

Ecotourism Management Strategy of Peat Swamp Forest in Baning Nature Tourist Park Area in West Kalimantan Indonesia

Antonius¹, Agus Suman², Amin Setyo Leksono³, Harsuko Riniwati⁴

¹(Environmental Science Study Program, Universitas Brawijaya, Indonesia)

²(Economics Department, Faculty of Economic and Business Universitas Brawijaya, Indonesia)

³(Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Brawijaya, Indonesia)

⁴(Socio-economic Study Program, Faculty of Fisheries and Marine Science, Universitas Brawijaya, Indonesia)

Corresponding Author: Antonius

Abstract : The objective of this study is to develop ecotourism management strategies of peat swamp forest in Baning Nature Tourist Park (NTP) Area in West Kalimantan Indonesia. Data collection was conducted through the field surveys, questionnaires, interviews and secondary data. This study identified seven strengths, five weaknesses, six opportunities, and four threats. The specificity and rarity of endemic flora and fauna species of peat swamp forest was the highest strength, while the forest encroachment by people around the region was the highest weakness. The result of quantitative analysis obtained the coordinate number was occurred in quadrant I (1.39: 0.91) that was the aggressive strategy. Local government support for the ecotourism development of Baning NTP was the highest opportunity, while insufficient government budget allocation for ecotourism development was the highest threat. Socialization programs, promotion, cooperation, community participation in the event of no development strategies for the purpose of realizing ecotourism that must emphasize supervision, conservation and protection of peat swamp forest.

Keywords - strategy, management, tourism, peat swamp forest

Date of Submission: 12-01-2018

Date of acceptance: 03-02-2018

I. Introduction

As a result of the growth of nature-based tourism, conservation area have become important tourist attractions [1,2], because it has the diversity of flora and fauna, beautiful natural phenomena, cultural objects and history as well as the unique life of local people. Indonesia has tremendous of natural resources, such as forests, waterfalls, rivers, craters, grasslands, caldera, and lakes which is very promising to develop ecotourism.

Based on the Statistics of the Ministry of Environment and Forestry on the Appointment of Forest and Water Areas, the Area of Sanctuary and Nature Conservation Area in Indonesia covering 27,434,341.27 hectares, of which there are in West Kalimantan Province of 1,621,046.00 hectares. One of the Conservation Areas in West Kalimantan is Baning Nature Tourist Park (NTP) which covers of 213 hectares area.

Recently, the development of strategic planning of tourism in rural areas has received attentions from government and society in order to manage sustainable tourism [3,4]. The latest issue in sustainable tourism argues that the management of comprehensive objectives is important to create a balanced between economic needs and environmental conservation. The utilization of Baning NTP as a peat swamp forest ecosystem to be developed into one of the ecotourism areas is a very rational utilization alternative implemented in the present, because it can provide economic benefits and environmental services without exploiting the natural resources in it. The forest as a renewable resource must be managed based on sustainable basis in which the benefits of ecological, economic and social. This sustainable basis must sustain the balance and equity between optimum forest products and services in fulfill the needs of recent generation without destruction of future generation needs. That means the nature utilization avoid undesirable effects on the physical and social environment [5]. Therefore, management of natural resource in conservation area must involve local people [6]

Ecotourism in the area of Baning NTP can be as the alternative of ecotourism development in increasing Non-Tax Revenue. In order to realize the policy of the Director General of Forest Protection and Nature Conservation (FPNC) particularly the increase of Non-Tax State Revenue, thus, the Director-General of FPNC gave wide opportunities to the various parties such State Owned Enterprises (SOEs), private companies, Cooperatives and individuals to conduct tourism development in conservation areas [7]. Any ecotourism business in Baning NTP area is obliged to involve the citizens or the local people, especially around the area. Through the local people, it is expected to increase public awareness to play an active role in doing serious efforts to conserve natural resources.

The Baning NTP area has the potential of authenticity, the beauty of comfort, hygiene and security as a peat swamp forest ecosystem to be developed as an ecotourism area and become one of the destinations of natural attractions of Sintang for the local people as well as the foreign tourists. Therefore, Baning NTP has the opportunity to be developed based on the natural potential and the potential of local culture. To make Baning NTP as a tourist destination, the management must have the right management strategy, so that the conservation of Baning NTP area as a peat swamp forest ecosystem remains sustainable and the surrounding communities has improved the welfare of their life because of the ecotourism management and business. The objective of this study is to develop ecotourism management strategies of peat swamp forest in Baning NTP Area in West Kalimantan Indonesia.

