

Collaboration Based Ecotourism Development Strategy in the Pucak Tinggan Area, Badung Regency, Bali Province

I Wayan Pantiyasa^A, I Nyoman Darma Putra^B, Made Antara^C,
I Wayan Suardana^D

Abstract

Traditional villages refer to settlements or areas in Indonesia that maintain local traditions, customs and cultural values distinctively and from generation to generation. Each traditional village has its own uniqueness and specialties, reflecting the diversity of Indonesian culture. Although many traditional villages still maintain traditions, some villages have to face challenges in maintaining cultural heritage amidst modernization and social change. There is a desire from the people of Tinggan Traditional Village, the Forest Management Unit (KPH) of the Bali Provincial Forestry Service, and flower garden entrepreneurs to collaborate in developing ecotourism in the Pucak Tinggan area. This research aims to formulate a collaboration based ecotourism development strategy in the Pucak Tinggan area using an exploratory qualitative approach through IFAS, EFAS, IE, SWOT and AHP analysis to formulate a collaboration based ecotourism development strategy in the Pucak Tinggan area. The results of the research found that the Pucak Tinggan ecotourism development strategy was formulated through formulating appropriate marketing and promotion strategies, encouraging community participation in preserving and promoting ecotourism products, collaborating with local entrepreneurs and traditional village financial institutions, conducting outreach, seeking further support from the forestry service and local tourism services. Badung, developing community awareness of the environment and waste processing, increasing human resource competency, creating and improving facilities and infrastructure, establishing a management organization, collaborating with travel agencies, proposing a change in forest status from protected forest to social forest, creating a site plan and involving Babinsa and Traditional Village security units.

Keywords: Ecotourism, Collaboration, Development, Pucak Tinggan Area.

INTRODUCTION

Ecotourism or sustainable tourism is a form of tourism that prioritizes natural, cultural and social preservation. Ecotourism aims to maintain environmental sustainability and respond to local needs, while providing a positive experience for visitors (Rahayuningsih et al., 2016).

^AInstitut Pariwisata dan Bisnis Internasional, Indonesia, Email: pantiyasa@ipb-intl.ac.id

^BUniversitas Udayana, Indonesia, Email: darmadarmaputra@unud.ac.id

^CUniversitas Udayana, Indonesia, Email: antar_unud@yahoo.com

^DUniversitas Udayana, Indonesia, Email: suardana_ipw@unud.ac.id

Ecotourism also aims to create a balance between satisfying visitor needs and maintaining the integrity of local ecosystems and culture (Huang et al., 2023). It is hoped that the development of ecotourism can be a positive force in preserving nature and supporting the welfare of local communities (Kiper, 2013).

The potential of ecotourism is considered an effective strategy for sustainable development, economic development and conservation strategies (Kiper, 2013). Ecotourism development can provide economic benefits for the community both socially and culturally (Phillips & Pittman, 2009). Ecotourism development is needed to empower local communities, to get to know them better (Mendoza-Ramos & Prideaux, 2018), understand the area (Coria & Calfucura, 2012) and find the right solutions to overcome existing problems (Stone, 2015). By empowering local communities, good participation will be achieved between local communities, the tourism industry and government (Chuamuangphan, 2021).

Ecotourism will be able to develop and be popular with tourists if ecotourism is managed systematically, planned, integrated, sustainable and responsible so that it has competitiveness (Sukuryadi et al., 2021). Professional ecotourism management requires strategies to obtain added value in order to face the challenges of local, national and global development dynamics and still refers to religious values, culture that lives in society, sustainability and environmental quality (Wiratno et al., 2022). The concept of community-based ecotourism is one of the rural development efforts in the tourism sector (Chuang, 2010). According to (Noh et al., 2020) Rural tourism is characterized by the presence of tourist behavior that emerges in rural areas, the special characteristics of which can be traditional culture (Khaeriah, 2021) agricultural culture (Harianto et al., 2020), natural scenery (Staiff, 2021), and a simple lifestyle (Staiff, 2021). According to (Wiyono et al., 2020) the aim of developing rural tourism is to improve the quality of rural communities (inclusiveness of rural development) from an economic, social and environmental perspective.

Community based ecotourism is a logical component of sustainable development (Wang et al., 2021), requiring a multi-disciplinary approach (Hasana et al., 2022), careful planning (Anggraini & Gunawan, 2021), both physical and managerial (Teshome et al., 2021) and strict regulations to guarantee implementation (Sun et al., 2021). Ecotourism development requires good organizational management so that it has a good function as ecotourism sustainability economically (Sobhani et al., 2023), socio-culturally (Samal & Dash, 2023) and environmentally (Yekani Motlagh et al., 2020). Organizing ecotourism management is a necessity, not as a form of implementation of planning alone, but as an overall sustainable governance with the involvement of various parties (Xu et al., 2023). According to (Hikmah et al., 2020) ecotourism management aims to build competitiveness, ensure ecotourism sustainability (Lasso & Dahles, 2023), increase ecotourism results (Kibria et al., 2021) and build ecotourism identity

(Salman et al., 2021).

Based on Badung Regency Government regulations regarding the 2013-2033 Regional Spatial Planning with regulation No. 26 of 2013, it is stated that the North Badung area is a strategic integrated conservation and agricultural area: 1) Protect and preserve the Protected Forest Area in Pelaga Village, District Evening; 2) Developing community forests as protected forest buffer areas that are oriented towards environmental sustainability; 3) Controlling space utilization in rainwater areas and water catchment areas; 4) Developing integrated agriculture with an Agribusiness System orientation including the provision of production facilities, product processing, marketing and support from financial institutions, extension and research; 5) Develop effective, efficient and competitive farmer economic business institutions supported by adequate facilities and infrastructure; and 6) Develop special promotional tourist attraction areas and tourist attractions based on agrotourism and ecotourism.

Based on regulation No. 26 of 2013, Badung Regency, North Badung Region has started developing alternative tourism which is expected to improve community welfare. Tourism development begins in the Pucak Tinggan area which is often referred to as the tip of the keris (symbol of Badung Regency) because it is a peak area that has the potential for tourist destinations that can be developed into better ones such as pristine forests, cool air and fauna. Apart from that, from the Pucak Tinggan area you can also see the sunrise and sunset. Apart from the beautiful natural conditions in the middle of the Pucak Tinggan area, there is also the Pucak Mangu Temple which has historical and legendary value which is respected and trusted by the community. Beside the temple there is a water source called Beji and is believed by the community to be a holy place for self-purification called Melukat. Under the hill there is a large temple called Pura Penataran Pucak Mangu. Penataran Pucak Mangu Temple is visited by people from various regions in Bali, especially at the end of the month (called Tilem in Bali) and full moon (called Purnama in Bali). Not far from Penataran Pucak Mangu Temple there is also a spring which is also called Beji and this place is used by the community for the Piodalan ceremony (a ceremony which occurs every six months in the Balinese calendar or every 210 days of the Gregorian calendar).

The Tinggan Traditional Village community has guarded the forest for generations and stated it in the traditional village regulations (called Awig-Awig in Bali). One of the written rules of "Nyungkemin Wana" is that village communities must preserve the forest and must not cut down trees in the forest and also maintain forest safety from wood theft and forest destruction. Until now, this forest area has not provided added value for the people living around it, especially the people living directly adjacent to the forest, namely the Tinggan traditional village community. Indigenous village communities live from gardening such as coffee plantations, guava, asparagus, taro, cassava, corn and other horticultural crops. The life of the Tinggan traditional

village community is based on customs or traditions and Hindu religion which can be used as a tourist attraction.

