comprehensive environmental management plans. These challenges are exacerbated by limited government budgets, lack of professional tourism management, and weak coordination among stakeholders.

The tourism sector can serve as a renewable source of livelihood for communities while maintaining a balance between the needs and interests of the government, environmental and welfare aspects, and public security. Tourism is a crucial investment in Indonesia's non-oil and gas sector. It also represents an investment in the future economy that safeguards environmental sustainability, social justice, and community economic empowerment, ultimately enhancing national economic stability. However, success in tourism development depends on well-prepared supporting factors.

From an economic perspective, the tourism industry creates a long-term economic chain (multiplier effect). It encompasses travel agencies, transportation services, hotels, restaurants, guides, artisan crafts, and tourist destination maintenance. Furthermore, the tourism industry requires agricultural, livestock, and fishery products, as well as building materials and equipment. The workforce can be absorbed to support the success of this chain, yielding a wide range of economic benefits.

On the other hand, tourism can revitalize local cultures that have nearly died out or been abandoned. The government has committed to enhancing national tourism development as a reliable sector to increase foreign exchange earnings, expand employment and business opportunities, encourage regional development, and boost economic activity. It promotes the

preservation of the nation's natural and cultural values, fostering a sense of love for the homeland and nation. This commitment also spurs development and maintains the continuity of national tourism development. The development of sustainable tourism strategies requires a balanced, equitable, and comprehensive approach, including increasing revenue from tourist destinations, involving communities, and preserving the natural environment. The above strategic management thinking can be illustrated through the Triple Bottom Line model.

This model aptly describes tourism development strategies based on the Triple Bottom Line, which encompasses three aspects: profit, people, and planet. All three are well-suited to sustainable tourism development related to nature conservation. Profit ensures that efforts to increase tourism align with income generated from managing the tourist destination itself. From the People perspective, natural tourism management is effective if it empowers the surrounding community through involvement in its development. From the Planet perspective, natural tourism management should prioritize protecting and maintaining nature conservation. The objectives of this study are: (1) to formulate a strategy for developing the natural tourism destination of Sunsa Namo Waterfall in Loha Village, West Manggarai Regency, East Nusa Tenggara Province (NTT); and (2) to implement a strategy based on the Triple Bottom Line model approach—namely, Profit, People, and Planet—in the development of the natural tourism destination of Sunsa Namo Waterfall in Loha Village, West Manggarai Regency, East Nusa Tenggara Province (NTT).

Several studies have examined tourism development strategies in similar contexts, providing valuable insights while revealing significant research gaps. Anut, Samin, and Mari (2021) investigated the development of Cunca Rede Waterfall in East Manggarai Regency, focusing on tourism potential and basic infrastructure needs, but their study did not employ a comprehensive sustainability framework or examine the integration of economic, social, and environmental dimensions. Mulyadi (2017) analyzed development strategies for Bissappu Waterfall in Bantaeng Regency using SWOT analysis, identifying strengths, weaknesses, opportunities, and threats, yet the research lacked depth in community empowerment mechanisms and environmental management protocols. Parta and Arafah (2020) explored community-based natural tourism development strategies for Rangko Cave in West Manggarai Regency, emphasizing community participation, but their study did not systematically evaluate economic sustainability or provide quantitative indicators of success.

Research on the Triple Bottom Line model in tourism contexts has primarily focused on large-scale enterprises and urban destinations. Heriyani, DP, and Silfi (2019) examined TBL disclosure in Indonesian and Singaporean companies, finding that corporate TBL implementation varies significantly based on organizational size and sector. Latifah (2019) assessed TBL performance in high-profile and low-profile companies listed on the Indonesia Stock Exchange, revealing that sustainability reporting quality correlates with company visibility and stakeholder pressure. However, these studies concentrated on corporate contexts rather than small-scale rural tourism destinations, leaving a significant gap in understanding how TBL principles can be operationalized in resource-constrained, community-based tourism settings.

The identified research gaps include: (1) absence of comprehensive studies applying the TBL framework specifically to waterfall tourism destinations in rural Indonesian contexts; (2) limited empirical evidence on the operationalization and measurement of TBL dimensions (Profit, People, Planet) in small-scale natural attractions; (3) insufficient research on stakeholder integration mechanisms (managers, communities, government, tourists) in sustainable waterfall tourism development; (4) lack of context-specific strategies addressing the unique challenges of rural tourism destinations with limited resources and infrastructure; and (5) minimal documentation of best practices and lessons learned from TBL implementation in similar geophysical and socio-economic environments.