II. Method

The approach used in this study is descriptive analysis through quantitative approach to get an overview of the phenomenon occurring in the field as the basic data for formulating the strategies of ecotourism management in a sustainable manner.

2.1 Location

The study site was located in Baning Nature Tourist Park Area, District of Sintang, West Kalimantan Indonesia. The research location map is viewed in Figure 1.

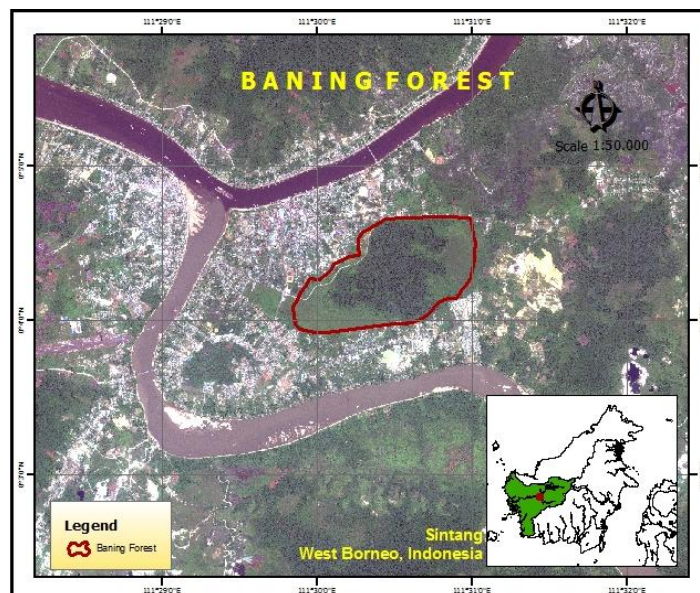


Fig. 1. Baning Nature Tourist Park Area

2.2 Data Collection Method

Data were collected using survey methods in the form of a checklist to record all the physical potential of the area and the culture of the local community; physical potential of peat decline phenomenon, flora and fauna potential. Meanwhile, the cultural potentials surveyed were the art of dance, culinary, daily life, and local wisdom. The sample used purposive sampling technique, that the samples taken intentionally to the community that was considered capable of understanding. Field sampling was conducted for one month. To support the data from checklist, there were in-depth interviews conducted, interesting facts found during the interviews and observations.

2.2 Data Analysis Method

The eco-tourism development strategy in the Baning NTP area was analyzed by SWOT analysis. The analysis is used to identify factors that influence the condition of tourist attraction in Baning Nature Park, through the analysis of Strength, Weakness, Opportunity, and Threat (SWOT), followed by analyze of IFAS (Internal Factor Analysis Summary) and EFAS (External Factor Analysis Summary).

III. Results and Discussion

The assessment scores for ecotourism management in Baning NTP area were scored by IFAS and EFAS assessment. Seven strengths was identified as follows: (1) Peat swamp forests in less-disturbed condition; (2) The specificity and rarity of flora and fauna species of peat swamp forest; (3) The uniqueness of traditional society culture (Dance Art Studio, Ikat Weaving, Traditional Long House of Betang); (4) The beauty of

landscape (natural panorama) of peat swamp forest ecosystem; (5) Regional security (the community's concern of the region, it was also free from the disturbance of dangerous animals); (6) The existence of facilities and tourism facilities (restaurants, hotels, parking loads, shelters, a wooden walkway); (7) The availability of infrastructure (roads, telecommunication networks, internet) (Table 1). The specificity and rarity of flora and fauna species of peat swamp forest had the highest quality and Score.

There were five weaknesses has revealed as follows: (1) The poor availability of adequate facilities and infrastructure in the utilization block; (2) Weak management of tourist attraction; (3) Less promotion and publicity; (4) Inadequate qualified human resources; (5) Insufficient government budget allocation for ecotourism development.

Insufficient government budget allocation for ecotourism development had the highest quality and Score. Internal factor score for strength indicator was 2.17; while the internal factor for weakness indicator was 0.78. So the deviation between these two scores is positive.