In the Tinggan traditional village, three groups have been formed, namely: 1) The Mekar Sari Forest Farmers Group with farmer members from Subak Abian, the Tinggan Traditional Village with group businesses raising bees, biogas from cow dung, horticulture plant nurseries, plant development and coffee processing. 2). Taro chips processing group with members of the women's group from the Tinggan traditional village community. 3) Pucak Tinggan Tourism Awareness Group called Pokdarwis Cakti with a camping ground business. Even though a business group has been formed in the Tinggan Traditional Village to increase ecotourism in the area, the program has not been running well due to the low number of tourists visiting to buy the products offered. This happens because tourist villages are not yet known to tourists, which is due to marketing management and human resources not having the competence to manage tourist villages.

The development of ecotourism destinations requires careful planning (Murungi, 2020), (Kunjuraman, 2022) commitment from all parties (Hosseini et al., 2021), challenges (Phelan et al., 2020) and problems that must be faced in managing (Kamaludin et al., 2020). The development of community based ecotourism in rural areas should obtain benefits both economically (Henri & Ardiawati, 2020), educationally (Wearing et al., 2020), socio-culturally (Nugroho et al., 2020), health and environmental conservation benefits (Anom et al., 2015). One of the problems faced by Pucak Tinggan tourism is the problem of rubbish piled up and scattered in the parking area, causing a bad smell and environmental pollution. This is because there are no written regulations that tourists must obey. Another problem faced is the lack of inventory and analysis of tourism potential that can be developed for the Pucak Tinggan area. The most basic problem related to the development of Pucak Tinggan ecotourism is limited capital for collaboration based management and strategic design for ecotourism development.

Based on the background found by researchers in terms of developing the Pucak Tinggan ecotourism strategy. This research aims to develop a grand design for collaboration-based ecotourism development planning in the Pucak Tinggan area which is expected to be used as a blueprint for the community of Tinggan Traditional Village to formulate a collaboration-based ecotourism development strategy in the Pucak Tinggan area, Badung Regency. This research is expected to be a good solution for planning ecotourism development, starting from identifying tourism potential, compiling a site plan, designing ecotourism management both internally and externally so that ecotourism development in the Pucak Tinggan area has a clear direction and has a positive impact on the economy, socio-culture and indigenous communities.

LITERATURE REVIEW

Focusing on the problems and objectives of this research, the conceptual framework based on the considerations used is: (a) the literature material covered mostly uses an ecotourism development perspective; (b) suitability between the content of the problem and the methods used in the research; and (c) its alignment with ecotourism development in the Pucak Tinggan area. In the author's view, these three perspectives have more relevance to the research problem.

Previous research (Astara et al., 2019) examined tourist villages in the northern Badung area, especially the Pelaga tourist village, conducting research in 11 tourist villages in Badung Regency. One of the tourist villages studied was Pelaga Village but focused on one location, namely the traditional village or Banjar Kiadan. The results of the research found that the Pelaga Village development strategy for the Pelaga Tourism Village required coordination of the management of the Pelaga Tourism Village, the Badung Regional Government had to prepare land for the Pelaga Tourism Village development center. However, this research did not examine the Pucak Tinggan ecotourism area. Other research also examined tourism in the North Badung area (Arianty et al., 2018) in the Kiadan Traditional Village, the results of the research found : 1) Public understanding of tourist villages has improved well. 2) Management of traditional village-based tourism villages managed by traditional communities. 3) Reconstruction of dance (called Jogged in Bali) art for tourism purposes, trekking among coffee plantations, provides useful potential for tourist villages. (Nalayani, 2016) found that the community's response to the development of the Pelaga Tourism Village was quite good. (Creswell & John W., 2014) found that 11 tourist villages in Badung Regency have very beautiful natural views so they have the potential to develop ecotourism.

METHODS

Research Approach

This research uses an exploratory qualitative approach to solve the problem of ecotourism development in Pucak Tinggan. The research method explains that exploratory qualitative research is an approach to exploring and understanding the meaning of individuals or groups in responding to social or human problems (Duleba, 2022). Exploratory qualitative methods also produce information and knowledge related to the field under study (Howitt, 2019). This research uses two types of data, namely 1) qualitative data in the form of information on tourism potential from the Pucak Tinggan area, geographical data such as data on external conditions and, data on the implications of collaboration-based ecotourism development in the Pucak Tinggan area. 2) Quantitative data was collected which was obtained in the form of numbers provided by respondents regarding stakeholder responses to collaboration-based ecotourism development planning in the Pucak Tinggan area.

Research Instruments

Research instruments are tools used to obtain data as material for conducting studies in this research. The instruments for this research are as follows:

1. Observations

The object of observation used as a place to study this research is observing the tourism potential of Pucak Tinggan, identifying actors or people who play certain roles or activities related to Pucak Tinggan's ecotourism potential and interactions between the activities being carried out. Observations were carried out directly by distributing questionnaires which were prepared to obtain data through the AHP analysis technique. AHP analysis provides an assessment of each question on a scale of 1 to 9.

2. Interviews

Interview activities were carried out with a number of informants, namely sources and respondents who were deemed to have competence, insight and experience information related to stakeholders in collaboration based Ecotourism development in the Pucak Tinggan area. In this research, the researcher interviewed informants through a focus group discussion with Pucak Tinggan ecotourism management stakeholders, namely traditional village leaders, POKDARWIS, KTH Mekar Sari, and 19 other stakeholders. Interview guidelines were used to obtain data about tourism potential, natural resources, human resources, activities and attitudes of the Tinggan Traditional Village community and stakeholder responses.

3. Document Study

Document study is a study of data collection techniques by reviewing books, literature, notes and various reports related to the problem you want to solve. In this research, data was collected using document studies such as the history of Pucak Mangu Temple, geographical conditions and demographics of the Tinggan traditional village. The documentation study was carried out to obtain direct data about the conditions of the research area and documents related to the development of collaboration based ecotourism in the Pucak Tinggan area in the form of books, photos and other documents.

Data Analysis Techniques

Qualitative Descriptive Analysis

Analysis used in this research adopts the concept of Miles and Huberman (1992) which consists of (1) data reduction carried out by selecting all data obtained both related to ecotourism management conditions, including adding field data or looking for new data if deemed insufficient. (2) presentation of selected data carried out descriptively and narratively, and (3) conclusion of all data presentation and previous analysis. Miles and Huberman's analysis technique is used to answer the steps for developing collaboration-based ecotourism in the Pucak Tinggan area by identifying tourism potential, developing tourism products, formulating governance and marketing planning and knowing

the implications of developing collaboration based ecotourism for the development of sustainable tourism in the Pucak Tinggan area.