The urgency of this research is underscored by multiple converging factors. First, the environmental crisis exemplified by the 2025 flash floods in Sumatra demonstrates the catastrophic consequences of unsustainable development practices, highlighting the critical need for development models that prioritize environmental conservation alongside economic growth. Second, rural communities in NTT, including Loha Village, face persistent poverty and limited livelihood opportunities, with tourism representing a viable pathway for sustainable economic development and poverty alleviation. Third, unmanaged or poorly managed tourism destinations risk environmental degradation, cultural erosion, and unequal benefit distribution, potentially exacerbating existing socio-economic inequalities. Fourth, the post-COVID-19 tourism recovery phase presents a unique opportunity to rebuild tourism infrastructure and management systems based on sustainability principles rather than reverting to pre-pandemic practices. Fifth, government commitments to Sustainable Development Goals (SDGs)—particularly SDG 8 (Decent Work and Economic Growth), SDG 11 (Sustainable Cities and Communities), and SDG 15 (Life on Land)—require practical implementation frameworks at the local level.

This research offers several novel contributions to the field of sustainable tourism development. First, it provides one of the first comprehensive applications of the Triple Bottom Line framework specifically to waterfall tourism destinations in rural Indonesia, generating context-specific insights and operational guidelines. Second, the study develops a stakeholder integration model that demonstrates how managers, local communities, government agencies, and tourists can collaboratively contribute to sustainable tourism development under resource-constrained conditions. Third, it generates empirical evidence on the current state of TBL implementation at Sunsa Namo Waterfall, establishing baseline data for future longitudinal studies and comparative research. Fourth, the research produces practical, actionable recommendations tailored to the specific challenges and opportunities of small-scale rural natural attractions, enhancing applicability for practitioners and policymakers. Fifth, it contributes to the theoretical discourse on sustainable tourism by demonstrating how global frameworks (TBL) can be adapted and operationalized in diverse local contexts, advancing our understanding of context-sensitive sustainability approaches.

This research aims to analyze the current development of Sunsa Namo Waterfall using the Triple Bottom Line (Profit, People, Planet) framework to identify its strengths, weaknesses, opportunities, and constraints. Based on this analysis, it seeks to formulate integrated development strategies that balance economic viability, community empowerment, and environmental conservation. The study also intends to evaluate stakeholder roles and perceptions to foster better collaboration, ultimately providing evidence-based recommendations to enhance sustainable tourism management at the site.

The outcomes of this study are expected to enrich sustainable tourism theory by testing the TBL framework in a rural, small-scale context and to offer practical, actionable strategies for local managers and policymakers. It will provide a replicable model for similar destinations, generate vital baseline data for monitoring, and improve stakeholder coordination. Furthermore, the findings carry significant policy and social implications, including informing regional tourism strategies aligned with national goals and the SDGs, justifying investments in infrastructure, and potentially empowering the local community through new economic opportunities, social cohesion, and the preservation of cultural and environmental practices.

## RESEARCH METHOD

This research focuses on the development strategy for the Sunsa Namo waterfall natural tourism destination in Loha Village, West Manggarai Regency, East Nusa Tenggara Province (NTT), using the Triple Bottom Line model as a strategic approach. The research subjects were located where the research data were obtained. This research was conducted at the Sunsa Namo

waterfall natural tourism destination in Loha Village, West Manggarai Regency, East Nusa Tenggara Province (NTT).

The research informants were the Sunsa Namo manager who has managed the Sunsa Namo waterfall natural tourism area in Loha Village, the head of the tourism destination division, the community around the Sunsa Namo waterfall and several tourists who visited the Sunsa Namo waterfall. The sample from the total population was nine people, consisting of two Sunsa Namo waterfall managers, one head of the tourism division, three people from the community around the Sunsa Namo waterfall and three tourists.

The data collection methods used in this study are (1) interviews, (2) observation, and (3) documentation. In this data collection method, the measuring instruments used to obtain or collect data are interview guidelines, observation, and documentation using an approach called the Triple Bottom Line, which focuses on People (society), Planet (environment), and Profit (profit). This research data uses interview and documentation data, analyzing and elaborating all the data obtained. In its capacity as a research instrument, the researcher has made every effort to adapt to the field. Recognizing the culture, characteristics, and vision and mission of the research object. As a research instrument, the researcher has attempted to engage scientifically and not through usual social interactions or involvement.