Table 1. IFAS Scores of Strengths and Weaknesses

No	DESCRIPTION	QUALITY	RATING	SCORE
I	INTERNAL FACTOR			
A.	STRENGTH			
1.	Peat swamp forests in less-disturbed condition	0.13	4	0.50
2.	The specificity and rarity of endemic flora and fauna species of peat swamp forest	0.17	4	0.67
3.	The uniqueness of traditional society culture (Dance Art Studio, Ikat Weaving, Traditional House of Betang)	0.13	3	0.38
4.	The beauty of landscape (natural panorama) of peat swamp forest ecosystem	0.13	2	0.25
5.	Regional security (the community's concern of the region, it was also free from the disturbance of dangerous animals)	0.04	3	0.13
6.	The existence of facilities and tourism facilities (restaurants, hotels, parking loads, shelters, a wooden walkway)	0.08	3	0.25
7.	The availability of infrastructure (roads, telecommunication networks, internet)	0.04	3	0.13
	Total	0.71		2.17
B.	WEAKNES			
1.	The poor availability of adequate facilities and infrastructure in the block utilization	0.04	2	0.08
2.	Weak management of tourist attraction	0.05	2	0.10
3.	Less promotion and publicity	0.03	3	0.10
4.	Inadequate qualified human resources	0.08	4	0.33
5.	Insufficient government budget allocation for ecotourism development.	0.08	2	0.17
	Total	0.29		0.78
	Total number of strengths and weaknesses	1.00		2.95

Source: Data Analysis Results, 2017

Analysis of external factor has shown six opportunities as follows: (1) Local government support for the ecotourism development of Baning NTP; (2) Close position of the region to the downtown of Sintang district; (3) The increase of citizens' ecotourism interest; (4) The increasing number of foreign tourists to Indonesia (particularly Sintang); (5) Local citizens support for Baning nature tourist ecotourism park; (6) The number of tourist attraction close to the area of Baning NTP (Balek Angin Lake in Jemelak, Keraton, rowing boat tour in Kapuas river) (Table 2). Among the six factors, Local government support for the ecotourism development of Baning NTP had the highest quality and score.

There were four factors considered as threats as follows: (1) Sporadic encroachment by people around the region; (2) The degradation of environmental quality (waste, water contamination, air); (3) The degradation of traditional cultural values of traditional society; (4) The threat of forest fires and the decline of the peat surface (Table 2). The forest encroachment by people around the region had the highest quality and score.

Table 2. EFAS Scores of Opportunities and Threats

No	DESCRIPTION	QUALITY	RATING	SCORE
II	EXTERNAL FACTOR			
A.	OPPORTUNITY			
1.	Local government support for the ecotourism development of Baning NTP	0.17	3	0.50
2.	Close position of the region to the downtown of Sintang district	0.13	3	0.38
3.	The increase of citizens' ecotourism interest	0.08	2	0.17
4.	The increasing number of foreign tourists to Indonesia (particularly Sintang)	0.04	2	0.08
5.	Local citizens support for Baning NTP	0.10	3	0.31
6.	The number of tourist attraction close to the area of Baning NTP (Balek Angin Lake in Jemelak, Keraton, rowing boat tour in Kapuas river)	0.13	2	0.25
	Total	0.65		1.69

B.	THREATS			
1.	Sporadic encroachment by people around the region	0.13	2	0.25
2.	The degradation of environmental quality (waste, water contamination, air)	0.12	3	0.35
3.	The degradation of traditional cultural values of traditional society	0.07	2	0.13
4.	The threat of forest fires and the decline of the peat surface	0.04	1	0.04
	Total	0.35		0.78
	Total number of opportunity and threats	1.00		2.46

Source: Data Analysis Results, 2017

The management of ecotourism in Baning NTP had has the opportunity and strength so that it supported some advantages by the existing opportunities, such as the local government support. The coordinate number was in quadrant I (1.39: 0.91). The strategy adopted under these conditions is to support the aggressive development management policies while prioritizing the conservation aspects.

The strength of tourism potential of Baning NTP Area and the opportunity for the number of visitors who come to Sintang District can be used as the main strategy to develop some new destinations. The strategies taken can be selected from the combination of SO, WO, ST and WT as stated in the Table 3 below.