Matrix Analysis IFAS, EFAS and IE

The internal factors that have been identified regarding the strategic development of collaboration-based ecotourism in the Pucak Tinggan area are analyzed into the IFAS matrix. The IFAS matrix is used to analyze strategic factors into categories of strengths and weaknesses in the development of collaboration-based ecotourism in the Pucak Tinggan area. Meanwhile, the external factors that have been identified regarding the strategic development of collaboration-based ecotourism in the Pucak Tinggan area are analyzed into a matrix analyzed using the EFAS matrix. The EFAS Matrix helps organize external factors into generally accepted categories regarding opportunities and threats for collaboration-based ecotourism development in the Pucak Tinggan Region. Then analysis of the IFAS and EFAS matrices produces an Internal External (IE) matrix which consists of 9 types of cells which pay attention to the combination of total values given weights from the IFAS – EFAS matrix. The IE matrix is divided into three main parts with different strategic implications, namely (1) growth and development which fall into cells I, II, or IV. (2) defense and maintenance are classified as cells III, V, or VII. (3) Disinvestments classified in cells VI, VII, or IX are disinvestments.

SWOT Analysis (Strengths, Weaknesses, Opportunities, Threats)

SWOT analysis is used to analyze the objective, namely to formulate a strategy for developing ecotourism in the Pucak Tinggan area which consists of; (1) SO (Strength, Opportunity) Strategy: a strategy based on utilizing all strengths to seize and exploit maximum opportunities. (2) WO (Weakness, Opportunity) Strategy: a strategy created based on exploiting existing opportunities by minimizing existing weaknesses. (3) ST (Strength, Threat) Strategy: a strategy created by maximizing the strengths possessed to overcome threats and (4) WT (Weakness, Threat) Strategy: a strategy created based on defensive activities and trying to minimize weaknesses and avoid threats.

AHP (Analytic Hierarchy Process)

Decision makers in planning are often faced with complex problems. One of these problems is the problem of determining the choice of several candidates or simply ordering the priorities of several candidates. Decision making problems can become complex because of the involvement of several objectives and criteria. The source of complexity of decision problems is not only due to uncertainty or imperfect information. However, there are still other causes, such as the many factors that influence the existing choices, with various criteria. In this research, the AHP (Analytic Hierarchy Process) analysis technique is a continuation of data analysis techniques to formulate

collaborative-based ecotourism development strategy priorities towards sustainable tourism in the Pucak Tinggan area, Badung Regency.

RESULTS AND DISCUSSION

Collaboration Based Ecotourism Development Strategy in the Pucak Tinggan Area, Badung Regency

A collaboration based ecotourism development strategy in the Pucak Tinggan area was prepared with the aim of obtaining an ecotourism development strategy in North Badung. The strategy prepared based on a SWOT analysis of the internal environment and external environment in the Pucak Tinggan area is as follows:

1. General Strategy

The general strategy created to carry out a collaboration-based ecotourism development strategy in the Pucak Tinggan area was created based on IFAS, EFAS and IE analysis.

a. IFAS Matrix Analysis

Based on the results of interviews and observations of collaboration-based ecotourism development strategies in the Pucak Tinggan area, internal factors include: beautiful views consisting of towering hills and green lush forests, cool climate, culture, local community activities and local community involvement. However, despite the potential of the Pucak Tinggan area, the internal aspect becomes a problem if the local community is not yet fully aware of the importance of preserving the natural environment and their lack of waste management experience and limitations in terms of transportation can have an impact on the number of visitors who come. The results of interviews and observations are also supported by data that analyzes internal factors, strengths and weaknesses, collaboration-based ecotourism development strategies in the Pucak Tinggan area using the IFAS matrix as follows:

Table 1. Internal Factors

Internal factors	Weight	Ratings	scores
Strength			
1. Unspoiled natural conditions	0.077	4	0.31
2. Has diverse tourism potential (natural, artificial, cultural, community activities)	0.073	3.8	0.28
3. There is support from the community	0.071	3.7	0.26
4. There is support from entrepreneurs	0.069	3.6	0.25
5. There is support from the forestry service	0.069	3.6	0.25
6. There is support from the Badung tourism office	0.067	3.5	0.24
7. Close to the famous destinations of Nung Nung Waterfall, Tukad Benchung, Kintamani	0.069	3.6	0.25
8. The Pucak Tinggan area is well known because it is often visited by climbers and spiritual tourists	0.073	3.8	0.28
Weakness			
1. Society is not yet fully aware of preserving the natural environment	0.046	2.4	0.11
2. Don't understand waste management	0.042	2.2	0.09
3. Facilities and infrastructure for BCA's CSR assistance have been damaged	0.046	2.4	0.11

4. The area does not yet have a management organization	0.040	2.1	0.08
5. Does not yet have an area development mapping/site plan	0.040	2.1	0.08
6. HR is not yet competent	0.042	2.2	0.09
7. There is no permit for forest change status yet	0.046	2.4	0.11
8. Don't have a working partner with a tourism company/agency/institution that could be a potential tourist	0.044	2.3	0.10
Total			3.08

Source: Processed from research results, 2024

The results of the IFAS matrix analysis presented in table 1 can be concluded that among the internal factors, the highest score for the strength factor of the Pucak Tinggan Area is the unspoiled natural conditions with a value of 0.36. The weakness factor with the highest score in the Pucak Tinggan area is that the BCA CSR assistance facilities and infrastructure have been damaged by 0.11.

b. EFAS Matrix Analysis

Analysis of external factors is important to help understand how external conditions can influence plans and strategies. By identifying opportunities, you can take proactive steps to exploit them. Some of the opportunities that the Pucak Tinggan area has as an ecotourism area include the presence of Regional Regulation No. 26 of 2013 concerning Badung Regency Regional Spatial Planning for 2013-2033, with a geographical (regional physical) and functional approach, the North Badung development area which covers the entire Petang District, the main function of this area is as an integrated conservation and agricultural area. The results of the interview revealed that utilizing natural resources in the Pucak Tinggan area was initiated by the tourism awareness group in the Pucak Tinggan area: "Of course. The Pucak Tinggan area has a lot of tourism potential related to culture and nature. One of them is the skill of cultivating tubers. In the village We, many people have the skills to process tubers. They make various types of chips. We also have an educational program to teach the general public about how to process tubers. To add to the tourist attraction we have an idea for tourists (non Balinese) who come here, with "offers learning programs using traditional Balinese clothing and traditional Balinese dance, as well as telling the history of Pucak Mangu Temple. We want to introduce Balinese culture to tourists." (interview, 20 May 2023). The results of observations and interviews also found that there is an increase in tourist interest in ecotourism and authentic natural experiences so that educational programs that teach tourists how to process tubers, learning programs to wear traditional Balinese clothing and traditional Balinese dance and telling the history of Pucak Mangu Temple are great opportunities for the Pucak Tinggan area to attract visitors looking for an ecotourism experience. The results of interviews and observations were also supported by questionnaires which were analyzed through internal factors, including the strengths and weaknesses of collaboration-based ecotourism development strategies in the Pucak Tinggan area using the EFAS matrix, which can be seen in table 2 below:

Table 2. External Factors of the EFAS Matrix

External Factors	Weight	Ratings	scores
Opportunity			
1. Regional Regulation No. 26 of 2013	0.09	4.00	0.36
2. There is a policy to change protected forests into social forests	0.07	3.90	0.29
3. The trend of tourist visits to Bali is increasing	0.08	4.00	0.31
4. Tourists' interest in visiting nature is increasing	0.07	3.90	0.29
5. Technological Advances, Telecommunication Transportation	0.08	4.00	0.31
6. Global economic growth	0.07	3.70	0.26
7. Implementation of development principles that are environmentally and culturally sound.	0.07	3.60	0.25
Threat			
1. Many similar destinations	0.06	3.30	0.21
2. Potential conflict in society	0.05	2.40	0.11
3. Environmental pollution	0.05	2.80	0.15
4. The threat of global terrorism	0.06	2.90	0.16
5. Increasing Crime in Bali is Widespread	0.06	2.90	0.16
6. Issues regarding certain diseases in Bali	0.06	3.00	0.17
Total			3.02

Source: Processed from research results, 2023

Based on table 2, it can be concluded that the opportunity factor for Regional Regulation NO.26 of 2013 has the highest score with a value of 0.36. Meanwhile, the opportunity factor for implementing environmental and cultural development principles has the lowest value, namely 0.25. On the other hand, the threat factor of many similar destinations has the highest value with a score of 0.21.

c. IE Matrix (Internal – External)

Based on the results obtained from the IFAS matrix (table 1) with a total score of 3.08 and the EFAS matrix (table 2) with a total score of 3.04, then the results of the IFAS matrix and EFAS matrix are arranged into the IE matrix to produce table 3 as below.