The data analysis method is compiled and presented and analyzed using qualitative descriptive using the Triple Bottom Line model approach. The data analysis method in this study is carried out in various stages as follows: (1) Describing the steps taken by managers, the surrounding community, and tourists and taking the common thread, what steps must be maintained, changed and updated. (2) From the results of data processing, then sorting is carried out related to the objectives of this study, namely sorting and entering responses grouped into three approaches, namely: (a) People approach (society) in development, (b) Planet approach (environment) in development, (c) Profit approach (profit) in development.

## **RESULTS AND DISCUSSION**

### **Implementation of the Sunsa Namo Waterfall development strategy based on the people or community perspective**

The involvement and participation of local communities is essential in the development of tourism or ecotourism areas, as they are the owners of the tourism resources offered to tourists. In general, community participation and involvement can be interpreted as the right of citizens to participate in the decision-making process at every stage of development, from planning, implementation, monitoring, and preservation. Communities are not merely beneficiaries or objects of development, but rather the subjects of development. This is expected to foster and develop motivation and creativity in the arts and culture, increase employment opportunities, and foster opportunities for local entrepreneurial spirit as a form of community participation and involvement.

Local communities, or those residing near tourist destinations, play a crucial role in supporting the successful development of nature tourism. Their role in preserving the environment, a key attraction of nature tourism, cannot be overlooked. The most important aspect is empowering local communities by involving them in various tourism activities. Therefore, managers must adopt policies to encourage communities to actively and positively participate in tourism development by preserving the environment around them. For tourism development to be sustainable and effective, the views and expectations of local communities must be taken into account.

From the People's perspective, there are several factors that are carried out by the management of the Sunsa Namo waterfall as planned as follows:

### 1) Human Resource Planning

Good human resource planning in tourism development is expected to create a qualified, professional, and competent workforce to serve tourists. This will help increase the competitiveness of tourism destinations and provide significant economic benefits to local communities. (Interview with Mr. Grgorius Ema, May 10, 2023).

Planning training and skills development of human resources by taking into account the needs of the workforce, training and skills development programs can be designed to improve the competence and professionalism of tourism workers, can include training in customer service, destination management, tour guides, and foreign language skills, according to market needs.

### 2) Community Involvement

Sunsa Namo Waterfall, as a natural tourist destination, is highly beneficial for local residents. Business development opportunities and the creative motivation to develop arts and cultural craft businesses can be pursued by the local community. Business opportunities such as setting up food and beverage stalls to meet visitors' needs, providing stalls selling locally produced handicrafts, providing accommodations, maintaining security, and other ventures provide opportunities for local residents to develop their entrepreneurial spirit.

In this regard, the manager of the Sunsa Namo Waterfall tourist destination explained, "I believe that community involvement is crucial in developing a tourism destination. Local communities possess unique knowledge and expertise regarding the environment, culture, and local heritage. Involving them in the decision-making process and destination management will ensure that tourism development takes into account the interests and needs of the local community." (Interview with Mr. Antonis Mali, May 10, 2023)

Mr. Antonius Mali, the Manager, added that "Involving the community in developing a tourist destination can create a more authentic and meaningful experience for tourists. Through participation in cultural activities, such as festivals or art performances, tourists can experience the daily life of the local community. Furthermore, the community can also provide recommendations for interesting places that are rarely known to tourists, thus increasing their satisfaction during their visit."

### 2) Involvement of Related Institutions

The involvement of related institutions in question includes visitors, local communities, and the local government, as these parties contribute to the development of tourist destinations, particularly the Sunsa Namo waterfall. The destination manager explained, "I believe the involvement of related institutions is crucial in developing tourist destinations. Related institutions, such as the government, tourism organizations, and cultural institutions, play a significant role in regulating and managing tourist destinations. Involving these institutions in the decision-making and planning process will ensure that destination development is carried out in a coordinated and sustainable manner." (Interview with Mr. Gregorius Ema, May 11, 2023).

"Previously, there weren't many visitors, but over the past year, the number has increased. The waterfall used to be very dirty, but now it's no longer so because every Saturday, the management and the local community hold a community service." (Interview with Ms. Muliani, a member of the community, May 11, 2023).

"This natural tourist attraction needs to be developed. I've provided input for its development, but I must admit that further improvements are needed, especially in terms of facilities, which are indeed inadequate." (Interview with Ms. Margareta Dulung, Head of Tourism Management, May 11, 2023).

