



RESEARCH ARTICLE

Community Forest Ecotourism Development In South Central Timor Regency, East Nusa Tenggara: An Investigation Of Facts And Expectations

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ABSTRACT

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The objective of this study is to identify potential and challenges associated with the management of community forest area as tourist destinations, with a particular focus on the 4A (Attraction, Amenity, Accessibility, and Ancillary) tourism products framework; and to formulate strategies for the development of community forest area as ecotourism destinations. The research method employed was an exploratory qualitative approach with case studies. The findings indicate that the community forest area possessed considerable potential as a tourist destination, particularly in the form of the 4A-based tourism products. However, there were numerous challenges associated with the management of this tourist destination. Based on the Attraction component, the existing attractions had not been effectively integrated into the tourist experience, which represented a significant opportunity for enhancement. Additionally, with regard to Amenity component, the condition of existing facilities in the community forest represented a significant impediment to its development as a tourist destination. The relatively remote location of the community forest area also presented a significant challenge in respect of Accessibility component, particularly in relation to potential markets. Lastly, a major challenge in the Ancillary component included the limited number and skill set of human resources. Further, this study highlights several strategies for the community forest ecotourism development, including regulatory harmonization, collaboration among stakeholders, development of a comprehensive master plan, and development of human resources.

INTRODUCTION

Sustainability has emerged as a central concern in tourism development, driven by growing awareness of its environmental, economic, and social impacts. Poor planning often leads to overdevelopment, where excessive infrastructure harms local ecosystems, reduces environmental carrying capacity, and ultimately diminishes tourist interest (Vazquez et al., 2021). Additionally, failing to anticipate shifts in tourist preferences can result in declining visitation, negatively affecting the destination's economic sustainability. Ensuring long-term appeal requires balancing environmental protection, economic viability, and community well-being.

Destination planning that is both thoughtful and purposeful is of critical importance in the creation of a sustainable destination. The literature in this field underscores the significance of an integrated approach to destination development. This approach should not only prioritize the generation of economic revenue, but also consider the impact on local communities and the natural environment. As posited by Benur and Bramwell (2014), the sustainability of tourist destinations depends on the

integration of physical, environmental, and socio-cultural attributes. It is essential to consider the natural conditions, such as climate and ecology, as well as the cultural values, including history, politics, art, and the way of life of local communities, in the planning of a destination. It is therefore crucial that a tourist destination is not only attractive to tourists, but also supports the long-term well-being of local communities and preserves the environment.

Furthermore, effective destination planning requires a comprehensive examination of the factors influencing supply and demand. The majority of studies on demand aspects concentrate on the development of marketing and promotional strategies with the objective of attracting a greater number of tourists to a specific destination (Mkwizu, 2020; Rahimizhian et al., 2020). However, the supply aspect, which includes elements such as infrastructure, facilities, and appealing product offerings, must also be subjected to thorough examination. An analysis of the supply aspect may include an evaluation of physical developments, such as accommodation, transportation, and sustainable tourist attractions. This will assist in determining the extent to which a destination can meet tourist expectations while maintaining the sustainability of the destination. A comprehensive assessment of supply and demand, coupled with an integrated approach to physical, environmental, and socio-cultural planning, will facilitate the creation of destinations that are not only economically successful, but also sustainable in the long term.

Prior researches on the supply aspect have frequently underscored the significance of physical development in the planning of tourist destinations. Infrastructure is regarded as a pivotal factor in the advancement of a tourist destination (Jovanoviã & Ivana, 2016; Mamirkulova et al., 2020; Yu, 2016). Conversely, other studies have elaborated the significance of nexus between infrastructure and inflow of tourists and foreign investment interest (Lim et al., 2019; Ouariti & Jebrane, 2020). The provision of transportation, accommodation, and other supporting facilities is of essential importance in enhancing the attractiveness of a destination. However, sustainable destination planning incorporates not only physical development, but also integration between physical and environmental components, including stakeholders. Benur and Bramwell (2015) emphasized the significance of integrating climatic conditions, ecology, and socio-cultural attributes in destination planning to ensure sustainability. Consequently, the creation of engaging tourism experiences represents a crucial element in the process of destination planning. The creation of this experience is closely correlated with the planning of tourism activities in the destination, with the objective of enabling tourists to enjoy activities that are not only interesting, but also relevant to the local characteristics of the destination. Furthermore, it is evident that the management of supply aspect entails the involvement of diverse stakeholders. Therefore, integrated planning is such a crucial element in the development of sustainable ecotourism destinations.

In light of the aforementioned issues, this research aims to examine the comprehensive planning of tourism products that integrate physical elements, environment, tourism activities, and stakeholders, with the objective of fostering the development of sustainable ecotourism destinations. This research employs a case study methodology to examine the development of a community forest area ecotourism in Noinbila Village, South Mollo District, Soe Regency, East Nusa Tenggara Province. In addition to agricultural and plantation products, Noinbila Village has been identified as having significant potential for tourism development. Three notable attractions are Tagepe Waterfall, Love Waterfall, and Lavender Flower Park. One indicator of this potential is the increasing number of visitors to these three destinations. In alignment with the advancement of tourism potential, Ora et Labora Farmer Group Association (*Gabungan Kelompok Tani*, Gapoktan) is attempting to transform a 314-hectare community forest area of the said land into an ecotourism destination. The strength of the region's agriculture, natural environment, and cultural heritage provide a foundation for the development of a tourism industry that integrates these assets and aligns with the principles of ecotourism. This is consistent with the view that ecotourism is typically defined as a form of responsible tourism to natural areas that offer environmental and social benefits (Pataskar, 2022; Voumard, 2019).

The 314-hectare community forest area in Noinbila Village has great potential to become a significant ecotourism destination. Despite the implementation of initiatives aimed at the development of natural tourist destinations, a number of challenges have emerged, impeding the realization of these efforts. Factors such as infrastructure, marketing, and limited knowledge about tourism are challenges that are also commonly found in other areas. Limited scientific literacy regarding the potential of tourism integrated with agriculture represents a significant obstacle that must be overcome. This factor also contributes to the absence of a clearly defined development concept, which has resulted in the facilities that have been constructed remaining unused. The availability of scientific studies on the potential of tourism attractions and agriculture can serve as a crucial basis for the development of tourism in South Mollo District, South Central Timor Regency. In light of the aforementioned issues, the following research questions are formulated: (1) What are the potential of the community forest area in Noinbila Village, South Central Timor Regency as a tourist destination based on the 4A tourism products (Attraction, Amenity, Accessibility, and Ancillary)?; (2) What are the challenges to the development of the community forest area in Noinbila Village, South Central Timor Regency as an ecotourism destination?; and (3) What are the development strategies for the community forest area in Noinbila Village, South Central Timor Regency as an ecotourism destination?

The results of this study are expected to provide insights into the significance of integrated planning in the development of sustainable tourist destinations.

