

Do Peatlands in Central Kalimantan Have the Potential for Sustainable Ecotourism Development so That They Can Increase Regional Financial Income?

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Abstract

The purpose of this study was to identify and analyze the potential and strategy for developing peat areas as sustainable ecotourism objects. The research was conducted using a field explanation to see firsthand the potential of peat areas as ecotourism destinations. Primary data collection was carried out directly by means of interviews and questionnaires to 150 respondents by purposive sampling. Analysis of the data used the Guidelines for Assessment of Tourist Attractions Based on the ADO-ODTWA Guidelines of the Directorate General of PHKA, 2003. Meanwhile, the analysis of ecotourism development strategies for peat areas used SWOT analysis and Process Hierarchy Analysis. The results showed (1) Central Kalimantan peatland area is quite potential to be developed as an ecotourism destination. (2). The development strategy was chosen as a strategy of rapid growth and stable growth to improve the tourist visits to the peatlands, (3) The indicator of the attractiveness of the peatlands of Central Kalimantan as the first rank and the reason for tourists to visit ecotourism in the peatlands.

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INTRODUCTION

Peatlands are vital natural ecosystems that contribute significantly to biodiversity protection, climate management, and human well-being. Indonesia is the world's fourth largest country, with peat deposits covering 20.6 million hectares primarily in Sumatra, Kalimantan, and Papua New Guinea (Dohong, 2018). According to Government Regulation No. 57 of 2016 and Minister of Environment and Forestry Regulation No. 16 of 2017, the Peat Ecosystem Unit's geographic location is between two (two) rivers, between rivers and the sea, and/or in a swamp area. Indonesian peat covers 12.9 million hectares, or 45 percent of all tropical peat on the planet, and is scattered throughout seven provinces.

According to Dohong (2018), Indonesia's peat area is made up of 1.54 million hectares of open land, 6.1 million hectares of planted land, and 5.32 million hectares of forest land. Central Kalimantan's peat acreage is 4,675,105 hectares, or 55.62 percent of Kalimantan's total peat area of 8,404,8183 million. Protected functions span 2,555,107 hectares, or 54.7 percent of the peatland area, whereas cultivated functions cover 2,119,999 hectares, or 45.3 percent of the entire area of Central Kalimantan peatlands.

Indonesia's peat region is made up of 1.54 million hectares of open land, 6.1 million hectares of planted land, and 5.32 million hectares of forest land, according to Dohong (2018). Central Kalimantan has 4,675,105 hectares of peat, accounting for 55.62 percent of Kalimantan's total peat area of 8,404,8183 million hectares. Protected functions encompass 2,555,107 hectares, or 54.7 percent of the peatland area, whereas cultivated functions cover 2,119,999 hectares, or 45.3 percent.

According to Joosen and Clark (2002), the booming economic activities, such as logging, oil palm development, drainage development, conversion of peat swamp areas for activities, and fires, are the driving factors for the destruction and degradation, as well as the decline in the quality of the peatlands of Central Kalimantan. There is both land and forest. In 2015, significant and long-term forest and land fires impacted the peat forest ecosystem, increasing the risk of floods during the rainy season, diminishing and losing biodiversity, increasing CO₂, increasing fire susceptibility during the dry season, and raising costs. Community and government-borne economic and social issues (Dohong, 2017)

Efforts to restore degraded peat areas due to land and forest fires throughout Indonesia's peatlands, gave birth to government regulations with the issuance of Government Regulation (PP) Number 71 of 2014 concerning Protection and Management of Peat Ecosystems and Government Regulation Number 57 of 2016 concerning Amendments to Government Regulation Number 71/2014 concerning the Protection and Management of Peatland Ecosystems and Presidential Regulation No.1 / 2016 concerning the establishment of the Peat Restoration Agency are the main basis for implementing the restoration of the peat ecosystem, including restoration of damaged peat.

The peat forest region of Sebangau National Park was designated as a national peat conservation area by Decree of the Minister of Forestry No.SK. 423 / Menhut / II / 2004 with an extent of 568,700 hectares, resulting in the conservation of peat swamp forest in Central Kalimantan. In addition, the Sebangau National Park Office was named manager after creating a work program to manage and utilize tropical peat forest regions while adhering to conservation principles. The conservation principle in question is the use of environmental services in the peat forest area through the development of ecotourism and the notion of environmentally responsible tourism.

