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## SWOT analysis of Ecotourism development in Sembilang National Park, Banyuasin Regency, South Sumatra, Indonesia

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**Abstract:** Tourism is one of the dynamic industrial activities for a country's income. Tourism can take the form of ecotourism with potential factors for nature conservation and development. Ecotourism is a form of tourism that is primarily inspired by the natural history of an area, including the area's indigenous culture. Effective sustainable ecotourism management must use strategic planning. Strategic planning can use the SWOT matrix. In general, the strengths of Sembilang National Park are the uniqueness of migratory birds from Siberia that do not exist anywhere else and the presence of exotic animal habitats. The weakness of Sembilang National Park is that transportation is still dominated by waterways and there is a lack of clean water sources. The opportunities for Sembilang TN include financial assistance and international recognition. Meanwhile, the threat to Sembilang National Park is weather conditions which greatly affect waterways. From the weighting results, it is found that the position of Sembilang TN is on the X axis with a value of 9. So it can be concluded that Sembilang TN is at a positive point on the The position of the Sembilang National Park development strategy is in Quadrant I, namely the strategy of utilizing all strengths to seize and exploit maximum opportunities.

**Keywords:** Tourism, Ecotourism, Sembilang National Park, SWOT.

## INTRODUCTION

Tourism is one of the dynamic industrial activities for a country's income. Tourism can take the form of ecotourism with potential factors for nature conservation and development (Ronizi et al., 2020). Ecotourism is a nature-based, ecologically sustainable, environmentally educational and locally beneficial activity that provides an enriching experience for tourists (Wondirad et al., 2020). Ecotourism is a form of tourism that is primarily inspired by the natural history of an area, including the original culture of that area (Safarabadi, 2016).

Sembilang National Park is a unique and potential natural tourist attraction. This national park has a pristine ecosystem, a diversity of flora and fauna and the largest wetland area in the western part of Indonesia (Kriswandi et al., 2020). Sembilang National Park is part of the Berbak-Sembilang National Park (TNBS) which is located on the coast of South Sumatra Province and Jambi Province (Sri et al., 2022; Rozirwan et al., 2022). Sembilang National Park has potential, so there are opportunities for development.

Ecotourism is developed based on four pillars of sustainability, namely ecological, economic, social and institutional aspects. Thus, the development and implementation of ecotourism is necessary for sustainable development. Based on ecotourism principles, the implantation process requires a planning strategy (Sahani, 2021). The development of ecotourism in protected areas can pose a threat to rare endemic species and ecologically valuable ecosystems (Sobhani et al., 2023). Effective sustainable ecotourism management must use strategic planning. Strategic planning can use the SWOT matrix (strengths, weaknesses, opportunities and threats), one can determine external threats and opportunities, as well as internal weaknesses and strengths, a system for designing strategies to direct and manage the system (Hong and Chan, 2010). The same thing applies to the development of ecotourism in Sembilang National Park which must use strategic planning. Based on this, this article will analyze the ecotourism development of Sembilang National Park using SWOT and determine the position of the SWOT analysis quadrant.

## METHOD

This research focuses on Sembilang National Park, Banyasin Regency, South Sumatra Province. Sembilang National Park is located in the administrative area of Banyuasin II District and is a coastal area, tidal swamp and river border with a height distribution of 0-2 meters above sea level. Respondents in this study were selected using purposive sampling. The key informants in this research were the head of Sembilang National Park (1 person), Forestry Police (2 people) and Sembilang National Park staff (15 people). Apart from that, researchers also interviewed tourists (20 people) and the public (15 people). Data was taken by means of in-depth interviews.

Internal and external factor analysis was carried out based on the results of interviews with the sample. After obtaining the internal and external factors, proceed with the Internal Factor Evaluation Matrix (IFE Matrix) and External Factor Evaluation Matrix (EFE Matrix). The matrix is weighted, rated and weighted. The weight on strengths and opportunities is given a coefficient from 0 (not important) to 1 (important) and the weight on weaknesses and threats is given a coefficient from 1 (not important) to 0 (important) depending on the level of importance. Ratings on strengths and opportunities are rated 1 (not good) to 4 (very good) and weaknesses and threats are rated 1 (very good) to 4 (not good) based on their effectiveness in achieving ideal conditions. The weight value is obtained from multiplying the weight and rating (Zhu et al., 2023). This scoring or weighting is carried out to obtain the position of Sembilang National Park's development strategy on the SWOT Analysis diagram. There are 4 quadrants in the strategic position, namely: Quadrant I (Aggressive Strategy): namely utilizing all strengths to seize and exploit maximum opportunities; Quadrant II (Diversification Strategy): strategy of using power to overcome threats; Quadrant III (Turn Around Strategy): namely, exploiting opportunities by minimizing weaknesses; Quadrant IV (Defensive Strategy): Namely, trying to minimize weaknesses and avoid threats (Nuri et al., 2014).

## RESULTS AND DISCUSSION

### Research Study Area

Sembilang National Park is located in the administrative area of Banyuasin II District and is a coastal area, tidal swamp and river border with a height distribution of 0-2 meters

above sea level (Figure 1). Access to this area is still dominated by river transportation (Almaniar et al., 2021; Fitria et al., 2023). The Banyuasin II District area around Sembilang National Park is a production forest, plantation and rural area.

The Sembilang National Park area is located on the east coast of South Sumatra Province, which geographically is at 104°14'-104°54' East Longitude and 1°53'- 2°27' South Latitude. Before being designated as a national park, based on South Sumatra Province Regional Regulation No. 5/1994 concerning Provincial RTRW, Sembilang Nature Reserve Forest has an area of 205,750 Ha which was originally a combination of the Canal Dalam Wildlife Reserve area (29,250 Ha), Sembilang Nature Reserve Forest covering an area of 113,173 Ha, River Limited Production Forest, The Inner Canal covers an area of 45,500 Ha and the water area covers an area of 17,827 Ha. This area is known for its extensive mangrove ecosystem and the diverse biota that inhabit its environment (Rozirwan et al., 2023a; Rozirwan et al., 2024).