Table 3. IE (Internal-External) Matrix

		IFAS		
		Strong	Average	Weak
EFAS	Tall			
	Currently			
	Low			

Source: processed from 2023 research results

2. Alternative Strategy

Alternative strategies are prepared based on SWOT analysis and AHP analysis to provide a clearer picture of the opportunities and challenges faced in developing Pucak Tinggan ecotourism using SWOT analysis. The development of the Pucak Tinggan area must be carried out in a sustainable manner, taking into account environmental, social and economic aspects. This is important to preserve nature in this area, as well as improve the welfare of local communities. The local government and the private sector need to work together in developing the Pucak Tinggan area. With good cooperation, the development of the Pucak Tinggan area can run effectively and efficiently, so that it can

provide optimal benefits for the community and environment in the Pucak Tinggan area. The results of interviews and observations revealed the strengths, weaknesses, opportunities and threats of the Pucak Tinggan area using the SWOT matrix which can be seen in table 4.

Table 4. SWOT Analysis Results

EFAS	IFAS	POWER(S):	WEAKNESSES (W):
	<ol style="list-style-type: none"> 1. Unspoiled natural conditions 2. Has diverse tourism potential (natural, artificial, cultural, community activities) 3. There is support from Indigenous communities 4. There is support from entrepreneurs 5. There is support from the Forest Service 6. There is support from the Forest Service 7. Close to Nungnung waterfall, Tukad Badung Bridge and DTW Kintamani 8. The Pucak Tinggan area is well known because it is often visited by climbers and spiritual tourists 	<ol style="list-style-type: none"> 1. Society is not yet fully aware of preserving the natural environment 2. Don't understand waste management 3. Facilities and infrastructure for BCA's CSR assistance have been damaged 4. The area does not yet have a management organization 5. Does not yet have an area development mapping/site plan 6. HR is not yet competent 7. There is no permit for forest change status yet 8. Don't have any working partners with tourism companies/agencies/institutions that can act as potential tourists 	
	OPPORTUNITIES (O):	STRATEGY (SO):	STRATEGY (WO):
	<ol style="list-style-type: none"> 1. Regional Regulation No. 26 of 2013. 2. There is a policy to change protected forests into social forests. 3. The trend of tourist visits to Bali is increasing. 4. Tourists' interest in visiting nature is increasing. 5. Technological Advances, Telecommunication Transportation. 6. Global economic growth. 7. Implementation of development principles that are environmentally and culturally sound. 	<ol style="list-style-type: none"> 1. Development of Ecotourism Tour Packages. 2. Encouraging Active Community Participation in Preserving and Promoting Local Cultural Heritage. 3. Collaborating with Local Entrepreneurs, traditional village financial institutions in the Development of Sustainable Tourism Infrastructure. 4. Exploring Further Support from the Forestry Service and Badung Tourism Service. 	<ol style="list-style-type: none"> 1. Structuring for ecotourism management. 2. Create and improve tourism facilities and infrastructure. 3. Proposing to change the status of some protected forests to social forests. 4. Making a site plan for ecotourism development. 5. Conduct training to increase HR competency. 6. Socialization to the community about ecotourism development.
	THREAT (T):	STRATEGY (ST):	STRATEGY (WT):
	<ol style="list-style-type: none"> 1. Similar destinations 	<ol style="list-style-type: none"> 1. Formulate appropriate 	<ol style="list-style-type: none"> 1. Developing public

2. Potential conflict with local communities	marketing and promotional strategies	awareness of the environment and waste management
3. Environmental pollution	2. Conduct outreach to the community	2. Establishment of a Management Organization and Area Mapping
4. Global terrorism threat	3. Involving Babinsa and village security units (Pecalang adat village)	
5. Increasing Crime in Bali		
6. The spread of issues regarding certain diseases in Bali		

Source: Processed research results 2023

Based on the analysis above, it shows that the alternative strategy created is a combination of internal and external factors which are then arranged in more detail by forming a program for the development of Pucak Tinggan ecotourism as follows;

Table 5. Alternative Program for Pucak Tinggan Ecotourism Development Strategy

No	Strategy	Work program
A SO		
1	Development of Ecotourism Tour Packages	<ul style="list-style-type: none"> Preparation of sustainable ecotourism guidelines Annual ecotourism festival inviting ecotourists and artists to participate
2	Encouraging Active Community Participation in Preserving and Promoting Local Cultural Heritage	<ul style="list-style-type: none"> Encourage active community participation in concrete conservation projects, such as documentation. Encourage community participation in the planning, organization and promotion of festivals
3	Collaborating with Local Entrepreneurs, traditional village financial institutions in the Development of Sustainable Tourism Infrastructure	<ul style="list-style-type: none"> Organizing consultation and collaboration forums between local governments, local entrepreneurs and local communities. Provide access to resources and experts to guide local entrepreneurs in the implementation of sustainable practices. Involving traditional village financial institutions in development funding
4	Exploring Further Support from the Forestry Service and Badung Tourism Service	<ul style="list-style-type: none"> Hold regular meetings to discuss forestry projects that can support tourism. Designing a superior sustainable tourism program that attracts tourist interest and gets full support from the Badung Tourism Office.
B S-T		
	Formulate appropriate marketing and promotional strategies	<ul style="list-style-type: none"> Carry out online marketing via the web and social media. Involve local communities.
	Conduct outreach to the community	<ul style="list-style-type: none"> Conduct regular outreach to the community about the benefits of tourist villages. Designing a budget for cultural preservation or traditional ceremonial activities
	Involving Babinsa and village security units (Pecalang adat	<ul style="list-style-type: none"> Involving Babinsa if there are tourist visits Involving village security units in tourist visits

