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## ECOTOURISM DEVELOPMENT STRATEGY AT HPKT TAHURA WAR

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<sup>2</sup>**ABSTRACT:** This study aims to determine the potential and strategic for the development of natural ecotourism in HPKT Tahura WAR. This research was conducted at HPKT Tahura WAR of Lampung Province in 2017. The research method used survey and interview methods involving three relevant stakeholders, community, visitors and managers. The results showed that the potential of tourism objects of HPKT Tahura WAR area consists of flora-fauna and natural panorama. Potential flora consists of various types of plants that are tree-based, including durian (*Duriozibethinus*), cananga (*Canangaodorata*), Jabon (*Anthocephaluchinensis*), laban (*Vitexpubescens*), and bambubetung (*Dendrocalamusasper*). Types of fauna include gibbons (*Symphalangussyndactilus*), long-tailed monkeys (*Macacafascicularis*), sun bears (*Helarctosmalayamus*), wild boar (*Susscrofa*), partridges (*Gallus gallus*) and various species of birds. The potential natural beauty consists of objects such as Batu Lapis waterfall and natural landscape. Alternative strategies for ecotourism development in the Tahura HPKT Tahura WAR area are developing all existing potentials and packaging into natural tourism package, increasing and empowerment participation, improving the quality of tourism objects such as services, facilities and infrastructure, clarify status of the cultivating area and maximizes supervision in the field.

*Keywords: HPKT Tahura WAR, Ecotourism, Potention, Development.*

### 1. INTRODUCTION

Based on Law No. 41. 1999 concerning Forestry article 6 paragraph 2 states that forests in Indonesia are based on their basic functions divided into conservation forests, protected forests and production forests. The main function of conservation forests is nature conservation for the purpose of natural or artificial collection of plants and / or animals, native and non-native species, which are used for research, science, education to support cultivation, tourism and recreation culture. Conservation areas, both natural conservation areas and nature reserve areas or protected forest areas, are destinations that are interested by ecotourists, because they have a diversity of flora and fauna, beautiful natural phenomena, cultural and historical objects and unique local people's lives. The entire object of tourist attraction is a resource that has high economic value as well as a means of education and environmental preservation. Utilization of natural resources and the environment and concern for the surrounding communities in conservation areas in line with the vision of ecotourism development namely conservation of biodiversity and its ecosystems and empowerment of local communities (Fandelli, 2000). Forest Parks in Indonesia that has the potential to be developed as a natural tourism object is the Integrated Conservation Education Forest/HutanPendidikanKonservasiTerpadu (HPKT) located within the Taman Hutan Raya Wan Abdurrahman (TAHURA-WAR). Tahura WAR is one of the conservation forests in Lampung Province. In accordance with the Decree of the

Minister of Forestry No. 408 / Kpts-II / 1993 which has an area of 22,249.31 hectares whose authority is managed by the Dinas Kehutanan Lampung Province. The main consideration of HPKT Tahura WAR which is potentially used as a tourist attraction is a variety of unique and unique biophysical attractions. The tourism object is in the form of flora and fauna diversity, natural scenery, river flow and waterfall. The Tahura WAR HPKT area which has a high flora and fauna diversity in Indonesia also plays a role in providing ecological benefits for the surrounding areas. The purpose of this research is to identify the potential of ecotourism and determine the strategy of ecotourism development in the area of HPKT Tahura WAR in Lampung Province

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Planning and management of ecotourism which can either be one of the most effective tools for biodiversity conservation in the long term with the state support such as market conditions, the management at the local level and the harmonious relationship between the development of ecotourism with conservation (KC Anup, 2015).

## 3. RESEARCH METHODS

The research was conducted in the area of HPKT Tahura WAR. The research was a qualitative research. Data collection was done through participant observation, in-depth interview, and document analysis. The research was conducted from Mei to June 2017. Respondents in this study consisted of 30 people from each stakeholder. There are 3 stakeholders, people of Desa Sumber Agung, area managers and visitors.