Table 3. Preparation of Strategy Based on SWOT in Baning NTP Area

Alternative strategy based on SWOT analysis	
<p>SO Strategy</p> <ol style="list-style-type: none"> 1. Socializing and promoting ecotourism extensively 2. Cooperating partnerships with local government, business, NGOs and universities 3. Engage local communities in making plans and implementing ecotourism concepts 	<p>WO Strategy</p> <ol style="list-style-type: none"> 1. Building infrastructure and facilities for ecotourism support in a low cost 2. Recruiting local workers to protect the area 3. Providing the greater opportunity for the local communities to develop tourist attractions
<p>ST Strategy</p> <ol style="list-style-type: none"> 1. Establishing an eco-tourism community organization 2. Conducting conservation of flora and fauna that was typically from peat swamp forest ecosystem 3. Establishing a fire-based community organization 	<p>WT Strategy</p> <ol style="list-style-type: none"> 1. Protecting the peat swamp forest ecosystem 2. Planting trees 3. Conducting community training in ecotourism management

Source: Data Analysis Results, 2017

After doing the SWOT analysis process and getting some alternative strategy of the ecotourism management in Baning Nature Park, the next step was ranking the list to get the priority list by using QSPM matrix (Quantitative Strategic Planning Matrix). The results of the matrix can be determined by looking at the Total Attractiveness Score with some of the highest values. Here is the result of the QSPM matrix in Table 4.

Table 4. Total Attractiveness Score Value of QSPM Analysis

Strategy	TAS	Ranking
1. Conducting conservation of endemic flora and fauna in the peat swamp forest ecosystem	5.69	1
2. Protecting the peat swamp forest ecosystem	5.53	2
3. Doing the activities of dissemination and promotion of ecotourism extensively	5.47	3
4. Cooperating with local government, business, NGO and universities	5.33	4
5. Involving local communities in planning and implementing ecotourism concepts	5.14	5
6. Building infrastructure and facilities for ecotourism support in a low cost	4.70	6
7. Recruiting local workers to keep the area protected	4.41	7
8. Providing the greater opportunity for the local communities to develop tourist attractions	4.33	8
9. Conducting community training in ecotourism management	4.32	9
10. Establishing an eco-tourism community organization	3.97	10
11. Establishing a fire-based community organization	3.84	11
12. Planting trees.	3.71	12

Source: Data Analysis Results, 2017

Base on the SO strategies, the first strategy is to socialize and promote ecotourism widely. Tourism promotion is one of the determinants of tourism success. Especially in rural tourism destinations which far from city, promotion becomes an important factor to introduce various attractions to the tourists [8]. The development of tourism area is influenced by several factors such as promotion, tourist information center and information technology. Hence, the development of tourism area as a sustainable form of tourism requires several strategies including increasing promotion, preserving the environment and involving the community in tourism development [9]. Plenty of tourism attractions such as local festivals [10] and food with various media campaigns such as the website. The general public is interested in what is offered; therefore promotion becomes an important medium to offer the potential for existing tourism because of Tourists are generally satisfied with tourism offering [11].

The second strategy was cooperation with local government, business, NGOs and universities. In this concern, the contribution of stakeholders including private sector, NGOs and universities need to be improved. There are also increasing issues in community involvement and development. Tourism development involving community participation is a process that has to appear and performs by community and increase community prosperity [12,13].

When the SO strategies were integrated to all strategies with Quantitative Strategic Planning Matrix, the result showed that conservation of the flora and fauna in the peat swamp forest ecosystem had a high priority (Table 4). Ecotourism activities are inseparable from efforts to conserve flora, fauna and ecosystems including the peat swamp forests. Ecotourism activities are believed to provide local economic benefits while maintaining ecosystem integrity. A research conducted in Costa Rica that aims to examine conservation and development relationships showed the effectiveness of ecotourism in conservation strategies. Where ecotourism offers an economic alternative, tourism opportunities have encouraged people to leave cultivated land, hence allowing forests to regenerate. Employment in tourism, however, has minimal influences on conservation perspectives. Other factors, including direct benefits of tourism and educational levels, suggest strong associations with conservation behavior and perspectives [14]. Furthermore, the natural conservation aspect is important in the tourism development in Baning NTP. Nature as the main attraction in disturbance, especially anthropogenic aspect influences to tourist activities.