No	Strategy	Work program
	village)	
C	W-T	
1	Developing public awareness of the environment and waste management	<ul style="list-style-type: none"> • Create interesting and informative educational content about preserving the natural environment. • Provide training on how to manage waste properly and correctly for the community, including waste separation and recycling.
2	Establishment of a Management Organization	<ul style="list-style-type: none"> • Develop an organizational plan that includes the organizational structure, duties and responsibilities, human resources, and necessary finances. • Preparation of Tourism Area Maps: Compile tourism area maps which include tourist attractions, supporting infrastructure, accessibility, as well as recommendations for tourism development in each area.
3	Improving the quality of human resources involved in area management	<ul style="list-style-type: none"> • Providing training and education to human resources involved in area management • Conduct comparative studies of tourist villages that have already developed
D	W-O	
1	Organizational structuring for ecotourism management	<ul style="list-style-type: none"> • Organizational Structure Design • Preparation of Job description
2	Create and improve tourism facilities and infrastructure	<ul style="list-style-type: none"> • Creating tourism facilities that do not yet exist: Entrance ticket sales post in front of the forest area • Improve access to tourist attractions
3	Proposing to change the status of some protected forests to social forests	<ul style="list-style-type: none"> • Inviting the community to provide support for changes in forest status • Application for changing the status of a protected forest to a social community forest
4	Making a site plan for ecotourism development	<ul style="list-style-type: none"> • Analyze data to identify potential areas and constraints. • Applying GIS technology to understand spatial relationships between regional elements
5	Collaborating with travel agencies, schools, universities, community organizations, government and private agencies	<ul style="list-style-type: none"> • Socializing • Make a cooperation agreement

Source: Research Data Processing, 2023

Selection of Collaboration Based Ecotourism Priority Strategies in High Peak Areas Based on AHP Analysis

To get the best strategy, a selection was made using the AHP method. Analytical Hierarchy Process (AHP) for the development of Pucak Tinggan ecotourism. AHP is one that is used to obtain rational and accurate decisions so that it can be used for the development of

Pucak Tinggan ecotourism . The use of the AHP method to classify based on ecotourism priorities is in Pucak Tinggan which is obtained from SWOT analysis. The SWOT strategy is used to determine alternative strategies for the development of Pucak Tinggan ecotourism. The AHP method uses 14 strategies. Alternatives are: (1) Development of Ecotourism Tour Packages. (2) Encourage Active Community Participation in Preserving and Promoting Local Cultural Heritage. (3) Collaborating with local entrepreneurs and traditional village financial institutions in developing sustainable tourism infrastructure. (4) Seek further support from the Forestry Service and the Badung Tourism Office. (5) Formulate appropriate marketing and promotional strategies. (6) Conduct outreach to the community. (7) Involving Babinsa and the village security unit (Pecalang adat village). (8) Developing public awareness of the environment and waste management. (9) Establishment of an Area Management and Mapping Organization. (10) Improving the quality of human resources involved in area management. (11) Organizational structuring for ecotourism management . (12) Create and improve tourism facilities and infrastructure. (13) Proposing to change part of the status of protected forests to social forests and (14) Making a site plan for ecotourism development.

Collaborative Based Ecotourism Development Strategy in the Pucak Tinggan Area

Based on the results of questionnaire data processing which was then used as a comparison matrix, it is known that the priority strategy for developing Pucak Tinggan ecotourism is as follows:

Table 6. Priorities Election Strategy

No	Objective	Results
1	Developing ecotourism tour packages	,139
2	Encourage active community participation in preserving and promoting ecotourism tourism	,098
3	Collaborating with local entrepreneurs, village financial institutions are involved in developing ecotourism	,097
4	Seeking further support from the Badung forestry and tourism services,	,087
5	Formulate appropriate marketing and promotional strategies	,130
6	Conduct outreach to the community	,094
7	Involving Babinsa and village security units (Pecalang traditional in Bali)	,018
8	Developing public awareness of the environment and waste management, establishing management organizations	,074
9	Establishment of a management organization	,047
10	Improving the quality of human resources involved in area management	,061
11	Collaboration with travel agents	,047
12	Create and improve tourism facilities and infrastructure	,048
13	Proposing a change in status from protected forest to social forest	,042

Based on table 6 Priorities Election The strategy can be drawn that the priority order of criteria in selecting the best collaborative-based ecotourism development strategy is the development of ecotourism tour packages. The Analytical Hierarchy Process (AHP) method is very suitable for use in decision-making processes with multi-criteria and multi-alternatives, such as decisions in determining the best collaborative-based ecotourism development strategy in the Pucak Tinggan area, because this method shows the results of weighting comparisons between criteria and alternatives. Based on the AHP analysis, a priority scale for ecotourism development strategies based on collaborative development of Pucak Tinggan ecotourism can be prepared as in table 7.

Table 7. Priority Scale for Collaboration Based Ecotourism Development Strategies in the Pucak Tinggan Area

Strategy	Score	Priority
Development of Ecotourism tour packages	0.139	1
Formulate Appropriate Marketing and Promotion Strategies	0.130	2
Encourage active community participation in preserving and promoting ecotourism products	0.98	3
Collaborating with local entrepreneurs, traditional village financial institutions in developing ecotourism	0.97	4
Conduct outreach to the community	0.94	5
Seeking further support from the forestry service and Badung tourism service	0.87	6
Developing public awareness of the environment and waste management	0.74	7
Increasing human resources involved in managing ecotourism areas	0.61	8
Create and improve tourism facilities and infrastructure	0.48	9
Establishment of an Ecotourism Management Organization	0.47	10
Collaboration with travel agents	0.47	11
Proposal to change the status of some protected forests to social forests	0.42	12
Creating an Ecotourism Site Plan	0.20	13
Involving Babinsa and traditional village security units (Pecalang)	0.18	14

Source: Research, 2023

Strategy for the Development of Pucak Tinggan Ecotourism

The development of tourism packages at Tinggan peak can implement the generic theory of tourism products Smith, 1994 can convey a physical design such as a site, natural resources or facilities such as waterfalls, wildlife. Based on Smith's theory, several types of tourism products can be created by updating existing tourism products and creating superior new products, which can be seen in the following table:

Table 8. Development of Pucak Tinggan Ecotourism Products

No	Types of products	Information
1	Hiking to see the view of the village atmosphere	Long
2	Hiking to Mangu Peak	Long
3	Camping	Long

4	Edu Tourism	Long
4	Wellping (wellness camping), Spiritual Tourism	New
5	Family Fun	New
6	Cooking Class (asparagus vegetables)	New

Source: Research, 2023

Developing ecotourism tour packages is an important step in improving sustainable tourism. Ecotourism focuses on environmental sustainability, education, and local community participation. The Pucak Tinggan traditional village had previously been used as a tourist village with the help of PT Bank Central Asia, Tbk's CSR, but it didn't last long, this was because the Pucak Tinggan Traditional Village previously created conventional tourism packages that did not take ecotourism principles into consideration. Considering the natural potential of the Pucak Tinggan Traditional Village which is still natural and has an alluring charm, it can be used as a natural tourism destination by carrying out programs (1) Developing sustainable ecotourism guidelines is an important work program to be carried out with consideration for nature and culture preservation, reducing environmental impacts and empowering local communities. (2) Holding an annual festival by inviting ecotourists and artists to participate has a significant positive impact on the development of ecotourism tour packages, considering the annual festival to be an effective platform for promoting ecotourism values. Through the participation of ecotourists and artists, the message of sustainability and nature conservation can be conveyed creatively to visitors, increasing awareness about the importance of protecting the natural environment. Involving artists in festivals provides opportunities to explore creativity and innovation in the presentation of ecotourism values. Art can be a powerful means of conveying messages and increasing the attractiveness of a destination.