LITERATURE REVIEW

The 4A-based Tourism Potential

In the field of tourism marketing, it is evident that a multitude of factors can contribute to the commercial success of a given tourist destination, leading to a high volume of visitors. The factors or variables include those pertaining to the facilities and infrastructure developed in the tourist destinations. The results of previous researches demonstrate that tourist attraction, accessibility, and amenity exert a significant, partial, and simultaneous effect on tourist loyalty (Robustin et al., 2018). The four components of tourism, which are collectively known as the 4A(s), that must be owned by a tourist destination are Attraction, Amenity, Accessibility, and Ancillary (Andrianto & Sugiama, 2016; Cooper, 2005; Rero & Sanam, 2021).

Attraction – In the context of tourism, the term “attraction” is used to describe a place or something that draws tourists to a specific destination (Suanmali, 2014). Moreover, Lascu et al. (2018) demonstrated that attractions serve as a key determinant of destination image, influencing tourist satisfaction. Tourism attractions may be defined as places and tourist activities that provide unique and unforgettable experiences for visitors (Kwortnik Jr & Thompson, 2009; Var & Gunn, 2020). Consequently, tourism attractions in the form of places (settings) encompass natural attractions, such as mountain and valley views, natural scenery and natural attractions, parks and springs, picturesque landscapes, parks, lakes, rivers, wildlife, caves, and subterranean formations. In addition, the activities also encompass entertainment and events, including performances, exhibitions, cultural events and festivals, Western musicals, and nightlife entertainment. Historical attractions, such as history, heritage, and ancient buildings, are also included (Rajesh, 2013). Tourist attractions are identified as the primary determinants of attraction, and it can be argued that tourism would not exist without them (Haneef et al., 2019). Further, tourist attractions are regarded as a crucial instrument for the competitive advantage of any tourist destination (Nahar et al., 2015). The presence of attractions has been found to have a positive effect on visitor satisfaction in tourist destinations (Biswas et al., 2020).

Amenity – An amenity is defined as a series of facilities that collectively meet the needs of those seeking accommodation, food and beverages, entertainment, shopping, and other services. Amenities are not typically considered as attractions for tourists. However, a lack of them may result in tourists avoiding certain destinations (Salam et al., 2018). Amenities are integral features of an area that facilitate access to a tourist destination, including transportation, lodging, infrastructure (such as

roads), and tourist information centers (Margaryan & Fredman, 2017). Several researchers have highlighted the significance of amenities and services in tourist destinations, underscoring their influence on the experiences sought by smart travellers (Adam et al., 2022; Wang et al., 2020).

Accessibility – In the context of tourism, accessibility can be defined as the ability to provide tourist access to a destination, including the ability to travel along the destination itself (Suanmali, 2014). However, accessibility is not merely a matter of transportation; it also encompasses the provision of information that is pertinent to tourists (Eichhorn & Buhalis, 2011). Similarly, Ghose and Johann (2018) defined accessibility as the ease with which goods, services, activities, and destinations that are desired by the community can be reached. This is contingent upon the availability, affordability, and convenience of transportation facilities, information, or the geographic distribution of activities and destinations. Accessibility constitutes a destination image attribute that affects tourist satisfaction. The development of the conceptual framework demonstrates that tourist satisfaction is directly influenced by accessibility (Rajesh, 2013). Accessibility has been demonstrated to exert a positive influence on the level of visitor satisfaction (Biswas et al., 2020).

Ancillary – Ancillary is represented by facilities found in public spaces used by tourists, such as telecommunications, automated teller machines (ATMs), security personnel, and other services. In addition, it also encompasses the presence of various organizations that facilitate and encourage the growth of tourism. The role of the ancillary is becoming increasingly evident as a growing number of researchers attempt to comprehend and elucidate the pivotal successful management practices that have been predictive of and instrumental in the development of effective business practices (Connell et al., 2015; Leask, 2016). The presence of tourism institutions that oversee the management of all facilities and the development of tourist destinations can foster a sense of security and protection for tourists. Moreover, the convenience of a tourist attraction is contingent upon the policies and management practices of local institutions. Consequently, it is recommended that tourist destination marketing managers prioritize the development of tourist loyalty as a key objective (Wu, 2016).

Challenges in Ecotourism Destination Development

Tourism destination development inevitably faces multifaceted challenges requiring systematic resolution. Research highlights governance, management, and planning deficits in Iran's ecotourism sector (Makian & Hanifezadeh, 2021), while tourism businesses globally struggle with managerial knowledge gaps, inadequate marketing, labor contractual issues, and financial barriers (Issakov et al., 2023). Challenges span global, national, regional, institutional, and individual levels, necessitating collaborative engagement from diverse stakeholders to achieve sustainability (Haid et al., 2023).

Hannonen & Prokkola, (2022) examined the challenges in tourism development and the impact of border regulations, political environment, and sociocultural cohesion on the potential for cross-border tourism. Ahmed et al. (2022) identified security and counterterrorism issues as having a negative impact on travel and tourism. Moreover, Henderson (2006) revealed that additional barriers are related to poor accessibility, a lack of conventional attractions, and limited promotion. Furthermore, another challenge to the advancement of tourist destinations is the lack of robust collaboration among entities, including businesses, destination management organizations, academic and research institutions, and civil society, and their involvement in the innovation process within these destinations (Panfiluk, 2023). Hussain et al. (2024) found that the most significant challenges to the advancement of tourist destinations are a lack of governmental engagement, constrained financial resources, and a fragmented approach to collaboration between institutions and public-private partnerships.

Ecotourism Destination Development Strategies

Bošković et al., (2013) outline key phases for assessing resources and developing strategies to enhance tourist destinations, emphasizing the need to improve transportation, accommodation, and attractions. A business system approach recognizes tourism as an industrial sector comprising diverse services. To advance destinations, innovation management systems should align with

regional strategies and funding programs, fostering collaboration among scientific, academic, and business institutions. This framework should promote knowledge exchange on customer needs and innovations, encouraging partnerships between research communities and private enterprises (Panfiluk, 2023).

A variety of strategies and models for the development of tourist destinations have been proposed and implemented by academics and practitioners. One such model is the Smart Tourism Destination Development model. The objective of this model is to illustrate the strategic trajectory that a tourism destination must pursue in order to attain the designation of a “smart tourism destination”. In light of the above, a previous research discussed the concept of smart tourism destinations and highlighted that, in addition to enhancing destination competitiveness, smart tourism destination projects should be founded upon an environmentally conscious paradigm to generate public value for the host community (Cavalheiro et al., 2020).

In the current year, the United Nations World Tourism Organization (UNWTO) has adopted the theme “Tourism and Green Investment”. This theme underscores the imperative for investments that are more congruent with the interests of people, the well-being of the planet, and the advancement of prosperity. Tourism is a potent instrument that has the potential to facilitate substantial local economic growth. However, if not managed effectively, it can also present a challenge to sustainability. In accordance with the principles of environmental sustainability, the strategy of developing tourist destinations with an emphasis on nature conservation, or ecotourism, represents a promising approach for the creation of nature-based tourist destinations.