### **Analysis of Internal and External Factors**

The key informants in this research were the head of Sembilang National Park (1 person), Forestry Police (2 people) and Sembilang National Park staff (15 people). Apart from that, researchers also interviewed tourists (20 people) and the public (15 people). The interview results obtained were internal factors and external factors. Internal and external factors are explained in Table 1.

Based on table 1, the general strength of Sembilang National Park is the uniqueness of migratory birds from Siberia which do not exist anywhere else and the presence of exotic animal habitats. The weakness of Sembilang National Park is that transportation is still dominated by waterways and there is a lack of clean water sources (Rozirwan et al., 2023b). The opportunities for Sembilang TN include financial assistance and international recognition. Meanwhile, the threat to Sembilang National Park is weather conditions which greatly affect waterways. By measuring the sustainability of ecotourism activities carried out in a protected area, the sustainability of a protected area will increase, its audit-monitoring activities will become more functional, and its position among other countries will improve, both with the criteria and indicators, as well as with the determination. strengths/weaknesses, opportunities/threats in the area concerned can make it stronger (Yilmaz and Ozturk, 2023). The potential of ecotourism to preserve biodiversity, encourage job creation for indigenous peoples and local communities and promote local culture and products, in areas with high ecotourism potential. They all identified ecotourism as a strategy to encourage sustainable development in protected areas and their surroundings (Ashok et al., 2017). After identifying the external and internal components of tourism growth in Sembilang National Park, it is continued with scoring on the internal factor evaluation matrix and external factors.

### **Internal Factor Evaluation Matrix (IFE Matrix)**

Based on the identification of the internal strategic factors of Sembilang National Park, strengths and weaknesses were obtained. After data collection, weighting is carried out. The botting results are presented in Table 2.

From the weighting results, it is found that Sembilang TN's position is on the X axis with a value of 9. So it can be concluded that Sembilang TN is at a positive point on the In developing ecotourism, it is important to provide satisfaction to visitors. One thing that can be done is tourism product innovation, because tourism product innovation is related to tourist satisfaction. Based on the results of research studies, to improve the performance of tourism destinations, innovation is needed that is in line with tourist demand, especially in the aspect of accommodation (tongkonan) which is integrated with ecotourism attractions in rural areas (Girikallo et al., 2019).

### External Factor Evaluation Matrix (EFE Matrix)

Based on the identification of the external strategic factors of Sembilang National Park, opportunities and threats were obtained. After data collection, weighting is carried out. The botting results are presented in Table 3.

From the weighting results, it was found that Sembilang TN's position was on the Y axis with a value of 6.6. So it can be concluded that Sembilang TN is at a positive point on the Y axis. This shows that Sembilang TN has external threats related to its development. Facility conditions and external conditions are the main factors that influence tourists' choices, especially accommodation facilities and traffic conditions. The development of rural ecotourism will depend on convenient traffic facilities, fully revealing natural scenery and historical resources, building good supporting facilities; if we concentrate on expanding tourism services and focus on environmental protection, this will support tourism sustainability (Xiang et al., 2020).

### Grand Strategy Analysis

Based on the analysis of the IFE and EFE matrices, the SWOT quadrant is located at the value  $X = 9$  and the value  $Y = 6.6$ . Based on Figure 2, it is known that the position of the Sembilang National Park development strategy is in Quadrant I, namely the strategy of utilizing all strengths to seize and exploit maximum opportunities. This is in line with the results of the analysis through SWOT analysis showing that currently Sembilang National Park is in a position to support aggressive strategies (quadrant 1). This can mean that Sembilang National Park is in prime and stable condition so that it is possible to continue to expand, increase growth and achieve optimal progress (Kriswandi et al., 2020). Several things can be done in developing ecotourism, namely: inventorying regional natural and historical-cultural resources, creating a database and identifying scientifically valid recreational content; basic planning of ecotourism tourism activities and its integration in regional development plans; route certification; creation of minimal infrastructure; increasing the professional level of something. In developing ecotourism, it is important to develop regional strategies, identify ecotourism criteria and indicators, winning mechanisms, and develop systems that can prevent damage to protected areas (Azmaiparashvili, 2017; Samal and Dash, 2023). Institutional support, collective action and cooperation for their welfare and conservation have actually increased significantly. That ecotourism programs have major weaknesses in achieving sustainability. Therefore, it is necessary to pay attention to appropriate emphasis on all aspects of human welfare to ensure the active participation of local communities (Kibria et al., 2021; Achuk Eba and Ckaiamz Enamhe, 2023).

### CONCLUSION

In general, the strength of Sembilang National Park is the uniqueness of migratory birds from Siberia that do not exist anywhere else and the presence of exotic animal habitats. The weakness of Sembilang National Park is that transportation is still dominated by waterways and there is a lack of clean water sources. The opportunities for Sembilang National Park include financial assistance and international recognition. Meanwhile, the threat to Sembilang National Park is weather conditions which greatly affect waterways. From the weighting results it was found that the position of Sembilang National Park was on the X axis with a value of 9. From the weighting results it was found that the position of Sembilang National Park was on the Y axis with a value of 6.6. So it can be concluded that Sembilang National Park is at a positive point on the Y axis. The position of the Sembilang National Park development strategy is in Quadrant I, namely the strategy of utilizing all strengths to seize and exploit maximum opportunities.

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