Data analysis on this research using two methods: a) Descriptive qualitative analysis method is an analytical method that aims to describe and explain the results obtained in the study of potential tourist attraction. b) SWOT analysis methods (Strengths, Opportunities, Weaknesses, Threats) that is the method used to determine the development strategy of factors strengths, opportunities, weaknesses, and threats to the conditions at Tahura WAR Area. Tools that used in the analysis method SWOT is SWOT matrix. SWOT Matrix is a tool for structuring organizational strategic factors which can clearly describe external opportunities and threats what the organization faces can be adjusted to external strengths and weaknesses which are owned

Table 1 SWOT Analysis Matrix

External Factor	Internal Factor	
	Strength (S)	Weakness (W)
Opportunity (O)	SO	WO
Threat (T)	ST	WT

Source :Rangkuti, 2006

#### 4. DISCUSSIONS AND ANALYSIS OF RESULTS

HPKT Tahura WAR is a part of the Taman Hutan Raya Wan Abdul Rachman. It was designated as a Nature Conservation Area based on the Decree of the Minister of Forestry No. 408 / Kpts-II / 1993. HPKT Tahura WAR is the result of the Collaboration Agreement between the Lampung Province Forestry Service and the Faculty of Agriculture of the University of Lampung concerning the Development of Integrated Conservation Forest in the Tahura Wan Abdul Rachman Number: G / 745.A / III.16 / HK / 2009 and Number: 3632 / H26 / 4 / DT / 2009. (UPTD Tahura WAR, 2009). HPKT Tahura WAR block has an area of 1,143 ha. Tahura WAR HPKT area has field conditions from waving topography, slope hills, cliffs and mountainous areas. Several valleys are located between Mount Betung, Pesawaran and TangkitUlu Padang Ratu (1600 m above sea level) (UPTD Tahura WAR, 2008). In general, soil types consist of brown latosol and brown andosol, or *TypicDystropepts*. This soil belongs to Inceptisols (newly developed soil), with the following general conditions: deep enough soil depth, clay texture to clayed clay, rounded cube structure (angular blocky), acid soil reaction, and good drainage (UPTD Tahura WAR, 2008). Wet month (rainfall > 100 mm / month) occurs from December to March, humid months (rainfall 60--100 mm / month) occurs for 5 months and the rest is dry months (rainfall < 60 mm / month) happened in May-- July. The average climatic conditions are 27.7°C, RH or humidity of 83.1%, and the percentage of sunlight is 33.1%. While the number of rainy days ranged from 4.7 days / month (September) to 17.8 days / month (January). HPKT Tahura WAR area has great biodiversity both flora and fauna and natural attractive panorama and has the potential of tourist attraction. It has good prospects to be developed as a place of recreation and natural tourism that can attract domestic and foreign visitors to come, because located near to Bandar Lampung. Other natural potentials contained is Batu Lapis waterfall, and the beautiful panorama of Bandar Lampung City from a height. The potential of natural tourism in this region can be seen through two indicators, potential of flora and fauna and the potential for natural panorama.

##### *Flora and fauna*

The types of trees found in the HPKT Tahura WAR area include: durian (*Duriozibethinus*), cananga (*Canangaodorata*), Jabon (*Anthocephaluchinensis*), laban (*Vitexpubescens*), and betung bamboo (*Dendrocalamusasper*). Wild animals living in the area, among others: gibbons (*Symphalangussyndactilus*), long-tailed monkeys (*Macacafascicularis*), sun bears (*Helarctosmalayanus*), wild pigs (*Susscrofa*) partridges (*Gallus gallus*) and various species of birds.

##### *Natural Panorama*

Based on the results of the study that the HPKT Tahura WAR contained a natural panorama attraction consisting of several objects of natural tourist attraction including the following

###### a. Batu Lapis waterfall

Batu Lapis Waterfall is a natural tourist attraction that located in the HPKT Tahura WAR. To reach this destination visitor can walk about an hour through the footpath from Desa Sumber Agung. There are also transportation facilities such as motorcycle to reach the location, but to get to the location can only be done in the dry season, due to difficult road access. Batu Lapis Waterfall has its own uniqueness, because visitors will be presented with natural rock formations which are stacked and neatly arranged.

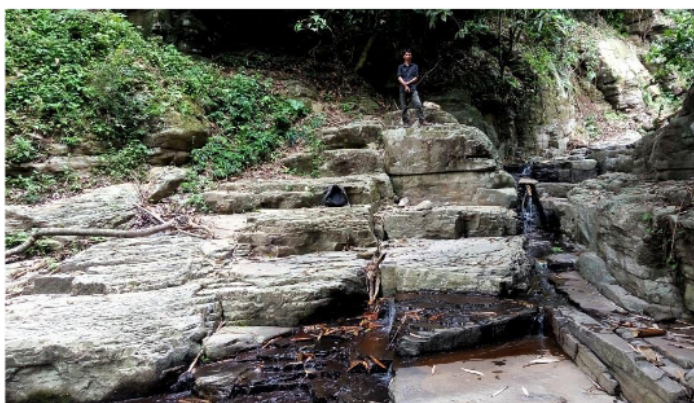


Fig. 1 Batu lapis waterfall

b. Natural scenery

The viewing post is a balcony built with wooden and bamboo structures at the end of a cliff. On the platform, visitors can see the sights of Bandar Lampung City from a height. To be able to get to the location can be reached by walking approximately 1 hour from SumberAgung Village. The dry season is the right time to visit the place, because the access to the location is difficult, especially in the rainy season.