Because it features a black water lake or river environment, a habitat region for 25 species of animals, 116 species of borneo birds, 36 species of fish, and roughly 166 species of plants, the Sebangau National Park peat forest area has the potential for ecotourism development (Balai TNS, 2014). According to LIPI (2007), Sebangau National Park has a great diversity of flora and animals (high biodiversity), with 809 different types of vegetation and 128 different ethnic groupings (16 of which have not been identified). As a peatland ecotourism destination, Sebangau National Park offers natural tourism attractions, research activities, and educational excursions as part of the concept of sustainable development. It becomes a draw for domestic and international tourists to visit Sebangau National Park as a peat forest area that fosters the concept of ecotourism. Tourist visits to Sebangau National Park increased significantly between 2011 and 2018, as seen in Figure 1.

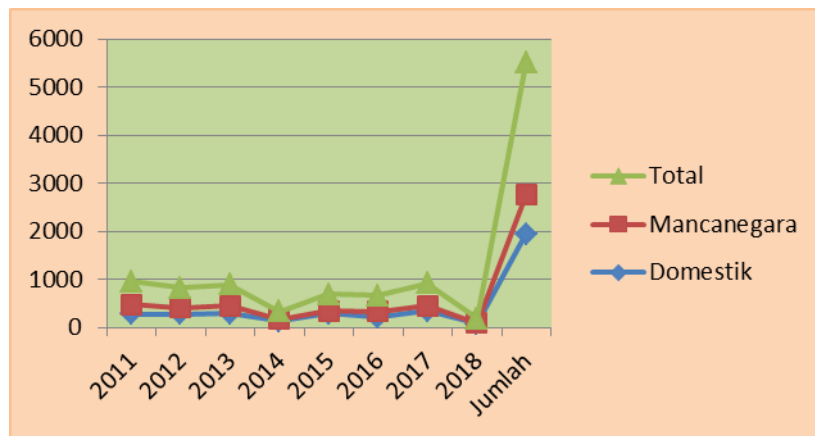


Figure 1. Tourist Visit to Sebangau National Park in 2011-2018

Figure 1.1 shows that the number of domestic and foreign tourists visiting TNS in 2011 was 477 people, decreasing to 458 people. In total, tourist arrivals decreased by 4.15%, which was triggered by a decrease in foreign tourists from 194 people in 2011 to 115 in 2017. Meanwhile, domestic tourist visits during the 2011-2017 period increased by 21.20%. The number of domestic and foreign tourists has fluctuated due to: natural factors, lack of promotion, transportation and lack of infrastructure support, especially inadequate road facilities. The empirical condition of the low level of tourist visits to the peat forest area of Sebangau National Park, which is not comparable to the potential of existing biodiversity, is a major problem in developing ecotourism in Sebangau National Park and as the main problem in the study.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Literature Review

Ecotourism Development

Ecotourism (Satria, 2009) is a notion that is synonymous with conservation efforts, empowering local economies, and culture. The concept of ecotourism differs from traditional tourism models because of its identity. Simply described, ecotourism is a concept that combines natural tourism with a vision and objective of environmental conservation and love. According to Satria (2009), travel expenditures provide financial benefits that are used to meet the needs of nature conservation and enhancing the wellbeing of local populations.

The evolution of the concept of global tourism to an ecotourism model is due to the saturation of tourists visiting artificial tourist objects. This shift in tourist behavior and mindset is an opportunity that must be exploited to the fullest degree feasible in order to attract foreign tourists to visit natural and culturally significant sites. Furthermore, Mosammam et.al., (2016) said that ecotourism is a form of tourism which does not only mean a trip to nature, but also a tourism activity that seeks to create a balanced relationship between humans, nature and local communities as well as tourists. Thus it can be concluded that Sebangau National Park which has high biodiversity has a good opportunity to be developed as an ecotourism destination for people who love nature and the environment. In line with that, Arjana (2015) states that an area that has high and unique biodiversity can be developed as ecotourism and agronomy.

Andy et al (2005) stated that the implementation of ecotourism requires different infrastructure from conventional tourism arrangements, particularly with regard to accommodation and food services for visitors. Furthermore, according to Andy et al (2005) for natural areas, ecotourism infrastructure must blend in with the surrounding environment, use mostly renewable energy sources and manage waste and food waste without damaging the surrounding environment. In terms of ecotourism development, Kiper (2013) says that the principles and standards must be applied by those who develop ecotourism, planning area-based ecotourism product development, as a special matter in the marketing concept. This means that the development of forest-based ecotourism prioritizes the principle of conservation that utilizes local potential for accommodation and consumption needs while maintaining environmental sustainability.