Wondirad et al. (2020) observed that the term “ecotourism” is defined in a variety of ways, resulting in numerous definitions in the literature. Ceballos-Lascurain is widely acknowledged for his contribution to the field, namely the earliest definition of ecotourism (Blamey, 2001). Ceballos-Lascurain, the individual responsible for coining the term “ecotourism”, once stated: “The primary benefit of ecotourism is that it provides an opportunity for immersion in nature that is not typically available to most individuals in their daily urban lives. This individual will eventually gain an awareness and knowledge of the natural environment, along with its cultural aspects, that will result in their becoming deeply involved in conservation issues” (Sander, 2010). As the originator of the concept of ecotourism, Ceballos-Lascurain’s definition can be critiqued for failing to acknowledge the conservation and economic benefits of ecotourism, as subsequently elaborated upon. The various definitions of ecotourism, as interpreted by these experts, can be seen to be inextricably linked to three key criteria: (1) the attractions in question are predominantly nature-based, (2) visitor interactions with these attractions should be focused on learning or education, and (3) experiences and product management should adhere to principles and practices related to ecological, socio-cultural, and economic sustainability (Gale & Hill, 2016).

Ecotourism is not a mere sales pitch for a destination; rather, it is an espousal of a philosophy. Hetzer (1965) employed analogous terminology when he introduced four principles of responsible tourism, namely minimizing environmental impact, respecting local culture, maximizing benefits for local communities, and maximizing tourist satisfaction (Blamey, 2001). This is corroborated by a study indicating that ecotourism can mitigate the detrimental consequences of tourism development. Thus far, at least the implementation of ecotourism has demonstrated the potential to reconcile environmental conservation with the economic necessities of the community (Wahono et al., 2019).

Theoretically, ecotourism and conservation development can be viewed as complementary concepts; however, in practice, ecotourism-conservation conflicts are a significant concern in protected areas. These conflicts can be attributed to various challenges, including low levels of education and awareness, limited community participation, unequal distribution of benefits and costs, inadequate sustainable funding, and other environmental pressures associated with population growth (Aseres & Sira, 2021). It is imperative that these challenges be addressed during the development of a tourist destination, particularly one that adheres to an ecotourism model. The findings elucidate the persistent conflict and ongoing symbiosis between ecotourism and conservation, underscoring the

necessity for prompt policy interventions, particularly to integrate ecotourism principles and practices with neoliberal conservation approaches.

METHODS

The case study method was employed to investigate the subject matter. A case study is defined as an empirical investigation that examines contemporary phenomena within their real-life contexts (Yin, 2014). Meanwhile, Groat and Wang (2013) advanced the understanding of case studies for architectural research by transforming it into an empirical investigation that examines a phenomenon.

The subject of this study was the managers of community forest in Noinbila Village, South Central Timor Regency, East Nusa Tenggara Province. The following Table 1 presents research informants of this study:

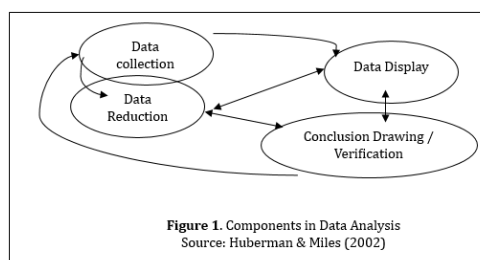
Table1. Informant Profile

No.	Name	Gender	Job Position / Role	Code
1.	Frans A.B. Fobia, S.Hut	Male	Head of Technical Implementation Unit) of Forest Management of South Central Timor Regency, Environment and Forestry Service of East Nusa Tenggara Province	A1
2.	Christian L.E. Koenunu, S.Hut	Male	Forest Planning and Management Section of Forest Management UPT of South Central Timor Regency, Environment and Forestry Service of East Nusa Tenggara Province	A2
3.	Sem Benu	Male	Tafena Munif Kuan Foundation	B1
4.	Petrus	Male	Tafena Munif Kuan Foundation	B2
5.	Krisostomus Sianto	Male	Tafena Munif Kuan Foundation	B3
6.	Dorince Ufi	Female	Chairman of Ora et Labora Gapoktan	C1
7.	Enny	Female	Community member (Gapoktan member)	C2

Source: Processed data (2024)

The data collection techniques employed in this study included in-depth interviews (IDIs), focus group discussions (FGDs), and observation. The observation method facilitates a more profound comprehension of the essence of empirical visual data collection in research, enabling the monitoring of the dynamics of development and activity of objects, processes, and events (Gurbanzade, 2018).

In this study, data analysis was conducted using a qualitative data analysis model. Qualitative analysis is the process of applying logical research methods to systematically compress, display, and verify data with the aim of obtaining useful information and making research conclusions. The data analysis activities in this study were conducted using the Miles and Huberman model, which comprises the following stages: data reduction, data display, and conclusion drawing or verification (Huberman & Miles, 2002). The aforementioned activities are illustrated in the following figure:



RESULTS AND DISCUSSION

Profile of Community Forest Area

South Central Timor Regency is located in the province of East Nusa Tenggara in Indonesia. Its capital is the city of Soe. From a geographical standpoint, this area is situated at the following coordinates: 120°4'00"-124°49'0" East Longitude and 9°28'13" LS - 10°10'26" South Latitude. The regency is traversed by the state road network, which connects Kupang City with Atambua City (Belu Regency) and even with neighboring Timor-Leste. According to data from Statistics Indonesia for the year 2023, the regency had a population of 475,346 individuals, with a population density of 120 people per square kilometer. This regency is divided into 32 districts, comprising 228 villages and 12 sub-districts. The district with the largest area is South Amanuban, which encompasses 326.01 km² (8.24%) of the total area. In contrast, the district with the smallest area is Soe City, which covers 28.08 km² (0.71%). The district's name was derived from the Dutch colonial administrative area of Zuid Midden Timor, which encompassed three kingdoms: Amanatun, Amanuban, and Mollo.

The lowest temperature in South Central Timor Regency can reach 15°C, with the highest reaching 34°C. However, the humidity is relatively low, ranging between 72% and 89%. In 2023, the greatest number of days with precipitation occurred in December, with 27 days of rainfall in a single month in Kupang City, the most proximate urban center to South Central Timor Regency. Meanwhile, the highest precipitation intensity was observed in February, with a total rainfall of 646.5 mm. The topographical conditions of South Central Timor Regency are characterized by a diverse range of terrain, encompassing mountainous areas, highlands, lowlands, and coastal regions.

South Mollo District is situated in the central region of Timor Island, this district encompasses an area of 147.18 km², representing approximately 3.72% of the total area of South Central Timor Regency. Given the relatively limited area, South Mollo District is divided into seven villages, each of which exhibits distinctive geographical and demographic characteristics. The villages in this district are Bikekno, Biloto, Bisene, Kesetnana, Noinbila, Oinlasi, and Tuasene, with Siso serving as the administrative center for the district. Noinbila Village exhibits nascent tourism attractions, largely attributable to its natural splendour and distinctive local culture.

Based on the climatic data, the ecotourism site experienced low humidity, low temperatures, and relatively high wind speeds. The cool climate characteristics might serve as a tourist attraction, as they diverged from the temperatures observed in regions outside of South Central Timor Regency, which typically ranged above 30°C. The area's topography presented a compelling attraction for tourists, offering a diverse range of landscapes. These included lowlands, which featured picturesque beaches, and highlands with savannas. Further, the village had a serene atmosphere and an abundance of forest areas, which were gradually drawing in visitors from neighboring regions. Furthermore, locations with historical and cultural significance could serve as additional attractions for tourism development.