Formulate Appropriate Marketing and Promotional Strategies

Marketing is an activity, both activities carried out by organizations and individuals operated through institutions or institutions, both profit-oriented (factories, wholesalers, retailers, consultants, etc.) and non-profit (social institutions, public, etc.) as well as processes to create, communicate, deliver and exchange all offers that have value for customers (end customers and business customers), clients (not-for-profit institution customers), partners, and by providing benefits while remaining responsible to society at large. In order for the marketing function to run effectively and efficiently, this function must be managed well. Management of the development of tourist packages at Tinggan peak with respect to the marketing function requires strategic steps to increase public awareness about the existence and potential of hidden tourism objects. This helps create demand and interest from tourists who may not have previously known about the place. By attracting tourists to hidden tourism objects such as the Pucak Tinggan area, marketing strategies can become a catalyst for local economic growth. Increasing visits has the potential to have a positive impact on local businesses and the local community, so it is

necessary to introduce the charm of the Pucak Tinggan area to tourists through: (1) Online marketing allows the tourist area to reach a global audience. With the web and social media, information about destinations can spread quickly and reach potential tourists in various parts of the world. Social media provides a platform to interact directly with tourists. This two-way communication allows tourism areas to get feedback, answer questions, and build stronger engagement. Online marketing is often more economical than traditional methods. Using social media and websites can be a more affordable investment, especially for tourist destinations on a limited budget. (2) Involving local communities who have in-depth traditional knowledge about the local environment and ecosystem. Involving them ensures sustainable use of natural resources and protection of biodiversity. Involving local communities creates a sense of shared ownership and responsibility for the tourist area. This can reduce the risk of exploitation and environmental damage because communities have an interest in preserving the environment.

Encouraging Active Community Participation in Preserving and Promoting Local Cultural Heritage

Encouraging active community participation in preserving and promoting local cultural heritage is crucial in developing sustainable ecotourism by utilizing local knowledge about the environment and culture. Tinggan Traditional Village has cultural heritage in the form of Pura Pucak Mangu, Purta Taman Beji, Pura Bukit Kaja, Pura Bukit Tengah, Pura Puseh, with spiritual cultural potential that is very strong in local culture. One of the potential unique traditional traditions possessed by the Tinggan Traditional Village and which many tourists still don't know about is the Mepeed tradition, so efforts need to be made to encourage active community participation in the unique cultural preservation project owned by the Tinggan Traditional Village in the form of masterpieces or large ceremonies at the temple. Pucak Mangu, Tinggan Traditional Village, Pelaga, Badung is not only unique because it is held every 10 years. One of the interesting traditions of great works is the mapeed or maleladan tradition. This is one of the traditions that krama or indigenous people have been waiting for. Mapeed or maleladan is a tradition of bringing offerings together to the temple on foot. The convoy will walk slowly and neatly in line. Usually mapeed participants are dominated by women with uniform offerings and clothing. The mapeed tradition during the masterpiece at Pucak Mangu Temple is not only followed by local indigenous people. But also residents from neighboring traditional villages, such as Belok Sidan Village. Residents of the traditional village or Pangempon Pura Puncak Antapsai Bon in Belok Sidan Village take turns bringing offerings in the form of natural products to the temple. Documentation can be an

effective marketing tool. The public, tourists and related parties can see the potential of ecotourism through documentation, generating interest and desire to visit. Documentation also covers cultural heritage and local identity. This helps in the preservation and promotion of cultural riches which can be a major attraction for ecotourism.

Encourage community participation in planning, organizing and promoting the festival to introduce the uniqueness of mepeed which has been passed down from generation to generation by the people of Tinggan Traditional Village, but the cultural potential which is so interesting and unique has not been touched by tourism actors, a uniqueness which can only be enjoyed at intervals of once every ten years , has never been exploited as a tourism potential. For that program to plan, organize and promote the festival. Participation in the organization and planning of festivals allows communities to maintain and promote their cultural heritage. This not only provides tourists with a unique experience but also enriches local cultural identity. Festivals designed with community participation tend to be more authentic and attractive to tourists. Sustainability and balance between festival activities and the surrounding environment creates a sustainable attraction.

Collaborating with Local Entrepreneurs, traditional village financial institutions in the Development of Sustainable Tourism Infrastructure

The development of the peak attraction of Tinggan involving local entrepreneurs and traditional village financial institutions in the development of sustainable tourism infrastructure is a new breakthrough that has never been thought of by tourism village managers in the Tinggan Traditional Village, such as (1) Organizing consultation and cooperation forums between the regional government, local entrepreneurs, and local community. Local entrepreneurs have a deep understanding of the potential and challenges in their environment. Involving local entrepreneurs in the planning and implementation of tourism infrastructure projects ensures that the resulting solutions meet local needs. (2) Provide access to resources and experts to guide local entrepreneurs in the implementation of sustainable practices. The government's presence in providing access to sustainability experts such as environmental consultants and financial experts who understand the impact of business practices on the environment and social sustainability. This guidance can help local entrepreneurs identify concrete steps to increase business activities in the Pucak Tinggan area. (3) Involving traditional village financial institutions in development funding is key in financing tourism

infrastructure projects.

Conduct Outreach to the Community

Socialization increases public awareness of tourism development plans. With good understanding, communities can be more actively involved and participate in decision-making processes, ensuring that local interests and aspirations are taken into account. The programs that can be carried out to develop Pucak Tinggan ecotourism tour packages; (1) Through regular outreach, community uncertainty and concerns can be overcome. Good explanation of benefits and risk mitigation helps increase community acceptance of tourism development projects. (2) Designing a budget for cultural preservation, or traditional ceremonial activities to help maintain and preserve local identity. A sustainable development approach in ecotourism requires special attention to local culture and identity. By designing a budget that focuses on cultural preservation, tourist areas can help build an environment that is ecologically, economically and socially sustainable.

Exploring Further Support from the Forestry Service and Badung Tourism Service

The most favorite potential in the Pucak Tinggan area is Pucak Mangu which is a favorite of climbers, because the distance is short from the city of Denpasar and from Tabanan Regency, besides that, to reach Pucak Mangu it doesn't take that long, it is an option for spiritual aspirants and nature lovers to take the time to visit this beautiful peak, the pioneer management of the tourist village had previously never considered the potential of the forests in the Pucak area as a potential tourist destination. Work program that can be pursued to develop Pucak Tinggan ecotourism tour packages; (1) Hold regular meetings to discuss forestry projects that can support tourism. (2) Designing a superior sustainable tourism program that attracts tourist interest and gets full support from the Badung Tourism Office. Sustainable tourism programs can be a driving force for the local economy by creating new jobs and increasing local community income, along with increasing tourist interest.

Developing public awareness of the environment and waste management

Environmental awareness is the main foundation for involving the community in conservation efforts. With strong awareness, people will be more inclined to protect and preserve the environment around them. Programs created to develop Pucak Tinggan ecotourism tour packages include (1) Creating interesting and informative educational content about preserving the natural environment. The importance of preserving

the natural environment has become a major highlight in the era of sustainable tourism. To develop tourist areas, creating interesting and informative educational content about preserving the natural environment is a strategic step. Educational content must focus on the uniqueness of the tourist area. Highlighting unique aspects of the natural environment that need to be preserved will provide visitors with a deeper understanding. (2) Provide training on how to manage waste properly and correctly for the community, including waste separation and recycling. Training on good and correct waste management creates awareness of the importance of environmental conservation. With this understanding, the community will be more actively involved in nature conservation efforts, supporting the vision of sustainable ecotourism. Training provides knowledge about how to manage waste as an economic resource. By integrating circular economy concepts, communities can create new business opportunities, such as recycling, which can improve the local economy and support ecotourism development.