Sustainability Ecotourism

The world conference in the field of environment (Globe'90) in Vancouver Canada, indicated that there was a shift in tourist behavior from mass tourism to special tourism. Suradnya (2005) stated that the shift in tourist behavior is an evolution that leads to a paradigm shift regarding destination choice. In the context of sustainable tourism, the main objective is how to optimize the readiness of unique and natural destinations through the development of ecotourism. Thus, sustainable tourism is synonymous with ecotourism and it is very possible to develop optimally, because it is supported by natural resources or its huge potential biodiversity. In terms of the development of the tourism sector including ecotourism, Tantra (2014) emphasizes that it is necessary to carry out a comprehensive development pattern, taking seriously the condition and potential of the area, both natural, environmental and human. This means that the sustainable development pattern played by the development of ecotourism always reflects the preservation of natural resources and the continuous fulfillment of human needs. Furthermore, Irawan (2022) states that the sustainability of ecotourism development in peat areas is Tourist Product and Uniqueness of the Environment development variables to influence of Sustainable Ecotourism. The development of tourism and ecotourism is not only focused on how to manage the potential of existing natural resources to maintain environmental functions through conservation activities, but can also create economic benefits through the economic values enjoyed by tourists in a destination which can benefit from the management of these natural resources. The principle of ecotourism that provides economic benefits to the host country, especially the people who live around the ecotourism area. Honey (1999) in Cobbinath (2015) shows that one of the fundamental goals of ecotourism is to stimulate economic development at both the local and national levels.

The economic benefits of developing ecotourism are the creation of a multiplier effect through employment, souvenir businesses, homestays, travel agents, tour guides and so on. The increasing number of people involved in the tourism system illustrates that ecotourism can be a driving force for the economy of the community from various walks of life including the involvement of women in ecotourism endeavors. In relation to conservation efforts towards sustainable ecotourism development, Cobbinath (2015) said that the increasing awareness of the application of ecotourism as a tourism development in an area, this approach should be able to create jobs, and generate funds for the management and conservation of nature and protected areas. Not only that, Ecotourism can also capture and empower vulnerable groups, especially women, who make up the majority of the population of tourist attraction areas in developing countries. (Cobbinath 2015).

In order to achieve sustainable ecotourism development, Gufran (2008) states that there are several minimum criteria in the development of ecotourism, namely: (1) the preservation and uniqueness of ODTW including efforts to conserve flora, fauna, natural beauty and maintain the cultural uniqueness of local communities, (2) accessibility to and within the area, or transportation facilities and infrastructure, (3) security while traveling and insurance, (4) minimum infrastructure such as a rest area (gazebo), toilets, (5) institutions and regulations, (6) tourism business (travel agents, travel writers), (7) relationships with other ODTWs, (8) minimum impact on the environment, (9) promotion, (10) tourism carrying capacity, (11) community empowerment, (12) economic contribution (total tourist expenditure), (13) education.

Referring to the statement of Gufran (2008) above, in sustainable ecotourism management it is very important for every ecotourism area manager to pay attention to and implement these criteria consistently to maintain the sustainability of demand for ecotourism destinations in the future.

Ecotourism Development Strategy

The development of ecotourism basically puts forward environmental sustainability aspects, empowering communities around the area to arrive at the concept of sustainable development which is the final target of a development process. To achieve this, the right strategy is needed so that the implementation of ecotourism development can run well and provide benefits to environmental sustainability and fulfill community needs in a sustainable manner. Purwanti (2010) recommends the selection of an ecotourism development concept based on several main elements, namely: (a) ecotourism is very dependent on the quality of natural resources, historical and cultural heritage; (b) ecotourism involves the community, (c) ecotourism increases awareness and appreciation of nature, historical and cultural heritage values; (d) growing ecotourism market at international and national levels; and (e) ecotourism as a means of realizing a sustainable economy.

In the context of conservation as the basis for implementing ecotourism development, Agrawal and Redford (2006) offer an ecotourism development strategy that empirically plays a role in 4 conservation indicators, namely conservation financing, conservation education, conservation ethics, and resource conservation. As for the issue of poverty, ecotourism contributes to increasing the level of income of local communities, increasing the number of people working, improving infrastructure, and local participation.