Figure 2. Location Map of South Mollo District

Source:

[https://upload.wikimedia.org/wikipedia/commons/0/0b/Peta Timor Barat Kabupaten dan Kecamatan.png](https://upload.wikimedia.org/wikipedia/commons/0/0b/Peta_Timor_Barat_Kabupaten_dan_Kecamatan.png)

A Portrait of Tourism Destination Potential

Attraction-based Potential

The term “attraction” was used to describe a place or feature that motivated tourists to visit a particular destination. The concept of attraction served as a key determinant of destination image, which in turn affected tourist satisfaction. Such attractions encompassed natural phenomena, including mountain and valley views, natural scenery, parks and springs, scenic views, parks, lakes, rivers, wildlife, caves, and subterranean formations. The Noinbila’s community forest area exhibits significant potential, both in terms of its forest resources and the biodiversity of wildlife it supports. Informant A1 posited that:

“...Furthermore, the forest area serves as a breeding ground for Timor deer. The forest area also contains a significant population of the rare sandalwood tree, which is therefore included in the conservation object...”

In addition to the insights provided by Informant A1, the 314-hectare community forest area demonstrates potential for agricultural tourism, as local farmers cultivate a diverse range of agricultural commodities that could serve as attractions for prospective visitors. Informant C1 explains as follows:

“The commodities produced include timber, corn, vegetables, chili, tomatoes, beans, and carrots. The constraints imposed on agricultural activities include a lack of water. After finally entering the location yesterday, we returned and are now working together. Further, in terms of fruit commodities, there are oranges, avocados, candlenuts, cashews, areca nuts, betel nuts, coconuts, and mangoes.”

Based on the findings of the observations, other potential tourist attractions were identified, including the presence of eucalyptus trees, mahogany forests, and sandalwood trees. The area encompasses several reservoirs, including the Nifu Koko reservoir, which is notable for its scenic features such as pine forests, sandalwood trees, and a temperate climate, contributing to both its aesthetic appeal and recreational potential within the surrounding landscape.



Figure 3. Attraction Component: Eucalyptus trees, mahogany wood forests and sandalwood trees that are perennials in the community forest area.

Source: Empirical Image from Researcher Observations (2024)



Figure 4. Attraction Component: Timor deer breeding, reservoir, and forest areas.

Source: Empirical Image from Researcher Observations (2024)

In addition to the inherent potential of the area, there was also the possibility of developing a tourism destination which combines nature and culture-based resources at the local community level. This was identified from interviews with Informant C1 and Informant B3, who explained that:

"The local community has a distinctive cultural tradition, namely Maekat dance and Oko Mama dance."

"Furthermore, woven fabrics are produced, though the sheer number of varieties is considerable. To illustrate, the motif is distinct from that of Mama [mother], which may be regarded as ordinary. The king's own motif is distinct. The motif itself is distinct from that of the helper. Yet, this particular phenomenon has largely receded. For example, upon observing a blanket in a given village, one can ascertain the familial and clan affiliations of the person in question. The region of origin can also be discerned from the motif."

"In the past, traditional rituals were performed when traditional leaders, in this case the 'katong', sought to request rain. Meanwhile, 'natonu' is a relatively uncommon occurrence. To illustrate, the 'katong' has performed a cultural and customary practice this month."

The two informants proceeded to discuss a number of local specialties as follows:

"The local cuisine features traditional dishes, such as corn porridge and 'bose' corn. Additionally, there is 'katemak' corn, a hard variety of corn, and also 'titi' corn."

Based on the findings of the interviews and field observations, it can be concluded that the Attraction component exhibits potential for tourism development. The summary can be seen in the following Table 2:

Table 2. Attraction-based Tourism Products

No.	Potential Source	Description
1.	Nature / environment	<ul style="list-style-type: none"> • Land area: 314 hectares • Agricultural commodities: vegetables • Plantation commodities: avocado, orange, candlenut, and cashews • Conservative plants: Eucalyptus, Mahogany, and Sandalwood • Reservoirs • Fauna: Timor deer breeding
2.	Local community culture	<ul style="list-style-type: none"> • Local dances: Maekat dance and Oko Mama dance • Traditional villages • Local weaving crafts • Traditional rituals • Corn-based specialties: corn porridge, <i>bose</i> corn, <i>katemak</i> corn, and <i>titi</i> corn
3.	Historical sites	<ul style="list-style-type: none"> • Ruins of traditional monument
4.	Tourism activities	<ul style="list-style-type: none"> • Taking pictures in the Mahogany forest • Picnic at Nifu Koko Reservoir

Source: Empirical Research Results by Researchers (2024)

The results of the analysis indicate that the tourism products in question possessed the potential to serve as distinctive attractions, a quality that distinguished them from other tourist destinations. Such an attraction had the potential to satisfy tourists. This is consistent with the findings of (Lascu et al., 2018), who posited that attractions served as a key determinant of destination image and subsequently influenced tourist satisfaction. The natural potential of the community forest area in South Central Timor Regency, East Nusa Tenggara was considerable, encompassing a vast 314-hectare expanse and the presence of environmentally friendly energy sources. The region was also endowed with wind, agricultural commodities, particularly vegetables, and plantation commodities, including avocados, oranges, candlenuts, and cashews. The presence of conservative flora, including eucalyptus, mahogany, and sandalwood, and the availability of Nifu Koko reservoir which was home to a variety of fauna, including Timor deer breeding grounds. This finding is also consistent with the opinion of Lascu et al. (2018).

Beyond its natural potential, the forest area is enriched by the indigenous communities' cultural heritage and local wisdom, including traditional dances (e.g., Maekat, Oko Mama), rituals, weaving crafts, historic villages, and corn-based specialties like bese and titi corn. This aligns with Rajesh (2013), who emphasizes cultural attractions (festivals, performances) and historical sites as vital draws for tourism.

The sufficient availability of resources in the Attraction component of the community forest area in South Central Timor Regency, East Nusa Tenggara, could serve as an attractive feature for tourists, thereby becoming a primary capital in the development of the forest area as a tourist destination with an ecotourism concept. This was corroborated by a number of studies which revealed that tourist attractions were the primary determinants of destination appeal and that tourism would not exist in the absence of them (Haneef et al., 2019). Tourist attractions were regarded as a crucial asset and a competitive advantage for any tourist destination (Nahar et al., 2015). The presence of attractions had been demonstrated to positively influence visitor satisfaction in tourist destinations (Biswas et al., 2020).

In addition to natural attractions, the region offers potential for enhanced tourism experiences. The mahogany forest attracts photography enthusiasts for pre-wedding shoots, selfies, and other sessions, while Nifu Koko reservoir supports recreational activities like enjoying the scenery and cool air with food and drinks. However, relying solely on photography and leisure is insufficient to create a memorable and unique experience (Kwortnik Jr & Thompson, 2009; Var & Gunn, 2020). To enhance appeal and ensure sustainability, diversifying tourism activities is essential (Cavalheiro et al., 2020).