Thus, the results of the interviews above can be concluded that Sunsa Namo Waterfall has been busy with visitors for the past year because it still maintains its beauty and natural beauty, and the involvement of related institutions has been very supportive in the development

of the Sunsa Namo Waterfall tourist destination. Furthermore, this tourist destination could grow significantly if improved, but there has not been any significant change. Therefore, further development is needed, especially in terms of facilities, which are still inadequate, awaiting implementation from the government.

The development of Sunsa Namo Waterfall is certainly inseparable from the role of the resources owned by the tourist attraction's management. This can be seen from two perspectives: internal and external. Internally, the relationship between people and tourist destination development can be seen in the following ways:

- 1) Developing management capabilities, namely by increasing management capacity at Sunsa Namo waterfall so that management becomes better.
- 2) Improving services to visitors, service is something that is most considered in the world of services because from the quality of service visitors will be satisfied and it has become a general rule, that if someone is satisfied then they will become a reference group that will recommend to others to use products or services like what they feel.
- 3) Improving employee professionalism through a training system or series of processes designed to enhance an employee's skills and knowledge to achieve a goal. Through this platform, managers can ensure that the management process is supported by professional employees who understand regional development strategies.

The relationship between people and external development can be seen from the following things:

- 1) Community empowerment by providing the community with business premises and making crafts and raw materials is a characteristic of the Sunsa Namo waterfall.
- 2) Involving the community in protecting, maintaining and preserving the environment by providing trash bins at every corner so that visitors do not litter and inviting the community to work together to maintain cleanliness.

### **Implementation of Sunsa Namo Waterfall Development Strategy Based on Planetary or Environmental Perspective**

The environment surrounding a tourist destination is crucial for improving its quality. Communities living near the destination must also improve the surrounding environment to ensure tourists feel at home at Sunsa Namo Waterfall, encourage return visits, and recommend the destination, particularly Sunsa Namo Waterfall. The development of Sunsa Namo Waterfall takes geological, geographical, and climatological aspects into account.

Geology is a development aspect that pays attention to soil materials, stability, absorption capacity, as well as erosion and soil fertility for the development of human life related to the fulfillment of human needs through development and environmental problems that occur as a result of the exploitation of natural resources, as well as human interaction with the environment.

Geography is an aspect that includes tourist destinations, which consist of holiday destinations in certain seasons such as summer, spring, winter and rest areas for health purposes, such as hot/mineral springs, mountains or beaches and the area used, as well as natural boundaries.

Climatological aspects, namely air temperature and humidity, indicate the amount of water vapor in the air. This water vapor content is important because it absorbs Earth's radiation, which determines how quickly heat is lost from the Earth. It also helps regulate air temperature and rainfall, wind strength, average solar radiation, and seasonal variations.

The protection and security planning for the area is expected to ensure the preservation and cleanliness of the Sunsa Namo waterfall area, both within the tourist area and the surrounding environment. In terms of security, access to the waterfall is expected to be improved so that visitors feel safe in the area.

### 1) Regional Planning

The existing food stalls are not yet neatly arranged and are still combined with accommodation, therefore it is planned to create a special location for food stalls.

### 2) Supervision Activity Planning

Increased supervision at several points considering that access conditions to the Sunsa Namo waterfall are quite dangerous, so supervision is necessary.

Implementation of the ecotourism development strategy for waterfall nature tourism based on planetary/environmental aspects can be done as follows:

- 1) Maintain and protect natural resources, both flora and fauna, in accordance with the law, protect flora and fauna around the Sunsa Namo waterfall.
- 2) Environmental managers must pay attention to socio-cultural elements. The social and cultural environment created by humans is a system of values, ideas, and beliefs that shape behavior as social beings.
- 3) Environmental management must consider physical elements. Area development must also consider the feasibility of development and its impact on the environment, and therefore, it must be accompanied by an environmental impact analysis document.

## **Implementation of Sunsa Nama Waterfall Development Strategy Based on Profit Perspective Management**

From a business and management perspective, tourism destination management must be developed to increase tourist arrivals. Destination development should keep pace with developments and changes in the modern era. Like any industry striving to retain customers, tourist destinations face similar demands. Destination development must be oriented toward customer satisfaction. Environmental design and services must provide comfort so that tourists do not feel bored when visiting the destination.

The arrangement of tourist destinations must pay attention to the balance between environmental preservation and business, so that the development does not ignore one of the elements which will actually be detrimental in the future, especially if the development results in environmental preservation factors being detrimental to future generations.