The development of ecotourism has the aim of preserving nature and culture as well as the welfare of the community, especially local communities. Meanwhile, the utilization is only carried out on aspects of aesthetic services, knowledge (education and research) on ecosystems and biodiversity, as well as the use of pathways for tracking and adventuring (Hakim, 2004). Ecotourism is a tourism activity that is considered a sustainable tourism activity. Wijayanti (2008) suggests that ecotourism activities are different from other tourism activities. Ecotourism has specific characteristics because of its concern for environmental conservation and providing economic benefits for local communities. Furthermore, Sunaryo (2013) states that in order to realize a well-managed and well-managed tourism development strategy, the most basic thing to do is how to facilitate the broad involvement of the local community in the development process and maximize the social and economic benefits of tourism activities for the local community. besides that, its relation to the tourist market segment for the millennial group, things that need to be considered are the factors that attract millennial tourists to visit ecotourism, namely tourism products, environmental uniqueness (Irawan, 2020)

Hypothesis development

Taking into account the problems and objectives to be achieved from this research, the proposed hypothesis is as follows:

H-1 That the peatland area in Central Kalimantan has the potential to be developed as an ecotourism destination.

H-2 That the ecotourism development strategy in the peat area is a growth strategy.

H-3 That the attractiveness factor is the driving force for tourist visits to peat areas in Central Kalimantan.

METHODS

This study is explanatory quantitative descriptive, which is a research method that attempts to describe a phenomenon or a relationship between two phenomena in a systematic, factual, and correct manner (Natsir, 1998). The survey and observation approach was utilized in this study, with questionnaires being used to collect data on the variables evaluated. The respondents provided primary data for this study, and the sample was determined using a nonprobability sampling methodology called convenience sampling with an accidental sampling method to anyone who happened to be in the research region (Sugiyono, 2012). The number of samples (tourists and locals) is calculated using the Slovin algorithm with a 5 percent error limit and 95 percent data accuracy, resulting in 150 respondents selected by simple random sampling. The Slovin formula is used in data collecting for interviews and questionnaires.

$$n = \frac{N}{1 + Ne^2}$$

Information :

n = Number of respondents

N = Number of population (number of households)

e = fault tolerance limit = 5%

Analytical techniques should be utilized in the preparation of the potentation analysis, assesement of strategy development of Sebangau National Park peat forest area, by ADO-ODTW (Dirjen PHKA 2003), SWOT (Rangkuti, 2009) and Process of Analitical Hierarchy (AHP). The analysis of the ecotourism development position diagram produces a picture based on the quadrants generated by the SW vector line and the OT vector line, each of which has a main strategy formula. The position of a tourism object or area of Sebangau National Park ecotourism can be changed as shown in the diagram below.

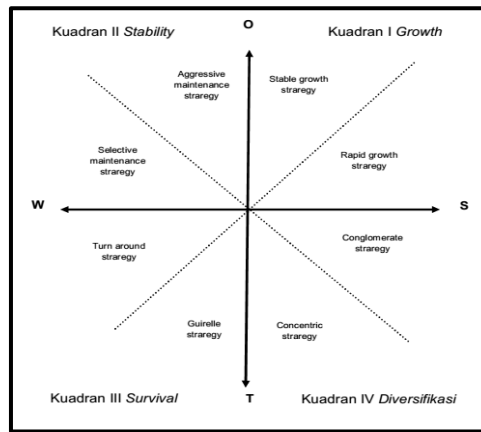


Figure 2. Ecotourism Development Position Model
(Souce: H. Oka A. Yoeti, 1996 dalam Kartini La Ode Unga, 2011)

RESULTS AND DISCUSSIONS

Analysis of the potential of the Sebangau National Park Ecotourism peatland destination

The peat area of Sebangau National Park has the potential for ecotourism objects, namely nature tourism or ecological tourism. The main supporters of ecotourism are the natural and ecological tourism destination (ODTWAE) Koran River located in Palangka Raya City, the natural and ecological tourism destination (ODTWAE) SSI Field Research Station / Mangkok River located in Pulang Pisau Regency and regional objects. natural and ecological tourism destination (ODTWAE) Punggualas River, Keruing Village, Kamipang District in Katingan Regency.