Improving the quality of human resources involved in area management

To carry out a collaboration-based ecotourism development program in the peak area, it is necessary to increase human resources such as training in guiding tourists. Tourist Guide Training is a strategic step in supporting tourism development in the peak areas. In this effort, collaboration between local governments, the private sector, the community and even tourists is highly expected. Tour guides, as one of the key stakeholders, play an important role as facilitators who provide guidance, information and instructions to tourists, as well as carrying out heavy duties as frontliners and information agents. The training material covers various aspects, such as working as a tour guide, providing assistance on arrival and departure, developing the required general knowledge, to technical aspects such as managing tours, leading tour groups, and presenting information on tours. Apart from that, the training also focuses on cultural aspects, both investigating and sharing general information about Indonesian ethnic culture and interpreting aspects of local Indonesian ethnic culture.

Create and improve tourism facilities and infrastructure

Based on the results of observations in the Pucak Tinggan area, the facilities and infrastructure that need to be provided include: (1) Ticket sales place in the forest area; (2) Providing public toilets/toilets; (3) Providing Parking Space; (4) Improved access to the peak of Tinggan tourist attraction; (5) Make directions to the attraction; (6) Make signs

or danger signs along the forest area; (7) provide a sufficient number of rubbish bins.

CONCLUSION

The collaboration based ecotourism development strategy in the Pucak Tinggan area consists of a general strategy of continuing to build and alternative strategies that can be developed, including developing ecotourism packages, formulating appropriate marketing and promotion strategies, encouraging active community participation in preserving and promoting ecotourism products, collaborating with local entrepreneurs and institutions. traditional village finances, conducting outreach to the community, seeking further support from the forestry service and Badung regional tourism department, developing community awareness of the environment and waste processing, increasing human resource competency, creating and improving facilities and infrastructure, establishing a management organization, collaborating with travel agencies, proposing a change in forest status from protected forest to social forest, making a site plan and involving babinsa and community security units. This research also provides recommendations for collaboration-based ecotourism development strategies in the Pucak Tinggan area, especially (1) for the people of the Pucak Tinggan Traditional Village to understand that ecotourism aims to preserve the natural environment. understand the importance of sustainable waste management, develop local natural and cultural potential and participate in ecotourism development; (2) To the Regional Government of Badung Regency to be able to provide financial assistance to develop ecotourism, develop regulations that support the development of ecotourism and carry out extensive promotion of ecotourism, both domestically and abroad; (3) For entrepreneurs to collaborate with local communities to develop natural tourism, such as hiking, camping and bird watching. As well as collaborating with local communities to develop cultural tourism, such as learning traditional dances, making handicrafts, and participating in traditional ceremonies and together with local communities to develop educational tourism, such as learning about environmental conservation and local wisdom.

REFERENCES

- Anggraini, R. I., & Gunawan, B. (2021). Ecotourism development in National Parks: A new paradigm of forest management in Indonesia. *E3S Web of Conferences*, 249, 03010. <https://doi.org/10.1051/e3sconf/202124903010>
- Anom, I., Suryasih, I., Suryawan, I., Mertha, D., Ariwangsa, I. M., Sastrawan, I. G., Nugroho, S., & Mahagangga, I. G. (2015). *Final*

- Report of Badung District Tourism Village Development Study.*
<https://doi.org/10.13140/RG.2.2.12520.29447>
- Arianty, A. A. A. S., Semara, I. M. T., & Pradnyandari, N. N. N. (2018). Community Perceptions on the Development of Pelaga Tourism Village as a Green Village Destination. *Jurnal Ilmiah Hospitality Management*, 8(2), 2. <https://doi.org/10.22334/jihm.v8i2.135>
- Astara, I. W. W., Mardika, I. M., & Singapurwa, N. M. A. S. (2019). Tourism Village Management in the Traditional Village of Kiadan Plaga Badung Bali Based on Traditional Villages (Tourism Law Perspective). *Community Service Journal (CSJ)*, 2(1), Article 1. <https://doi.org/10.22225/csj.2.1.2019.1-8>
- Chuamuangphan, N. J. P., Nipon. (2021). Governance and local participation in ecotourism: Community-level ecotourism stakeholders in Chiang Rai province, Thailand. In *Stakeholders Management and Ecotourism*. Routledge.
- Chuang, S.-T. (2010). Rural tourism: Perspectives from social exchange theory. *Social Behavior and Personality*, 1313–1322. <https://doi.org/10.2224/sbp.2010.38.10.1313>
- Coria, J., & Calfucura, E. (2012). Ecotourism and the development of indigenous communities: The good, the bad, and the ugly. *Ecological Economics*, 73, 47–55. <https://doi.org/10.1016/j.ecolecon.2011.10.024>
- Creswell & John W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. Singapore: Sage Publication.
- Duleba, S. (2022). Introduction and comparative analysis of the multi-level parsimonious AHP methodology in a public transport development decision problem. *Journal of the Operational Research Society*, 73(2), 230–243. <https://doi.org/10.1080/01605682.2020.1824553>
- Hariato, S. P., Masruri, N. W., Winarno, G. D., Tsani, M. K., & Santoso, T. (2020). Development strategy for ecotourism management based on feasibility analysis of tourist attraction objects and perception of visitors and local communities. *Biodiversitas Journal of Biological Diversity*, 21(2), Article 2. <https://doi.org/10.13057/biodiv/d210235>
- Hasana, U., Swain, S. K., & George, B. (2022). A bibliometric analysis of ecotourism: A safeguard strategy in protected areas. *Regional Sustainability*, 3(1), 27–40. <https://doi.org/10.1016/j.regsus.2022.03.001>
- Henri, H., & Ardiawati, S. (2020). Ecotourism Development Of Munjang Mangrove Forest And Conservation Efforts Based On Community Approach. *Biolink (Jurnal Biologi Lingkungan Industri Kesehatan)*, 7(1), Article 1. <https://doi.org/10.31289/biolink.v7i1.2952>
- Hikmah, N., Larasati, E., Purnaweni, H., & Yuniningsih, T. (2020). *Identification and Role of Stakeholders in Ecotourism Development in Indonesia*. 257–262. <https://doi.org/10.2991/assehr.k.201219.039>