Amenity-based Potential

The Amenity component encompassed a range of facilities designed to meet the needs of those seeking accommodation, including lodging, food and beverage provision, entertainment facilities, shopping facilities, and other services. Amenities were integral features of an area that facilitated access to tourist destinations, including transportation, lodging, infrastructure (such as roads), and tourist information centers. A review of the available evidence indicated the presence of a building complex within the community forest area that was originally utilized as an educational and training center. However, the complex was currently not operational and appeared to be in a state of disrepair. In this regard, Informant B3 stated that:

“Initially, the management authority was situated within one of the Provincial Environment and Forestry Office’s constituent fields. However, due to shifts in the authority of the managing field, all activities were subsequently delegated to the Ministry of Environment and Forestry. This resulted in a loss of clarity regarding the management authority, as it was now directly overseen by the central government. As a consequence, the Training Center was unable to function effectively.”

Furthermore, the community forest area also encompassed the Bu'at recreation park, which was still operational but exhibited a lack of maintenance. The area offered a variety of amenities, including a playground, a walking trail for visitors, a *lopo* (a traditional structure serving as a rest point), restrooms, and a habitat for monkeys and deer. However, these facilities are typically in a state of disrepair or damage.

In particular, the area in the vicinity of Nifu Koko reservoir comprised a number of ancillary facilities, albeit in a state of considerable disrepair and lacking in adequate maintenance. A single toilet building comprised two separate toilet rooms, as illustrated in Figure 5. The structure remained intact, yet it was subject to neglect and infrequently utilized, largely due to the malfunctioning door and the unavailability of water. Additionally, the reservoir area contained a circular seating facility with a central planting of small trees. It was presumed that this facility was designed with the intention of serving as a place of rest, a gathering point, or a location for group activities. The circular seating arrangement suggested that this area might have been designed for activities involving a campfire. However, the current state of disrepair made it impossible to determine the original purpose of this area, except that it was intended for seating. Two gazebos were situated on the side of the pond. They were also in a state of disrepair. The gazebos were of a considerable size and could accommodate several individuals. Additionally, a modest structure with a thatched roof, supported by a wooden beam, was present on the site. The shelter contained a mere two seats, crafted from cut logs.



Figure 5. Facilities in Nifu Koko Reservoir

Source: Empirical Image from Researcher Observations (2024)

In addition to the facilities located within the community forest area, there were other facilities situated in the surrounding region that were not too distant and could be reached with relative ease. In addition, a variety of lodging, dining, and other facilities were available in Soe City. The following Table 3 illustrates the availability of Amenity component in and around the community forest area:

Table 3. Amenity-based Tourism Products

No.	Potential Source	Description
1.	Lodging	Poorly maintained lodging facilities at training and education centers Homestay Hotels around the community forest area (in Soe City)
2.	Food and beverage provision	Restaurants
3.	Entertainment facilities	Poorly maintained parks and playgrounds Poorly maintained gazebos Poorly maintained toilets Poorly maintained circular seating

4.	Shopping facilities	Traditional market Modern shops around the forest area
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Source: Empirical Research Results by Researchers (2024)

The community forest area in South Central Timor Regency, East Nusa Tenggara, offered a range of facilities. In this regard, Margaryan & Fredman, (2017) stated that amenities were integral features of an area that facilitated access to the region, including transportation, lodging, infrastructure (such as roads), and tourist information centers that assisted visitors in accessing a tourist destination. The results of this study indicated the presence of several facilities, including lodging, food and beverage provision, entertainment facilities, and shopping facilities. Despite this, it appeared that the Amenity component was not yet fully adequate. Therefore, efforts to enhance the quality and management of this resource must be sustained. Furthermore Salam et al., (2018) also stated that the presence of amenities did not necessarily act as a draw for tourists. However, the absence of facilities might result in tourists avoiding certain destinations.

Accessibility-based Potential

The term “accessibility” was defined as the ease with which a community could reach desired goods, services, activities, and destinations. This was contingent upon the availability, affordability, and convenience of transportation facilities, information, or the geographic distribution of activities and destinations. The attribute of accessibility, as it pertained to a destination, had been demonstrated to influence the level of satisfaction experienced by tourists.

The road conditions in South Mollo District were favorable, with a provincial road that connected the capital of East Nusa Tenggara, Kupang City, to Soe City. The route was traversed by a paved and relatively broad road, yet the topography necessitated a winding and predominantly uphill trajectory. The route from Soe City to the community forest area was generally well-maintained, with only a few instances of damage to the road surface. The road was also relatively flat, which made it safe for visitors.

Table 4. Accessibility-based Tourism Products

No.	Potential Source	Description
1.	Transportation	<ul style="list-style-type: none"> • Private-two wheeled or four-wheeled vehicles • Local motorcycle taxi service • Four-wheeled vehicle rental
2.	Roads	<ul style="list-style-type: none"> • Regency government roads • Village roads
3.	Distance (from urban centers)	<ul style="list-style-type: none"> • ± 111 km from the Provincial Capital, Kupang City with a travel time of 2.5 hours • ± 4 km from the center of Soe City with a travel time of 8 minutes
4.	Information center	<ul style="list-style-type: none"> • Reviews / posts from visitors on social media • Online news

Source: Empirical Research Results by Researchers (2024)

The route to the development area was relatively inexpensive, with an approximate distance of 4 kilometers from Soe City. The area could be reached by private vehicles, including two- and four-wheeled options. It should be noted that there was no public transportation available to the community forest area. Nevertheless, this area could be accessed via local motorcycle taxi services or by hiring a four-wheeled vehicle.

As previously stated, the Accessibility component pertained to the ease of reaching goods, services, activities, and destinations that were desired by the community. This encompassed the availability,

affordability, and convenience of transportation facilities, information, or the geographic distribution of activities and destinations (Ghose & Johann, 2018). Transportation facilities were available in the form of private two-wheeled or four-wheeled vehicles, local motorcycle taxi services, and four-wheeled vehicle rental. Furthermore, the local government was responsible for the provision and management of road facilities. Additionally, the destination was situated at a relatively moderate distance from the city center. Ultimately, information was disseminated through the medium of social media, whereby visitors to the destination left reviews and posts on social media, as well as through online news sources.

Ancillary-based Potential

In addition, the Ancillary component encompassed the presence of various organizations that facilitated and encouraged tourism development. The role of ancillary institutions was becoming increasingly evident as a growing number of researchers attempted to comprehend and disseminate the pivotal successful management practices that had predicted and contributed to effective business practices (Connell et al., 2015; Leask, 2016). The presence of tourism institutions (ancillary) that oversaw the management of all facilities and the development of tourist destinations could foster a sense of security and protection for tourists.