Fig 2. Natural scenery

*Infrastructur*

a. Accesibility

To be able to go to tourist sites visitors can use private vehicles with a distance of approximately 30 minutes from Bandar Lampung City to SumberAgung Village. For now there are no public transportation to tourist sites. Accessibility to tourist objects in the Tahura WAR HPKT area cannot be reached by land transportation, it can only be reached on foot by small road facilities and can only be traveled on foot. The time taken by visitors to arrive at the tourist site is  $\pm$  60 minutes from the outer boundary of the Tahura WAR area of HPKT which is adjacent to SumberAgung Village.

b. Facility

Facilities for tourism activities include building infrastructure facilities and their facilities. Tourist facilities such as lodging, roads, tourist huts. In building the necessary

tourism facilities must pay attention to the environment with the right placement or adapted to the characteristics and needs so as to provide optimal benefits without damaging the environment of the tourist attraction. For now, the available tourist facilities are only parking facilities that are managed independently by the community and public bathroom facilities at tourist sites which only number 1 (one) building unit.

### SWOT Analysis

<sup>1</sup>Based on the results of interviews and field observations, the strategy for developing ecotourism in WAR Tahura WAR area was formulated through a SWOT analysis which included internal environmental analysis and external environmental analysis. For more details, the SWOT analysis on the development of ecotourism in the Tahura WAR HPKT area can be described as follows:

#### a. Strength

Strength referred to in this study is the potential to <sup>2</sup>be developed in the future. The strengths that support the development of ecotourism are:

- 1) Status of the Tahura WAR area as a conservation area <sup>6</sup>based on the Minister of Forestry's Decree No. 408 / Kpts-II / 1993 dated 10 August 1993 covering an area of 22,249.31 ha. In its management, the government cooperated with Unila with an area of 1,143 ha designated as Integrated Conservation Education Forest.
- 2) Tahura WAR has great biodiversity, for flora Jabon (*Anthocephalus chinensis*), cananga (*Cananga odorata*) durian (*Duriozibethinus*) and betung bamboo (*Dendrocalamus asper*). For fauna found in the conservation forest are siamang (*Symphalangus syndactylus*), long-tailed monkey (*Macaca fascicularis*), sun bear (*Helarctos malayanus*), wild boar (*Sus scrofa*), partridge (*Gallus gallus*) and various birds (Tahura WAR UPTD), 2009).
- 3) HPKT Tahura WAR have beautiful natural scenery, such as waterfalls, tiled rocks and natural scenery.

#### b. Weakness

The weaknesses referred to in this study are deficiencies or obstacles in development in the HPKT Tahura WAR area are:

- 1) Accessibility to destination, the condition of road facilities is less supportive because the existing road facilities are in very poor condition especially when summer and rain arrive.
- 2) Weak provision of facilities, the condition of the existing facilities is very minimal and can even be said to be non-existent.
- 3) Low level of community education and lack of community expertise.
- 4) Public concern for the status of their cultivated land which violates the Forest Conservation regulations.
- 5) Trauma to land eviction in the region.

#### c. Opportunity

Opportunities referred to <sup>7</sup>in this study are the supporting factors of ecotourism development in the HPKT Tahura WAR area are:

- 1) Open opportunities for limited tourism management in the region, where the community's need for limited natural tourism is increasing, especially for special interest tourists. Limited nature tourism such as tracking, campsite, and outbound

- 2) Support from the community and community leaders around the area, especially in the development of tourist areas in the hope that they can be involved from planning to utilization of results.
- 3) Promotion of tourist information through social media
- 4) Income opportunities, can create employment and business opportunities for the community so that it can indirectly increase people's income because it does not depend on one type of livelihood and can increase regional income.
- 5) Create of an investment climate, can attract ecotourism entrepreneurs to collaborate with stakeholders in the development of sustainable tourism development.

d. Threat

The threat referred to in this study are the factors that hinder the development in the future.

- 1) Disruption of natural resource potential by community activities in the form of: reduced endemic animal species, population of several types of flora and fauna such as Rhinoceros Hornbills and forest orchids are reduced because many are hunted by the community.
- 2) Environmental pollution, especially in the vicinity of tourist areas caused by the low awareness of visitors to the environment, in this case the visitors are not maintaining cleanliness, the waste of plastic packages of food is discarded in any place.
- 3) The threat of natural disasters, in the form of a dry season will result in fire-prone so that it is feared that it will disturb forest ecosystems and be prone to flooding



**SWOT Matrix**

<sup>4</sup>Based on the results of the analysis of the internal and external environment above, then an analysis of SWOT matrix is used to determine the strategy for ecotourism development on HPKTTahura WAR area.