Potential ecotourism objects in the Sebangau National Park peat area, namely nature tourism or ecological tourism, the ecotourism objects referred to are the Koran River destination, Palangka Raya City, SSI Field Research Station / Mangkok River destination, Pulang Pisau Regency, and the Punggualas River destination. Keruing Village, Kamipang District in Katingan Regency. An analysis of the potential destinations of the Sebangau National Park peat area is described as follows:

The following table describes an analysis of the potential and attractiveness of the Koran River tourism object, which includes the potential of flora and wildlife, as well as supporting amenities and infrastructure to support the growth of the Koran River tourism object:

Table 1. The Potential Analysis of TNS Peat Areas (Sungai Koran Destination)

Elements /indicators	Value of Element / indicators
Attractiveness	150
Attractions	150
Accessibility	60
Accommodation	100
Availability Water	60
Facilities and Infrastructure	125
Total Value of element/parameter	495

Source : primary data 2019, processed

The potential of Sungai Koran destination have seen from 6 indicators / elements such as attractiveness, attractions, accessibility, accommodation, availability of water and facilities and infrastructure shows good readiness, where the criterion value is 495 (criteria range 480-659), including category B or Quite Potential to be developed as a tourist destination for the peat area of Sebangau National Park.

Mangkok river as tourism destination, seen from the potential of flora and fauna as well as the support of existing facilities and infrastructure, has the opportunity to be developed as a destination for adventure tourism, educational / research tourism. The following describes the results of the analysis of the potential and attractiveness of the Mangkok river tourism object.

Table 2. The Potential Analysis of TNS Peat Areas (Mangkok Destination)

Elements /Indicators	Value of Elements/Indicators
Attractiveness	150
Attraction's	150
Accessibility	10
Accommodation	60
Availability Water	60
Facilities and Infrastructure	60
Total Value of element/indicators	490

Source : primary data 2019, processed

The results of the analysis of the potential of the Sunga / SSI Mangkok tourism object are seen from 6 indicators / elements such as attractiveness, attractions, accessibility, accommodation, availability of clean water and facilities and infrastructure of 490 (value range 480-659), category B with the meaning of Enough Potential is developed as adventure and educational ecotourism destinations in peat area forest Sebangau National Park.

The high potential of Flora and Fauna (Biodiversity) and the availability of facilities and infrastructure for the Punggualas tourist destination are the basis for the development of potential tourism objects in the peat forest area of Sebangau National Park. The results of the analysis of the potential and attractiveness of Punggualas tourism object are described in the following table:

Table 3. The Potential Analysis of TNS Peat Areas (Punggualas Destination)

Elements/Indicators	Value of elements/indicators
Attractiveness	150
Attraction's	100
Accessibility	30
Accommodation	100
Availability Water	60
Facilities and Infrastructure	60
Total Value of element/indicators	495

Source : primary data 2019, processed

Analysis of the potential attractiveness of the Punggualas tourist destination shows an element or indicator value of 495 (from the range 480-659), category B ensures that the Punggualas destination is Potential enough to be developed as an ecotourism destination for the Sebangau National Park peat swamp forest. Considering the findings of the potential and attraction of the three ecotourism destinations (Sungai Koran, Mangkok, and Punggualas), as well as category B,, it shows that the three ecotourism destinations conclude that the Sebangau National Park peat swamp area can be developed as an ecotourism destination in Central Kalimantan.

SWOT analysis of Sebangau National Park Ecotourism peatland destination

The Element of Strength

The peat area of Sebangau National Park has ten strengths if it is to be developed as an ecotourism destination, through consideration of its existence, as well as outside the Sebangau National Park object. The existence of Sebangau National Park is strategic because it is a tropical peat conservation ecosystem that supports the growth and development of plants on it, high biodiversity and the uniqueness of black water in the area. The following table presents the results of a SWOT analysis of the TNS peat area in terms of its STRENGTH.

Table 5. Strength factor of the Sebangau National Park peat ecotourism object

Internal Factors	Average	Evidence
Strength		
The peat ecotourism object in Sebangau National Park is very essential to develop.	3,78	High
Sebangau Forest Reserve tropical peat swamp environment.	3,78	High
Peat ecotourism in Sebangau National Park is beautiful and rich in biodiversity.	4,07	High
Peat ecotourism in Sebangau National Park is a exotic peatland habitat.	3,78	High
Sebangau National Park peat ecotourism is branded as a tourist destination in Central Kalimantan	4,01	High
Peat ecotourism in Sebangau National Park is being developed as an ecotourism development destination in Central Kalimantan.	3,73	High
The policies of the government contain a clear vision, mission and objectives of tourism development	4,09	High
Government policies are simple to implement in places with tourism potential.	3,74	High
The government's policies usually involve tourism development strategies.	4,04	High
Sebangau National Park management have a technical document	4,99	High
Average	4,00	High

Source : primary data 2019, proceed

Table 5 shows that the strength value above the average strength (4.00 = high) regarding the Sebangau National Park ecotourism area is indicated by the following factors: (a) high beauty and biodiversity, (b) as a tourist destination in Central Kalimantan, (c) Local government policies that reflect a clear vision and mission of tourism development, (d) Tourism development initiatives are included in government policy. and (e) the Sebangau National Park ecotourism area has a complete management technical document. It can be concluded comprehensively that the Sebangau National Park peat ecotourism area has a high strength as a basis for developing peat ecotourism to improve the in the national tourist constellation, the performance of the tourism sector in Central Kalimantan Province.