The Triple Bottom Line model is a management concept that has advantages compared to other concepts, especially related to environmental issues because through this concept, the relationship between business issues, community empowerment, and environmental sustainability is clearly depicted. Where these three things, namely people, planet and profit, are a series of thoughts on how development will be carried out must consider the profits to be obtained, but by involving humans as objects and subjects of empowerment and development, it must also consider the existence of the planet which is important for preserving its environment.

The management of Sunsa Namo Waterfall faces a similar challenge, requiring funds to improve the area's facilities and infrastructure, maintain it, and provide compensation or incentives to employees assigned to manage it. Therefore, the management collects ticket fees and other service fees, the proceeds of which are managed by the organization for the management of the area. From a profit perspective, the management of Sunsa Namo Waterfall implements several measures, including:

### 1) Ticket and Retribution Tariff Planning

Entrance fees and insurance are managed by the government, but are also shared with the community. Toilet and parking fees are fully managed by the community, as they are committed to maintaining the cleanliness of the Sunsa Namo Waterfall tourist destination. The toilet fee is Rp 2,000, while the parking fee is Rp 5,000 for four-wheeled vehicles and Rp 2,000 for two-wheeled vehicles.

## 2) Budget Planning

In the concept of development, planning is one of the most crucial factors because with proper planning, development can be implemented according to expectations. Planning is closely related to the budget, which is one of the supporting factors for the implementation of planning in the field. Many plans fail to be realized because they are not supported by an appropriate and strong budget to support their implementation. This is also clarified by the Tourism Destination Sector, which states:

"In the development of Sunsa Namo waterfall, financial issues remain a significant obstacle. The destination lacks a strong source of funding from ticket sales and levies, due to the limited number of visitors to the Sunsa Namo waterfall. Furthermore, Sunsa Namo waterfall lacks a stable or sustainable source of funding, so development can sometimes only be achieved by demonstrating the management's ability to manage levies." Interview with Ms. Margareta Dulung, the manager, May 11, 2023.

Meanwhile, assistance from the local government, in this case the Tourism Office as a stakeholder in the development of the Sunsa Namo Waterfall Tourist Destination area in West Manggarai Regency, is still experiencing budget limitations because the regional income level has not been able to accommodate the interests of the development as a whole.

## 3) Facilities and Infrastructure Management Planning

Currently, the facilities and infrastructure must be further improved to ensure tourists feel at home at Sunsa Namo Waterfall, as explained by the Tourism Destination Division, who said: "So, first, there is grassroots guidance. For example, we will record all the facilities and infrastructure that we will improve, while those that have not been, we will propose or propose these facilities. So, what we prioritize first is the procurement of gazebos. Although the facilities are still incomplete, in the future we will strive to improve them." Interview with Ms. Margareta Dulung, May 11, 2023.

From the research results that have been presented previously, the process of developing tourist areas to be more integrated and planned, from a profit perspective, managers should pay attention to the following matters:

- 1) Increasing funding sources and fostering partnerships with the community. This partnership takes the form of providing entrepreneurship training or establishing cooperative-like trading groups. These groups allow traders to benefit from these benefits, including assistance from the banking sector in providing capital and utilizing social media to promote Sunsa Namo Waterfall. This allows traders to become more advanced and empowered, ultimately resulting in better returns to the management.
- 2) Utilizing strategic land for management and generating revenue for this partnership can be achieved by providing a dedicated area for the community to sell souvenirs and other tourism-related items. Through this partnership, the management will receive revenue from fees paid by the vendors, which will then be optimally managed by the management for the improvement and development of Sunsa Namo Waterfall.
- 3) Effective utilization of funds, where the ability of financial management will greatly influence the development of the Sunsa Namo waterfall tourist destination, one of which is the success of management from the financial side, for example the ability to use funds effectively.

## CONCLUSION

This study applied the Triple Bottom Line (Profit, People, Planet) approach to managing the Sunsa Namo Waterfall tourist area in Loha Village, West Manggarai Regency, revealing key insights: from a Profit perspective, economic benefits derive solely from entrance ticket fees, which are insufficient for development and reliant on local government aid from the Tourism Office; from a People perspective, management remains traditional, led by a small

group of managers with minimal community involvement; and from a Planet perspective, local government policies mandate attention to geology, geography, and climatology in development to safeguard the environment. For future research, longitudinal studies could empirically measure the impact of targeted interventions—such as diversified revenue streams, community training programs, and stricter environmental monitoring—on TBL performance at Sunsa Namo Waterfall and comparable rural sites, using quantitative indicators like visitor revenue growth, participation rates, and biodiversity metrics to validate strategy effectiveness over time.