Table 2SWOT Matrix

<b>Internal</b>	<b>STRENGTH (S) Internal</b>	<b>WEAKNESS (W) Internal</b>
	<ol style="list-style-type: none"> <li>1. Status of the Tahura WAR Area.</li> <li>2. High biodiversity (flora and fauna).</li> <li>3. Natural scenery and natural scenery.</li> </ol>	<ol style="list-style-type: none"> <li>1. Accessibility to difficult to reach locations.</li> <li>2. Lack of tourism support facilities.</li> <li>3. Low level of education and community expertise.</li> <li>4. Status of community land.</li> </ol>
<b>Eksternal</b>	<b>OPPORTUNIES (O) Internal</b>	<b>WO STRATEGIC</b>
	<ol style="list-style-type: none"> <li>1. Open limited tourism management opportunities.</li> <li>2. Income opportunities</li> <li>3. Full support from the community and managers.</li> <li>4. Number of potential visitors, especially young people</li> <li>5. Tourism promotion</li> <li>6. Create of an investment climate</li> </ol>	<ol style="list-style-type: none"> <li>1. Increase community participation and empowerment.</li> <li>2. Utilizing support from government and the community to improve the quality of tourism objects such as facilities, services, and infrastructure.</li> <li>3. Promote tourism activities</li> <li>4. Clarify and affirm the status of arable land.</li> </ol>
<b>TREATH (T) Eksternal</b>	<b>ST STRATEGIC</b>	<b>WT STRATEGIC</b>
<ol style="list-style-type: none"> <li>1. Disruption of natural resources from tourism activities</li> <li>2. Environmental pollution.</li> <li>3. Threat of natural disasters</li> </ol>	<p>Optimizing supervision in the field, coaching habitat and population towards extinct species of fauna also increase public awareness by providing counseling about the benefits of natural resources.</p>	<p>Related stakeholder collaboration between the Forestry Service, Tourism Office, Provincial Government, , Lampung University, NGOs, and the community to collaborate in tourism development activities ranging from planning to management of tourist areas</p>

1 Analysis of ecotourism development strategies in HPKT Tahura WAR. Based on an analysis that takes into account the interests of external and internal factors as well as the interrelationships between the factors (SWOT analysis), 7 alternative strategies for Tahura WAR Ecotourism activities were obtained as follows:

**1. Develop all available potential, both biodiversity and natural scenery into a tour package.**

Area of HPKT Tahura WAR has a high potential of natural biological resources, including flora, fauna and natural scenery. This potential can be developed as an ecotourism location. There are several excellent alternatives in the development of tourism in HPKT Tahura WAR, including birdwatching tours by making viewing towers, then camping and jungle tracking tours. Another alternative is to make educational tourism by involving educational institutions from elementary to tertiary level by introducing the potential of flora and fauna to visitors.

**2. Increase and empowerment community participation**

Concept of ecotourism development is to increase community participation in management, so that it can be beneficial to the economy of the local community. The existence of existing community empowerment programs should be further developed and activated. In addition, community participation needs to be developed to become a tour guide. According to Satria (2009), local communities are actually not obstacles to the development of ecotourism, because their role should not be separated in tourism programs. Community-based management is one of the natural management approaches that puts the knowledge and awareness of the local community as the basis for its management.

**3. Improve the quality of tourism objects by providing tourism facilities and infrastructure.**

In line with the community-based tourism development paradigm, the development of infrastructure and ecotourism facilities should be carried out by implementing community oriented development (Avenzora 2008c). This condition means the development and improvement of the quality of infrastructure and living facilities which are the main objectives for the fulfillment and livelihoods of local communities that are compiled so that they can be multiplied to also supply tourism needs. Ramli et al. (2012) also stated the same thing, which is one of the strategies for developing tourism objects is improving facilities and infrastructure that support tourism activities. Construction of physical facilities as an increase in added value for each spiritual tourism object should adopt the concept of eco-design which is not only superior in aesthetic quality, but also superior in terms of meeting the needs of visitors and adaptive to environmental resources and local socio-cultural life. Through increasing the added value of the attractiveness of the wizard, it is expected that optimal appreciation will grow, both by local people and visitors.