- Hosseini, S. M., Paydar, M. M., & Triki, C. (2021). Implementing sustainable ecotourism in Lafour region, Iran: Applying a clustering method based on SWOT analysis. *Journal of Cleaner Production*, 329, 129716. <https://doi.org/10.1016/j.jclepro.2021.129716>
- Howitt, D. (2019). *Introduction to Qualitative Research Methods in Psychology*. Pearson UK.
- Huang, C. C., Li, S. P., Chan, Y. K., Hsieh, M. Y., & Lai, J. C. M. (2023). Empirical Research on the Sustainable Development of Ecotourism with Environmental Education Concepts. *Sustainability*, 15(13), 13. <https://doi.org/10.3390/su151310307>
- Kamaludin, K., Antonius, A., Emanuel, V., Nikodimus, N., Sinaga, M., & Setiawan, H. (2020). Strategy Formulation of Balek Angin Lake as an Ecotourism Attraction to Support Sintang Regency's Sustainable Development Program. *Journal of Indonesian Tourism and Development Studies*, 8(3), 3. <https://doi.org/10.21776/ub.jitode.2020.008.03.06>
- Khaeriah, R. H. M. K. (2021). Sustainable Tourism Development in Tangerang City: How to Build a Community-Based Ecotourism Concept. *Enrichment: Journal of Management*, 12(1), Article 1. <https://doi.org/10.35335/enrichment.v12i1.264>
- Kibria, A. S., Behie, A., Costanza, R., Groves, C., & Farrell, T. (2021). Potentials of community-based-ecotourism to improve human wellbeing in Cambodia: An application of millennium ecosystem assessment framework. *International Journal of Sustainable Development & World Ecology*, 28(5), 461–472. <https://doi.org/10.1080/13504509.2020.1855606>
- Kiper, T. (2013). Role of Ecotourism in Sustainable Development. In *Advances in Landscape Architecture*. IntechOpen. <https://doi.org/10.5772/55749>
- Kunjuraman, V. (2022). Local community participation challenges in community-based ecotourism development in Sabah, Malaysian Borneo. *Community Development Journal*, 57(3), 487–508. <https://doi.org/10.1093/cdj/bsaa065>
- Lasso, A. H., & Dahles, H. (2023). A community perspective on local ecotourism development: Lessons from Komodo National Park. *Tourism Geographies*, 25(2–3), 634–654. <https://doi.org/10.1080/14616688.2021.1953123>
- Mendoza-Ramos, A., & Prideaux, B. (2018). Assessing ecotourism in an Indigenous community: Using, testing and proving the wheel of empowerment framework as a measurement tool. *Journal of Sustainable Tourism*, 26(2), 277–291. <https://doi.org/10.1080/09669582.2017.1347176>
- Murungi, T. M. (2020). *Determinants of Sustainability of Community Based Ecotourism Development Projects in Kenya. A Case of Northern Rangeland Trust Conservancy, Meru County* [Thesis, University of Nairobi].

- Nalayani, N. N. A. H. (2016). Evaluation And Strategy for Development of Tourism Villages in Badung District, Bali. *Jurnal Master Pariwisata (JUMPA)*.
- Noh, M., N, A., Razzaq, A, A. R., Mustafa, Z, M., Nordin, N, M., Ibrahim, & B. (2020). Sustainable Community Based Ecotourism Development. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(9), 9.
- Nugroho, I., Hanafie, S., Negara, P., & Yuniar, H. (2020). Local Capacity Building in the Ecotourism Development. *International Journal of Innovative Technology and Exploring Engineering*, 9, 224–228. <https://doi.org/10.35940/ijitee.C1049.0193S20>
- Phelan, A. (Any), Ruhanen, L., & Mair, J. (2020). Ecosystem services approach for community-based ecotourism: Towards an equitable and sustainable blue economy. *Journal of Sustainable Tourism*, 28(10), 1665–1685. <https://doi.org/10.1080/09669582.2020.1747475>
- Phillips, R., & Pittman, R. H. (Eds.). (2009). *An introduction to community development*. Routledge.
- Rahayuningsih, T., Muntasib, E. K. S. H., & Prasetyo, L. B. (2016). Nature Based Tourism Resources Assessment Using Geographic Information System (GIS): Case Study in Bogor. *Procedia Environmental Sciences*, 33, 365–375. <https://doi.org/10.1016/j.proenv.2016.03.087>
- Salman, A., Jaafar, M., Mohamad, D., & Malik, S. (2021). Ecotourism development in Penang Hill: A multi-stakeholder perspective towards achieving environmental sustainability. *Environmental Science and Pollution Research*, 28(31), 42945–42958. <https://doi.org/10.1007/s11356-021-13609-y>
- Samal, R., & Dash, M. (2023). Ecotourism, biodiversity conservation and livelihoods: Understanding the convergence and divergence. *International Journal of Geoheritage and Parks*, 11(1), 1–20. <https://doi.org/10.1016/j.ijgeop.2022.11.001>
- Sobhani, P., Esmailzadeh, H., Wolf, I. D., Marcu, M. V., Lück, M., & Sadeghi, S. M. M. (2023). Strategies to Manage Ecotourism Sustainably: Insights from a SWOT-ANP Analysis and IUCN Guidelines. *Sustainability*, 15(14), 14. <https://doi.org/10.3390/su151411013>
- Staiff, N. P. S., Robyn Bushell, Mary Hawkins, Russell. (2021). Community-based ecotourism: Beyond authenticity and the commodification of local people. In *Stakeholders Management and Ecotourism*. Routledge.
- Stone, M. T. (2015). Community-based ecotourism: A collaborative partnerships perspective. *Journal of Ecotourism*, 14(2–3), 166–184. <https://doi.org/10.1080/14724049.2015.1023309>
- Sukuryadi, Harahab, N., Primyastanto, M., & Semedi, B. (2021). Collaborative-based mangrove ecosystem management model for the development of marine ecotourism in Lembar Bay, Lombok,

- Indonesia. *Environment, Development and Sustainability*, 23(5), 6838–6868. <https://doi.org/10.1007/s10668-020-00895-8>
- Sun, Y., Liu, B., Fan, J., & Qiao, Q. (2021). The multi-player evolutionary game analysis for the protective development of ecotourism. *Environmental Science & Policy*, 126, 111–121. <https://doi.org/10.1016/j.envsci.2021.09.026>
- Teshome, E., Shita, F., & Abebe, F. (2021). Current community-based ecotourism practices in Menz Guassa community conservation area, Ethiopia. *GeoJournal*, 86(5), 2135–2147. <https://doi.org/10.1007/s10708-020-10179-3>
- Wang, W., Feng, L., Zheng, T., & Liu, Y. (2021). The sustainability of ecotourism stakeholders in ecologically fragile areas: Implications for cleaner production. *Journal of Cleaner Production*, 279, 123606. <https://doi.org/10.1016/j.jclepro.2020.123606>
- Wearing, S., McDonald, M., Schweinsberg, S., Chatterton, P., & Bainbridge, T. (2020). Exploring tripartite praxis for the REDD + forest climate change initiative through community-based ecotourism. *Journal of Sustainable Tourism*, 28(3), 377–393. <https://doi.org/10.1080/09669582.2019.1676251>
- Wiratno, W., Withaningsih, S., Gunawan, B., & Iskandar, J. (2022). Ecotourism as a Resource Sharing Strategy: Case Study of Community-Based Ecotourism at the Tangkahan Buffer Zone of Leuser National Park, Langkat District, North Sumatra, Indonesia. *Sustainability*, 14(6), Article 6. <https://doi.org/10.3390/su14063399>
- Wiyono, W., Hidayat, R., & Oktalina, S. N. (2020). The Community Empowerment Strategy in Protected Forest Management through Community-Based Ecotourism Development in Kalibiru Village, Kulon Progo Regency. *HABITAT*, 31(1), Article 1. <https://doi.org/10.21776/ub.habitat.2020.031.1.2>
- Xu, L., Ao, C., Liu, B., & Cai, Z. (2023). Ecotourism and sustainable development: A scientometric review of global research trends. *Environment, Development and Sustainability*, 25(4), 2977–3003. <https://doi.org/10.1007/s10668-022-02190-0>
- Yekani Motlagh, E., Hajjarian, M., Hossein Zadeh, O., & Alijanpour, A. (2020). The difference of expert opinion on the forest-based ecotourism development in developed countries and Iran. *Land Use Policy*, 94, 104549. <https://doi.org/10.1016/j.landusepol.2020.104549>