## REFERENCES

- Biancone, P. P., Secinaro, S., Radwan, M., & Kamal, M. (2019). Halal tourism: An opportunity for the global tourism industry. *Tourism Analysis*, 24(3). <https://doi.org/10.3727/108354219X15511865533112>
- Hasmida, H., & Sudhartono, A. (2020). Potensi wisata alam air terjun Tompa Ika di Desa Sakita, Kecamatan Bungku Tengah, Kabupaten Morowali. *Jurnal Warta Rimba*, 8(1), 91–96.
- Heriyani, H., DP, E. N., & Silfi, A. (2019). Analisis pengungkapan triple bottom line dan faktor yang mempengaruhi: Studi pada perusahaan Indonesia dan Singapura. *Jurnal Akuntansi (Media Riset Akuntansi & Keuangan)*, 8(1), 67–79.
- Khan, M. R., Khan, H. U. R., Lim, C. K., Tan, K. L., & Ahmed, M. F. (2021). Sustainable tourism policy, destination management and sustainable tourism development: A moderated-mediation model. *Sustainability*, 13(21), 12156. <https://doi.org/10.3390/su132112156>
- Kyrylov, Y., Hranovska, V., Boiko, V., Kwilinski, A., & Boiko, L. (2020). International tourism development in the context of increasing globalization risks: The example of Ukraine's integration into the global tourism industry. *Journal of Risk and Financial Management*, 13(12), 303. <https://doi.org/10.3390/jrfm13120303>
- Latifah, S. W. (2019). Penilaian kinerja triple bottom line perusahaan high profile dan low profile yang terdaftar di Bursa Efek Indonesia. *Jurnal Akuntansi dan Pajak*, 20(1), 55–65.
- Mulyadi, A. (2017). *Analisis strategi pengembangan objek wisata Air Terjun Bissappu di Kabupaten Bantaeng* (Tesis tidak dipublikasikan). Universitas Islam Negeri Alauddin Makassar.
- Parta, I. N., & Arafah, N. (2020). Strategi pengembangan Gua Rangko sebagai daya tarik wisata alam berbasis masyarakat di Kecamatan Boleng, Kabupaten Manggarai Barat, Nusa Tenggara Timur. Dalam *Manajemen Forum* (hlm. 35–47).
- Putra Nugraha, I. G., Gede Parma, I. P., Putri Agustina, M. D., & Hutnaleontina, P. N. (2024). The role of government and community participation in realizing sustainable tourism development in Tihingan Village, Bali, Indonesia. *Journal of Infrastructure, Policy and Development*, 8(8). <https://doi.org/10.24294/jipd.v8i8.4621>
- Siregar, S. R., & Wardhani, T. (2023). The practice of internet marketing and nation branding towards Indonesian tourism sectors. *International Journal of Environmental, Sustainability, and Social Science*, 4(2). <https://doi.org/10.38142/ijesss.v4i2.521>
- Sulong, Z., Chowdhury, M. A. F., Abdullah, M., & Hall, C. M. (2024). Constructing a sustainable halal tourism composite performance index for the global halal tourism industry. *Asia Pacific Journal of Tourism Research*, 29(7). <https://doi.org/10.1080/10941665.2024.2350413>

- Winarsih, T. (2022). Performance improvement strategies in the Indonesian tourism sector. Dalam *Proceedings of the 2nd International Conference on Business & Social Sciences (ICOBUSS)*.
- Wiratama, B. F., & Pasaribu, E. (2022). Measuring the magnitude of film tourism as a catalyst of the Indonesian tourism sector: A case study of *Laskar Pelangi* film in Belitung Island. *Journal of Indonesia Sustainable Development Planning*, 3(1). <https://doi.org/10.46456/jisdep.v3i1.255>
- Wu, X., Hashemi, S., Yao, Y., Kiumarsi, S., Liu, D., & Tang, J. (2023). How tourism stakeholders support sustainable tourism development: The case of Iran. *Sustainability*, 15(9), 7661. <https://doi.org/10.3390/su15097661>
- Yoopetch, C., Kongarchapatara, B., & Nimsai, S. (2023). Tourism forecasting using the Delphi method and implications for sustainable tourism development. *Sustainability*, 15(1), 126. <https://doi.org/10.3390/su15010126>



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