**4. Promotions of ekotourism**

The study results show that the main market segments for ecotourism in the HPKT Tahura WAR are local (Bandar Lampung region) with an age range of 20-30 years. Thus,

market development must be carried out by accommodating the preferences and expectations of each market segment. Visitors argue that the most effective source of tourist attraction information is through social media promotion. For this reason, the main promotional efforts carried out are inward in nature by increasing the physical quality and service of tourism objects so as to increase the satisfaction of visits which leads to the transmission of information on the satisfaction obtained.

#### **5. Strengthen the status of community land management**

Basically based on the regulations in Tahura WAR as Conservation Forest does not allow the community to manage the land. This has become a fear for the community because there is no certainty to manage the land. The implementation of the violating community was carried out with a persuasion approach, designation and expulsion as well as the absence of recognition of community management rights in Tahura WAR. The HKM permit granted to the SumberAgung Farmers' Association for a period of 5 years (1998-2003) was only realized for 3 years. Through the Minister of Forestry's Decree No.31 of 2001 the HKM permit in Tahura WAR was revoked because it was contrary to Law No. 5 concerning Conservation of Natural Resources and Ecosystems and not in accordance with the Decree of the Ministry of Forestry No.622 / Kpts-II / 1995 and No.677 / Kpts-II / 1998 concerning Community Forestry (HKM). In 2003 the transfer of the authority of the management of Tahura from the central government to the regional government changed the naming of HKM into the Collaborative Forest Management (PHBM) in Tahura WAR. Based on this, there is a need for synergy between the Regional Government and the Central Government in affirming the status of farmers in the Tahura WAR area, so that a sense of calm and security is created for the community in managing the area.

#### **6. Optimizing supervision**

The negative impact of tourism is environmental damage. Although the concept of ecotourism always prioritizes conservation in it, but it cannot be denied that violations of this are often encountered. This is not only caused by the lack of knowledge and awareness of the surrounding community about the concept of ecotourism, but the opportunity for destruction also exists if there is no sanction or strict supervision from the management and the government. Increased conservation efforts in the area of HPKT Tahura WAR can be done by local governments and managers can also be coordinated with Nature Lovers activities units or organizations from various universities in Bandar Lampung.

#### **7. Stakeholder collaboration**

Collaboration in institutions and partnerships plays a role in improving the quality of tourism resource management while addressing negative issues related to tourism development. Collaboration is not only intended to map and interpret the various potentials that exist, but also must be aimed at building understanding and minimizing differences in views that often occur.

## 5. CONCLUSIONS

The ecotourism potential of the Tahura WAR area of HPKT which consists of various types of flora-fauna and natural paroras has an attraction for ecotourism development in Lampung Province. Alternative strategies for ecotourism development in the Tahura HPKT Tahura WAR area are developing all existing potentials and packaging into one natural tourism package, increasing community participation and empowerment, improving the quality of tourism objects, services, facilities and infrastructure. confirms the management status of cultivating land and maximizes supervision in the field.

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## 7. REFERENCES

- Avenzora R. 2008. *Ekoturisme-TeoridanPraktek*. Avenzora R, editor. Nias (ID): BRR NAD
- Fandeli, C.2002. *Perencanaankepariwisataanalam*. FakultasKehutanan, Universitas Gajah Mada.
- KC, Anup; Rijal, Kedar; Sapkota, Ramesh Prasad.2015. Role of ecotourism in environmental conservation and socioeconomic development in Annapurna conservation area, Nepal. *International Journal of Sustainable Development & World Ecology*, 22.3: 251-258.
- Rangkuti F. 2006. *Analisis SWOT TeknikMembedahKasusBisnis (ReorientasiKonsepPerencanaanStrategisuntukMenghadapi Abad 21)*. PT. GramediaPustakaUtama. Jakarta.
- Ramli M, Muntasib EKSH, Kartono AP. 2012. Strategipengembanganwisata di PulauBaweanKabupaten Gresik. *Media Konservasi*. 17(2):79-84.
- Satria, Dias. 2009. "StrategiPengembanganEkowisataBerbasisEkonomiLokaldalamRangka Program PengentasanKemiskinan di Kabupaten Malang". *Journal of Indonesian Applied Economics Vol. 3 No. 1 Mei 2009*: 37-47.
- UPTD Tahura WAR. 2008. *BukuInformasi Pembangunan Taman Hutan Raya Wan Abdul Rachman*. Bandar Lampung (ID): UPTD TahuraWAR.DinasKehutananProvinsi Lampung.

*Proceeding of International Conference: 3<sup>rd</sup> SHIELD, 2018, pp. 000-000*

UPTD Tahura WAR. 2009. *Hutan pendidikan konservasi terpadu Taman Hutan Raya Wan Abdul Rachman*. Bandar Lampung. Tidak dipublikasikan