IV. Conclusion

This study identified seven strengths, five weaknesses, six opportunities, and four threats. The specificity and rarity of endemic flora and fauna species of peat swamp forest was the highest strength, while the forest encroachment by people around the region was the highest weakness. Local government support for the ecotourism development of Baning NTP was the highest opportunity, while insufficient government budget allocation for ecotourism development was the highest threat. Socialization programs, promotion, cooperation, community participation in the event of no development strategies for the purpose of realizing ecotourism that must emphasize supervision, conservation and protection of peat swamp forest.

Acknowledgements

The author would like to thank to informants and participants in Baning NTP, West Kalimantan, Indonesia, Director of Postgraduate School Universitas Brawijaya who gave permission for the research, and team of journal clinic of Postgraduate School Universitas Brawijaya who helped in revising initial manuscript.

References

- [1] J. Priskin, Assessment of natural resources for nature-based tourism: the case of the Central Coast Region of Western Australia, *Tourism Management*, 22, 2001, 637–648.
- [2] M. Okello, and S. Yerian, Tourist satisfaction in relation to attractions and implications for conservation in the protected areas of the Northern Circuit, Tanzania, *Journal of Sustainable Tourism*, 17(5), 2009, 605-625.
- [3] D.J. Timothy, Participatory planning a view of tourism in Indonesia, *Annals of Tourism Research*, 26, 1999, 371-391.
- [4] M.V.S. Fons, J.A.M. Fierro, and G. Patino, Rural tourism: A sustainable alternative, *Applied Energy*, 88, 2011, 551-557.
- [5] P.F.J. Eagles, S.F. McCool, and C.D. Haynes, Sustainable Tourism in Protected Areas: *Guidelines for Planning and Management*, (Switzerland and Cambridge, UK: IUCN Gland, 2002). XV, 183.
- [6] Antonius, A. Hakim, A. S. Leksono, and E. Setyowati. Water Resources Management through Government Policy and Local Wisdom in Bukit Kelam Nature Tourist Park Sintang Regency West Kalimantan Indonesia, *International Journal of Science and Research*, 7 (1) 2018, 645 - 651
- [7] A. L. Pambudi, A. Daryanto, S. Hartoyo, Development strategy of natural tourism in pancar mountain natural park, *Jurnal Manajemen dan Kewirausahaan*, 16(1),2014, 27–34.
- [8] R. Hummelbrunner, and E. Miglbauer, Tourism promotion and potential in peripheral areas: The Austrian case. *Journal of Sustainable Tourism*, 2(1-2), 1994, 41-50.
- [9] R. Parmawati, A. S., B. Yanuwadi, and A. S. Kurnianto. Exploration of Marine Tourism in Watulimo, Trenggalek Regency: Challenges, Potentials, and Development Strategies. *Journal of Indonesian Tourism and Development Studies*, 5 (3), 2017, 175 - 184.
- [10] D.Felsenstein, and A. Fleischer, Local festivals and tourism promotion: The role of public assistance and visitor expenditure, *Journal of Travel Research*, 41:, 2003. 385-392.

- [11] S. Boyne, and D. Hall, Place promotion through food and tourism: Rural branding and the role of websites, *Place Branding*, 1, 2004, 80–92.
- [12] M. Ndahimana, E. Musonera, and M. Weber, Assessment of marketing strategies for ecotourism promotion: A Case of RDB/Tourism and Conservation in Rwanda, *Journal of Marketing Development and Competitiveness*, 7(2), 2013, 37-56.
- [13] S. Moyo and T.M. Tichaawa, Community involvement and participation in tourism development: a Zimbabwe Study, *African Journal of Hospitality, Tourism and Leisure*, 16(1), 2013, 1-16.
- [14] C.J. Stem, J.P. Lassoie, D.R. Lee, J.D. Deshler, and J.W. Schelhas, Community participation in ecotourism benefits: The link to conservation practices and perspectives, *Society and Natural Resources*, 16 (5), 2003, 387–413.

Antonius "Ecotourism Management Strategy of Peat Swamp Forest in Baning Nature Tourist Park Area in West Kalimantan Indonesia." *IOSR Journal of Business and Management (IOSR-JBM)* 20.1 (2018): PP 78-83.