The Elements of Weakness

The peat ecotourism area of Sebangau National Park offers potential tourism services, but it has weaknesses such as a lack of information about attractions, as well as weak marketing of tourism objects. The following describes the results of the SWOT analysis of the elements of weakness found in the development of Sebangau National Park peat ecotourism.

Table 6. Weakness factor of the Sebangau National Park peat ecotourism object

Internal Factors	Average	Evidence
Weakness		
Tourism infrastructure and accompanying facilities are not yet optimally available.	3,31	Low
The tourism object development program is still simple	3,97	Low
Tourism object marketing is not optimal	4,25	Very low
Information on tourist attractions is inadequate	3,68	Low
Not yet having adequate capacity and still at least capital for developing tourism objects	2,97	Very low
Public awareness of protecting the environment is still low	4,02	Very low
The facilities and infrastructure for the Sebangau National Park peat area are still limited.	1,67	Very high
Climatic factors affect access to the Sebangau National Park peat areas	3,49	Very low
Average	3,42	Low

Source : primary data 2019, proceed

In general, the element value of the Weaknesses of the Sebangau National Park peat ecotourism object is low (average 3.42), where there is one element that has a very high weakness, namely the facilities and infrastructure in the Sebangau National Park peat area. Access to the area still relies on the water transportation

routes of the Sebangau River and the Katingan River. Another weakness is the lack of telecommunication facilities, the absence of an internet network in the Sebangau National Park area.

The Elements of Opportunity

In the peat region of Sebangau National Park, there are eleven chances for the development of ecotourism objects on a scale ranging from high to extremely high. Existing tourism products have the potential to be turned into sustainable natural tourism products, which can be created and utilized based on existing qualities and potential., biodiversity and natural uniqueness such as black water as great potential and opportunities for tourism development, open infrastructure and accessibility, as well as other facilities. The following describes the results of the SWOT analysis of the elements of weakness found in the development of Sebangau National Park peat ecotourism.

Table 7. Opportunity factor of the Sebangau National Park peat ecotourism object

External Factors	Average	Evidence
Opportunity:		
Existing tourism products have the potential to be converted into ecotourism products that are sustainable.	3,59	High
The peatlands of Central Kalimantan National Park's object of tourism destination (ODTW) has the opportunity to be advanced and utilized in accordance with the current characteristics and potentials.	3,63	High
The establishment of ecotourism in Sebangau National Park's peat area will also support the surrounding community's economy.	4,15	Very high
Biodiversity and the uniqueness of nature that exist in it holds a major deal of tourism potential.	3,59	High
For the local community, the Sebangau National Park item gives business prospects.	4,05	Very High
Opening up infrastructure and accessibility.	3,56	High
Can create job opportunities		
Can create job opportunities	4,18	Very high
The present Sebangau National Park's potential can be promoted.	3,57	High
Tourist trips to Sebangau National Park have increased in popularity.	4,14	Very High
The community has provided natural tourism attractions	3,04	High
Average	3,75	High

Source : primary data 2019, proceed

The potential for the peat ecotourism region of Sebangau National Park to become a tourist destination that benefits the neighboring community's actual economy., especially culinary delights such as in Kereng Bangkirai Village as the entrance to the Koran River tourist location, river transportation services in the form of small boats specially organized to serve tourists, selling souvenirs including arts and cultural attractions around the Sebangau National Park peat ecotourism site.

The Elements of Threat

Behind the large opportunities for the Sebangau National Park peat ecotourism object, there are five threats to the environmental sustainability of Sebangau National Park and its surroundings. Overall, the threat is low, but it needs to be monitored because it is natural and can change drastically which leads to a decrease in the environmental quality of the Sebangau National Park peat forest. These threats are forest encroachment, forest and land fires around Sebangau National Park, the rampant development of oil palm plantations around the Sebangau National Park and the development of tourist areas in other places. The following describes the results of the SWOT analysis of the elements of threat in the development of Sebangau National Park peat ecotourism.