In the context of community forest management, Ora et labora Gapoktan played a pivotal role. Four farmer groups had been granted rights to manage the community forests. Informant C1 provided an overview of the Gapoktan as follows:

“Since 2010, the formation of numerous farmer groups has been a key objective. The establishment of the Gapoktan was completed on November 11, 2021. The Gapoktan is comprised of four farmer groups. The aforementioned groups are the Tupleu Farmer Group, the Bisuaf Farmer Group, the Nemolo Farmer Group, and the Sejati Neteneus Farmer Group. Meanwhile, the membership of Ora et Labora Gapoktan comprises 60 households.”

Gapoktan had been granted authorization to oversee the management of the 314-hectare area in accordance with SK 6934. In order to facilitate the management of the aforementioned area, Gapoktan had entered into a collaborative partnership with the Tavena Munif Kwan Foundation. The supervision and guidance of this initiative was overseen by the UPT of Ministry of Environment and Forestry. Ora et Labora Gapoktan had a well-established organizational structure, with responsibility for the management of agriculture and ecotourism. The cultivation of vegetables was one of the agricultural activities undertaken. The flora of the area included woody plants, corn, chili, tomatoes, beans, and carrots. Given that its membership was predominantly comprised of individuals with an agricultural background, Ora et Labora Gapoktan had limited capacity to effectively manage ecotourism.

Ora et Labora Gapoktan was closely affiliated with Tafena Munif Kuan Foundation. The foundation played a pivotal role in this context, as it was the determining factor that enabled the Gapoktan to obtain the requisite authorization from the government to oversee the management of this community forest. As elucidated by informant C1, one of the prerequisites for Gapoktan to procure management privileges from the ministry was to collaborate with external entities. In this context, Tafena Munif Kuan Foundation assumed the role of an external party. However, the primary challenge lied in the fact that following the transfer of community forest management to Gapoktan in conjunction with Tafena Munif Kuan Foundation, the government had stipulated the necessity for specific activities to be undertaken during the initial two-year period. In the absence of tangible activities, the consequence would be the revocation of the forest management license by the Ministry.

Similarly, Tafena Munif Kuan Foundation was constrained by a paucity of human resources for the role of tourism destination planners or developers, a limitation that was analogous to that experienced by Ora et Labora Gapoktan. Conversely, these two parties were required to demonstrate genuine activities within this community forest to prevent the revocation of the management permit.

The aforementioned human resource limitations were elucidated with greater clarity by Informant B3, who stated that:

“The organization is constrained by limitations in human resources and assistance. Consequently, due to the limited budgetary resources available for forestry initiatives, the group was ultimately compelled to relinquish its proposed direction. Therefore, it is evident that there is a necessity for further resources. In addition, there is also a necessity for external assistance in order to facilitate change and alter the prevailing mindset. This is, in essence, the reality of the situation.”

In order to ensure the long-term sustainability of community forest management rights and to enhance forest productivity, which in turn could improve community welfare, it was necessary to provide external support in the form of mentoring or other assistance.

Table 5. Ancillary-based Tourism Products

No.	Potential Source	Description
1.	Management	Tafena Munif Kuan Foundation
2.	Regulatory support	Decree of the Minister of Environment and Forestry of the Republic of Indonesia of Number 6934/MENLHK-PSKL/PKPS/PSL.0/11/2021
3.	Government support	<ul style="list-style-type: none"> • Tourism Office, Regional Government of South Central Timor Regency • UPT of Forest Management Unit of South Central Timor Regency, Environment and Forestry Service of East Nusa Tenggara Province
4.	Community support	Ora et Labora Gapoktan

Source: Empirical Research Results by Researchers (2024)

In this case, the government's role was to provide legal recognition to Ora et Labora Gapoktan through the issuance of SK.6934/MENLHK-PSKL/FKPS/PSL.0/11/2021. This document concerns the granting of community forest management approval to Ora et Labora Gapoktan, covering an area of over 314 hectares in a limited production forest area in Noinbila Village, South Mollo District, South Central Timor Regency, East Nusa Tenggara Province. Subsequently, the Provincial Environment and Forestry Service provided guidance through the UPT of Forest Management of South Central Timor Regency. Furthermore, the agency put forth a proposal regarding the management of the forest. As a requisite condition, the involvement of a third party was necessary. In this case, Tavena Munif Kwan Foundation was engaged as a collaborative partner.

The Ancillary component encompassed the availability of institutions and stakeholders that supported a tourist destination. The role of the ancillary was becoming increasingly evident as an increasing number of researchers sought to comprehend and communicate significant successful management practices that had been predictive of and contributory to effective business practices (Connell et al., 2015; Leask, 2016). The results of the identification process indicated that some of the Ancillary components that were available included management, regulatory support, government support, and the support of the community residing in the tourist destination area, namely Ora et Labora Gapoktan.

Challenges in Developing Ecotourism in Community Forest Area

The development of community forests as tourist destinations was confronted with a multitude of challenges and obstacles from a variety of perspectives, particularly with regard to the tourism product components, including Attraction, Amenity, Accessibility, and Ancillary. One of the primary challenges in the development of community forests as tourist destinations was their inherent natural attractiveness. Despite the considerable appeal of these forest areas, including their natural beauty and biodiversity, the lack of attractive tourism activities for visitors presented a significant

challenge. The existing attractions had not been effectively integrated into the tourism experience, resulting in a lack of diversity and organization in the offerings available to tourists. Furthermore, there was a lack of clear connectivity between existing points of interest within the forest. For instance, while visitors might be able to identify some intriguing natural phenomena, the absence of well-defined trails or an integrated tourism program hindered the full realization of these attractions. As a result, the forest was unable to compete with other tourist destinations that were more effectively organized.

From an Amenity perspective, the condition of existing facilities in the community forest represented a significant impediment to its development as a tourist destination. The facilities available were typically in a state of disrepair, which deterred visitors and hindered the potential for this destination to flourish as a tourist attraction. Furthermore, the concept of developing physical facilities in this forest area was unclear, resulting in the existing facilities failing to meet the expected tourism standards. A significant number of facilities required either refurbishment or reconstruction in order to meet the needs of visitors, including toilets, rest areas, and dining establishments. In the absence of adequate amenities, visitors were unlikely to feel at ease, which might ultimately result in a reduction in the number of tourist visits.

In terms of Accessibility, the relatively considerable distance of community forests from potential markets represented a significant challenge. The forest's remote location, situated at a considerable distance from urban centres and popular tourist destinations, necessitated a lengthy and potentially arduous journey for visitors to reach the area. In addition, the lack of adequate transportation infrastructure, such as poor road access, represented a further obstacle to the attraction of tourists. The construction of improved access routes, such as the establishment of suitable road infrastructure and the implementation of more efficient transportation solutions, was essential to enhance the affordability of forests as tourist destinations. In the absence of adequate accessibility, it was unlikely that potential attractions and facilities would be able to attract a significant number of visitors.

From an Ancillary perspective, Ora et Labora Gapoktan, the designated management authority, was confronted with the challenge of overseeing the operations of a 314-hectare tourist area within a specified timeframe. This was a challenging task, as it required managers to possess an adequate number and a suitable combination of human resources skills. With regard to the availability of human resources, it was notable that a considerable number of young people from the region opted to migrate elsewhere. This situation was elucidated by Informant C2, who stated:

"Young people are inclined to pursue employment opportunities abroad as migrant workers, rather than remaining in their villages and engaging in agricultural or livestock-raising activities."

Apart from the number, the capacity of human resources who had a background in tourism knowledge and skills could be considered highly inadequate. Informant C1 described this situation by stating that:

"We do not know the system of goods. I gave the permission for the development of ecotourism destination, but we actually did not know where the place was, neither the facilities, designers, and etc."

As a result, there was no clear planning concept which resulted in the inability to manage the community forest area. A further consequence was that, as explained earlier, the facilities that had been built without a clear planning concept ended up in an unmaintained or even damaged condition.

Further, due to their limited numbers and capacity in tourism, the Gapoktan were in dire need of external assistance to assist and direct them in planning and managing the tourism area. Informant B3 underscored this problem by stating that:

“We are experiencing limitations in human resources, and also limitations in assistance. We need more hands from outside to intervene to assist and change their mindset. That is what is actually happening now.”

Informant C1 further emphasized the same issue:

“The problem is that we received no assistance. That is why we now need assistance from external stakeholders, because our internal team cannot.”

This need was in line with Qin, Wall and Liu (2011) who stated that local communities still needed intervention or assistance from external stakeholders in developing and managing tourism destinations.

The next challenge faced by the community forest area manager was the lack of support from relevant stakeholders, particularly in terms of financial resources. Given their background as a farmer, Ora et Labora Gapoktan had limited financial resources at their disposal, which constrained their ability to develop the community forest area as a tourist destination. External stakeholders had provided only minimal financial assistance. The paucity of funding had constrained the scope for physical development and maintenance. The involvement of investors could prove an effective means of addressing this requirement.

Table 6. Summary of Challenges in Developing Ecotourism in Community Forest Area

No.	Component	Challenges
1.	Attraction	The potential attractions are not effectively integrated into the tourism experience, resulting in a lack of diversity and organization in the offerings available to tourists.
2.	Amenity	The condition of existing facilities in the community forest area represents a significant impediment to their development as a tourist destination.
3.	Accessibility	The relative distance of community forest area from potential markets represents a significant challenge. The community forest area's remote location, situated at a considerable distance from urban centres and popular tourist destinations, necessitates a lengthy and potentially arduous journey for visitors to reach the area.
4.	Ancillary	The number of human resources available is limited, as are their skills. With regard to the availability of human resources, a considerable number of young people in the region opt to migrate to other regions.

Source: Empirical Research Results by Researchers (2024)

Strategies in Developing Ecotourism in Community Forest Area

In light of the challenges that had been identified, the development of community forest area required the implementation of an appropriate development model to ensure its long-term sustainability and success. In alignment with this objective, the development of the forest area as an ecotourism destination should not only prioritize the promotion of environmental conservation, but also aim to generate economic benefits for the local community. In this case, Informant C1, one of the community forest managers, demonstrated a noteworthy capacity for proposing innovative approaches to the management of this area:

“The intention is to develop an ecotourism project through the planting of woody plants using horticultural techniques. In addition, the construction of a homestay and a small pavilion is a possibility. Ecotourism was my input, but I am unsure of the optimal location.”

This statement demonstrates that although a comprehensive vision for the planned activities had been established, the optimal location for their implementation remained undetermined.

In addition to the natural aspects of a region, the cultural dimension of the local community was also an important element in the development of ecotourism destinations in the community forest area. Informant B3 underscored the significance of integrating local cultural heritage into ecotourism planning, particularly by underscoring the historical and cultural significance of the three *swapraja* in the region. In the course of the interview, informant B3 stated:

“In my estimation, this area offers a number of notable locations, including the three swapraja, which originated from Amanatu, Amanuban, and Mollo. The king of Mollo is distinct from the king of Amanatu, who is distinct from the king of Amanuban. I believe there should be one area within the location that is constructed by the traditional village, particularly in Mollo Traditional Village.”

This concept underlined the significance of incorporating local cultural elements into the framework of ecotourism, wherein visitors could directly engage with the region’s traditional way of life and historical heritage. Consequently, the development of ecotourism destinations in the community forest area was not solely oriented towards the conservation of natural resources, but also encompassed the preservation of cultural heritage.

In order to achieve sustainable ecotourism development, it was essential to address the fundamental challenges through the implementation of basic principles, including regulatory harmonization, collaboration among stakeholders, development of a comprehensive master plan, and development of human resources. It was crucial to harmonize regulations in order to ensure that area management remained aligned with government policies pertaining to conservation and social forestry. Furthermore, it was essential to establish a robust collaborative framework involving diverse stakeholders, including local communities, government entities, and business partners, to ensure optimal synergy in the development of this destination. Ultimately, the development of a comprehensive master plan was essential for guiding the strategic direction of tourist destinations. This plan should encompass spatial planning, facility management, and the creation of attractions and tourist attractions that aligned with the principles of ecotourism. The implementation of these three principles presented a significant opportunity for the community forest area to become sustainable ecotourism destinations, thereby conferring economic, social, and environmental benefits upon the local communities.

Regulatory Harmonization

The Provincial Environment and Forestry Office submitted a Community Forest Management Proposal to Ora et Labora Gapoktan for consideration by the Ministry of Environment and Forestry. In accordance with the aforementioned proposal, the Ministry of Environment and Forestry issued Decree Number 6934/MENLHK-PSKL/PKPS/PSL.0/11/2021, which granted Ora et Labora Gapoktan the authority to approve the management of 314 hectares of community forest. This encompassed the utilization of area, environmental services, non-timber forest products, and timber forest products collection.

It was incumbent upon the local government and all other relevant parties to adhere to the stipulations set forth in these regulations. Any individual or entity seeking to undertake activities within the designated area was required to obtain the necessary approval from Ora et Labora Gapoktan. The authority granted to Ora et Labora Gapoktan was based on regulations issued by the Ministry of Environment and Forestry. However, discrepancies might arise between this authority and regional regulations. For instance, the local government collected levies on the Bu’at tourism objects within the designated area, as stipulated in the Minister’s decision.

Collaboration among Stakeholders

In the context of community forest management, a number of stakeholders played a pivotal role in promoting environmental sustainability and local economic empowerment. In this context, collaboration among various stakeholders was the primary factor contributing to the success of forest management. Ora et Labora Gapoktan, which had obtained forest management rights,

represented a key stakeholder in the management of the forest. Any activities undertaken on the 314 hectares of community forest must be conducted with the express permission of the aforementioned Gapoktan. Ora et Labora Gapoktan was the principal entity charged with responsibility for the forest area.

Another key stakeholder in the forest management was the Regional UPT of Forestry and Environment (*UPT Daerah Kehutanan dan Lingkungan Hidup*, UPTD KLH) in East Nusa Tenggara Province. The UPTD KLH served as a government institution, providing guidance and supervision on matters pertaining to the forest management. This role was of great consequence, as it ensured that the forest management was conducted in accordance with the principles of sustainability, from an environmental, social, and economic perspective. The UPTD KLH was empowered to assess and evaluate the management plan developed by the Gapoktan, as well as to provide technical guidance regarding the implementation of the plan.