Table 8. Threat factor of the Sebangau National Park peat ecotourism object

Internal Factors	Average	Evidence
Threat:		
The high or rampant forest encroachment activities around the Sebangau National Park peat ecotourism area	3,59	Low
Vulnerable to forest and land fires	3,61	Low
The development of natural ecotourism object areas in other places	3,71	Low
The development of oil palm plantations around the peat area of Sebangau National Park	3,44	Low
Hunting and catching are intensive of protected animals	4,22	Very low
Average	3,71	Low

Source : primary data 2019, proceed

In general, the threat factor to the existence of Sebangau National Park peat ecotourism is low, but it needs to be considered and not underestimated, for example the encroachment of the Sebangau National Park peat forest area can threaten the lives of animals that are protected by law, such as orangutans, proboscis monkeys, bears and other animals.

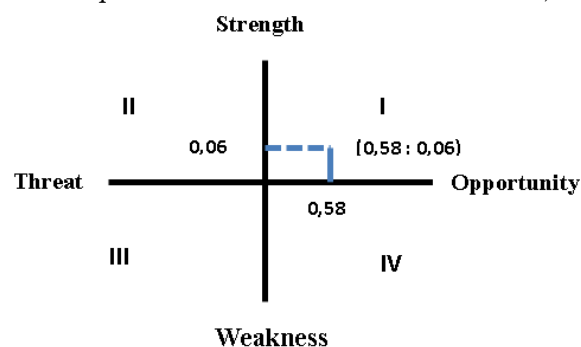
The results of the SWOT analysis of the Sebangau National Park peat ecotourism show a strategic position in the management of the TNS peat ecotourism area in the table as follows:

Table 9. Result of SWOT Analysis of peat Ecotourism Sebangau National Park

Factors	Minimum Value	Maximum Value	Average	Evidence
Strength	3,73	4,09	4,00	High
Weakness	1,67	4,25	3,42	Low
Opportunity	3,04	4,18	3,75	High
Threat	3,44	3,71	3,71	Low

Source : primary data 2019, proceed

Table 8 shows that in the high category, the strength factor has a score of 4.00. and the average value of the weakness factor is 3.42 for the low category, so that the coordinates of opportunities and threats for the development of peatland ecotourism Sebangau National Park are in quadrant I with a value 0.58 as axis X. Meanwhile, the opportunity factor value of Sebangau National Park peat ecotourism is 3.75 on average, high category, and the average threat factor value is 3.71 in low category. The coordinate point between the opportunity and the threat is located in quadrant I with a value = 0.06 as axis Y, the figure below :



Analysis of the Rank Options of Visits to Sebangau National Park peatlands eco tourism

Overall the choices of experts regarding priority matters for visiting Sebangau National Park as seen in the following table show that attraction is the main choice (31.3%), then cost (21.9%), distance (20.7% %), facilities (11.8%), security (8.9%) and finally transportation (5.5%). Below table 10 showing the result of analysis rank option to visit Sebangau National Park peat Ecotourism :

Table 10. Result of Analysis Rank Option to Visit Peatlands Ecotourism in Sebangau National Park

Preference	Grade	Percentage	Rank
Magnetism	0,313	31,3	1
Distance	0,219	21,9	2
Amenities	0,207	20,7	3
Cost	0,118	11,8	4
Security	0,089	8,9	5
Transportation	0,054	5,4	6
Total	1,00	100	

Source : primary data 2019, proceed

Based on the results of ranking analysis through the Analytical Hierarchy Process (AHP) approach to the existence of Sebangau National Park peat ecotourism, the first is attractiveness, distance, facilities, costs, security and finally transportation. Where the attractiveness factor of 31.1 percent of experts stated that it was the determining factor to encourage tourists to visit the Sebangau National Park peat ecotourism area.

CONCLUSIONS

The potential attraction of peatland ecotourism destination in Sebangau National Park peatlands, the Sungai Koran, Resort Mangkok and Punggualas destination, including category B, is quite potential to be developed as an ecotourism object in Central Kalimantan.

The strategy for developing Sebangau National Park peat ecotourism is in quadrant I or the Growth strategy, with the intention that the strategy is designed to achieve the growth of Sebangau National Park peatlands ecotourism both in managing the existing potential (assets), in order to increase the number of visits through the Rapid Growth Strategy and the Stable Growth Strategy.

The results of the ranking analysis of the choice of tourists or experts on the motivation of visiting the Sebangau National Park peatlands ecotourism, put the Attractiveness indicator as the first rank as the main reason tourists visit to ecotourism peatlands.

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REFERENCES

- Andy Drumm, Alan Moore, Andrew Soles, Carol Patterson, John E. Terborgh. The Business of Ecotourism Development and Management
- Agrawal A, Redford K. 2006. Poverty, Development and Biodiversity Conservation: Shooting in the Dark. WCS Working Paper Nomor 26. New York: Wildlife Conservation Society. <http://www.wcs.org/science> [1 Juli 2009].
- Arjana, I Gusti Bagus. (2015). Geografi Pariwisata dan Ekonomi Kreatif. Jakarta: Rajawali Pers.
- Cobbinah, Patrick Brandful. 2015. Contextualising the meaning of ecotourism. *Tourism Management Perspectives* 16, p. 179–189
- Dohong, Alue. 2017. Best Practices On Peatland Restoration On The Ground In Indonesia: Brg-Icctf Funded Support. Badan Restorasi Gambut.
- Dohong Alue, 2018. A Review of Techniques for Effective Tropical Peatland Restoration. *Wetlands Official Scholarly Journal of the Society of Wetland Scientists* ISSN 0277-5212
- Gufran Darma Dirawan. 2008. Strategi Pengembangan Ekowisata. *Jurnal Kepariwisata Indonesia* Vol.3 Maret 2008. ISSN : 1907-9419.
- Hakim, Lukman. 2004. Dasar-dasar Ekowisata. Malang: Bayumedia
- I Made Suradnya, 2005. Analisis Faktor-Faktor Daya Tarik Wisata Bali Dan Implikasinya Terhadap Perencanaan Pariwisata Daerah Bali. Sekolah Tinggi Pariwisata Bali.

- Irawan , Andrie Elia, 2020. Do the Ecotourism Destination Interesting for Millennial Tourism?. *International Journal of Engineering Research and Technology*. ISSN 0974-3154, Volume 13, Number 12 (2020), pp. 4569-4579
- Irawan, Andrie Elia, 2022. Sustainable Development Thought Ecotourism Development at Tanjung Putting National Park. *The Sybold Report*. V 17/ I 11. 2440 -2452. DOI 10.5281/zenodo.7404730
- KemLH&K 2017. *Desain Tapak Pengelolaan Pariwisata Alam Taman Nasional Sebangau*. Dirjen KSDA & Ekosistemnya. ISBN: 978-979-18721-2-6
- Mosammam et al., 2016. Typology of the Ecotourism Development Approach and an Evaluation from the Sustainability View: The case of Mazandaran Province, Iran. *Tourism Management Perspectives* 18, p. 168–178.
- Rangkuti, F. (2009). *Analisis SWOT Teknik Membedah Kasus Bisnis*, PT. Gramedia Jakarta: Pustaka Utama.
- Satria, 2009. Strategi Pengembangan Ekowisata Berbasis Ekonomi Lokal Dalam Rangka Program Pengentasan Kemiskinan di Wilayah Kabupaten Malang. *Journal of Indonesia Applied* Vol. 3, No. 1 Mei 2009, Hal 37 – 47.
- Sugiyono, (2012). *Metode Penelitian Kuantitatif, Kualitatif dan Kombinasi (Mixed Methods)*. Bandung: Alfabeta.
- Suyatno, Mustafid, dan Sugiarto, A. 2011. Rancang Bangun Sistem pendukung Keputusan untuk Pemilihan Gagasan dengan Metode Analytical Hierarchy Process (AHP). Diakses 11 Juni 2014. Available from: <http://eprints.undip.ac.id/29577/1/suyatno.pdf>
- Sunaryo, Bambang. (2013). *Kebijakan Pembangunan Destinasi Pariwisata Konsep dan Aplikasinya di Indonesia*. Yogyakarta: Gava Media.
- Tugba Kiper. 2013. Role of Ecotourism in Sustainable Development. Additional information is available at the end of the chapter. <http://dx.doi.org/10.5772/55749>
- Wijayanti, P. (2008). Analisis Ekonomi dan Strategi Pengelolaan Ekowisata (Studi Kasus: Kawasan Wisata Gunung Salak Endah Kab. Bandung). *Jurnal Ilmu Pertanian Indonesia*. Vol. 13, No. 3:173-181.