In addition to its role in government, Ora et Labora Gapoktan also worked with the Tananua Maumere Foundation (YTM), a non-governmental organization involved in providing assistance to Gapoktan members. YTM bore the responsibility of providing technical and managerial assistance to Gapoktan, particularly in regard to the planning and implementation of community-based forest management programs. The objective of this assistance was twofold: firstly, to enhance the capabilities of Gapoktan members, and secondly, to guarantee that the forest management adhered to the tenets of sustainable and inclusive social forestry.

In regard to the commercialization of forest products, collaboration with external entities could be facilitated through a partnership framework in business development. This collaborative approach differed from the conventional concept of land leasing, which was often oriented towards immediate financial gain and frequently neglected social and environmental considerations. By establishing partnerships, business development could be pursued in a comprehensive manner, with due consideration given to the principles of sustainability and the long-term implications for local communities. This approach also presented opportunities for the Gapoktan to expand the marketing network for forest products and develop the community forest area as tourist destinations that could provide added economic value.

In its capacity as a manager, the Gapoktan was obliged to produce a series of crucial documents, including a forest management plan, a business work plan, and an annual work plan. It was imperative that these documents be prepared in a systematic and exhaustive manner and that they be submitted for periodic review by the relevant authorities, with a view to facilitating evaluation and providing guidance as needed. However, due to the limited capacity and resources of Gapoktan, they frequently encountered challenges in preparing these documents. Accordingly, the Gapoktan was entitled to receive assistance in the preparation of social forestry management plans, business work plans, and annual work plans. The assistance provided encompassed a range of areas, including the utilization of community forest area for commercial purposes and the development of community forest area as tourist destinations.

The development of community forest area as tourist destinations represented a strategic opportunity for the Gapoktan to enhance the economic value of the forests they managed. Nevertheless, the realization of this objective necessitated meticulous planning and harmonious collaboration among diverse stakeholders. It was imperative that the government, assisting institutions, and business partners collaborated to develop a comprehensive and sustainable development plan. This plan must ensure that the potential of forest tourism was optimally utilized without damaging the existing ecosystem.

It seemed reasonable to posit that the success of this community-based forest management initiative would depend on the extent to which Ora et Labora Gapoktan was able to foster productive collaboration with a range of stakeholders. The establishment of a collaborative framework between the government, assisting institutions, and business partners was essential to ensure that each party had a clearly defined role and provided mutual support. The success of this forest management

initiative was contingent upon the concerted efforts of all stakeholders, with the overarching objective of promoting local community welfare while safeguarding the environment.

It was therefore important to recognize the significance of collaborative efforts among the stakeholders engaged in the forest management. Each stakeholder played a pivotal role in maintaining a balance between the economic utilization of forests and the preservation of natural resources. If this collaboration was successful, then the community-based forest management might serve as an effective model for achieving the goals of environmental sustainability and broader social welfare.

Development of a Comprehensive Master Plan

The management and utilization of the 314-hectare plot of land in question had yet to be planned by Ora et Labora Gapoktan. Despite the fact that management rights had been granted, neither the Gapoktan nor the relevant stakeholders had developed a comprehensive plan to fully optimize the potential of the land. As a consequence, the full potential of the community forest area remained untapped. The absence of a strategic plan had resulted in a lack of progress in the development of the area, which should be transformed into a productive area in terms of both the economy and the environment.

Since the land management authority was granted in 2021, there had been no notable activities conducted within the community forest area. The five-year tenure with periodic evaluations should provide Ora et Labora Gapoktan with the opportunity to implement strategic measures for the management of this forest area. Nevertheless, the lack of explicit guidance had constituted a significant impediment thus far. Furthermore, the absence of such guidance had constrained the development of sustainable initiatives for the area.

It was thus evident that the forest management planning in the form of a tourism destination master plan was an urgent necessity. This planning document served a dual purpose: it provided a valuable reference point and offered a comprehensive guide for the development of community forest area into conservation and ecotourism-based tourist destinations. The implementation of a master planning document facilitated the development of a structured concept, thereby enabling the implementation of the development plan in stages. Furthermore, it would facilitate the coordination of development stages, ensuring that all parties involved possessed unambiguous guidance regarding their respective duties and responsibilities.

Development of Human Resource

One of the primary challenges encountered in the administration of the Noinbila Village community forest area in South Central Timor Regency was the lack of human resources with a background in tourism knowledge and skills. Consequently, the optimal strategy was to enhance the capacity of human resources, particularly in regard to knowledge and expertise in the tourism management. This strategy could be implemented through the implementation of a variety of training programs that certified competencies for managers in accordance with their respective roles.

CONCLUSION

This study explores the potential of the community forest area in Noinbila Village, South Central Timor Regency as a tourist destination based on the 4A tourism products model, specifically focusing on the Attraction, Amenity, Accessibility, and Ancillary components. In terms of the Attraction component, the destination offered a plethora of intriguing natural and cultural resources. However, these natural resources had yet to be fully integrated, resulting in a somewhat fragmented presentation. The initial Amenities provided at this tourist destination were numerous, yet the facilities were not effectively managed, resulting in significant deterioration. In terms of Accessibility, this destination offered well-developed infrastructure, although the considerable distance from potential markets represented a significant challenge. The forest was situated in a remote location, distant from urban centres and other popular tourist destinations. With regard to the Ancillary

component, a number of factors were worthy of mention. These included the existence of management and human resources, regulatory support, government support, and community support. Nevertheless, these still required harmonization and development.

The development of community forest area was also confronted with four significant challenges. First, the potential attractions were not effectively integrated into the tourism experience, resulting in a lack of diversity and organization in the offerings available to tourists. Second, the condition of existing facilities in the community forest area also presented a considerable obstacle to its development as a tourist destination. Third, accessibility was also a significant challenge, as the community forest area was situated at a considerable distance from potential markets. Fourth, there was a limited number and range of human resources available, thus there was a considerable number of young people from the region opted to migrate elsewhere. The proposed development strategies included the regulatory harmonization, collaboration among stakeholders, development of a comprehensive master plan, and development of human resource.

The findings of this study may serve as a point of reference for the development of tourist destinations in the community forest area of Noinbila Village, South Central Timor Regency, with a focus on environmental conservation. The following recommendations are proposed for consideration by stakeholders in the future development of this project: regulatory harmonization, collaboration among stakeholders, development of a comprehensive master plan, and development of human resources.

A limitation of this research is that the majority of the data obtained were sourced from interrelated key informants. Prior to the preparation of this research report, no strategic plan for the development of the South Central Timor Regency had been obtained. Furthermore, the potential for developing ecotourism based on the unique soil and land conditions that allowed for the cultivation of specific plants had yet to be explored. In the meantime, the advancement of a given region necessitated a unified strategy in conjunction with the regional development plan, taking into account the location of the community forest. In this regard, future researches are suggested to integrate regional development plans into the spatial and agricultural aspects that are closely related to the development of community forest area. Furthermore, in order to achieve effective community forest management, it is essential to establish a network of stakeholders. This is particularly crucial in the context of developing the community forest areas, given the inherent limitations of local communities in terms of capital and access to broader resources.

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