The Development Strategy of ‘Cinta Mangrove Park’ Ecotourism In Mempawah Regency

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Abstract

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Mempawah Regency is an area located on the coast that has a wide area of mangrove forest. The mangrove forest is used to prevent abrasion and as an ecotourism area. This regency has three mangrove ecotourism; they are Mempawah Mangrove Park, Polaria Tanjung Pagar Mangrove Park and Cinta Mangrove Park. Cinta Mangrove Park is the newest mangrove ecotourism in Mempawah Regency. As the latest ecotourism, there are still some shortages, upgrading and developments that need to be done in terms of human resources, facilities and less of promotion. The aim of this research was to determine the development strategy of the Cinta Mangrove Park ecotourism. The location of the research was carried out at the Cinta Mangrove Park Ecotourism in Sungai Bakau Besar Laut Village Sungai Pinyuh Sub-District Mempawah Regency with the consideration that this location was the latest ecotourism that still has a lot of shortages and need improvement. The selected respondents were the key informants. The analysis used was SWOT and QSPM analysis. The results of the research described that the mangrove ecotourism development strategy was a weakness-opportunity (WO) strategy. The main priority of the Cinta Mangrove Park ecotourism development strategy was to seek funding sources and attract investors to collaborate to build tourism facilities. The results of this research were expected to be a contribution in
INTRODUCTION

Ecotourism is an activity of visiting and observing, watching, studying and admiring the natural beauty, flora, fauna and cultural factors in the past or at present in relatively undisturbed natural areas (Pendit, 1981). The meaning of ecotourism contained three elements; they are being able to provide calculated conservation values; can involve the community and provide benefits and can look after of themselves. These three elements can be realized if in each ecotourism can integrate four aspects which include ecosystems, society, culture, and economy (Tuwo, 2011).

According to Hartini et al (2010) the area of mangrove forests in West Kalimantan is 149,344,189 hectares. Mangrove forest ecosystems are spread in 7 Regencies of the Coastal region in West Kalimantan. Mempawah Regency is geographically located in a coastal area that has a fairly extensive mangrove forest area. The potential of extensive mangrove forests can be developed into ecotourism areas (Mukaryanti, 2005). This regency has 3 mangrove ecotourism locations; they are Mempawah Mangrove Park, Polaria Tanjung Pagar Mangrove Park and Cinta Mangrove Park. Aside from being a natural tourist attraction, mangrove forests are also be the educational facilities for the society. Of the 3 mangrove ecotourism locations, Cinta Mangrove Park ecotourism is the most recent tourist attraction because it was inaugurated in early 2018.

As the newest ecotourism object, there is still a lot to be regenerated and developed for the Cinta Mangrove Park ecotourism development. Cinta Mangrove Park is the remaining mangrove forest, now it is only around 40-50 hectares. The current developments that have been done include: mangroves planting, making road trails such as wooden bridges, simple photo spots, open pavilion as meeting rooms, toilets, mosque, parking lots, counters and parks as well as other infrastructure.

Based on the information from the local community, the local society used to cut down mangroves to use their wood for firewood. The planting of mangrove seedlings that have been done only produced a few trees that can be grown. In fact, almost all mangrove seedlings were damaged. This was caused by natural factors. The waves of the sea that made mangrove seedlings easily revoked from the ground. So that, planting and maintaining mangrove plants need to be done continuously. The bridge for the track road in the Cinta Mangrove Park ecotourism was made of perishable wood. It was found that the condition of the bridge experienced some damages such as fragility and no ongoing maintenance was performed.
The meeting pavilion, mosque and counters in the ecotourism area of Cinta Mangrove Park were made of wood with an open design that is not sturdy and easily damaged, photo spots that was not interesting to the visitors and the park condition were not maintained so that the park is not maintained and needs improvement. The lack of conditions in the Cinta Mangrove Park ecotourism resulted in low interest and attraction of the visitor, this can be seen from the number of visitor every day was very small compared to the two other mangrove ecotourism locations in the Regency of Mempawah.

On the other hand, the local society is friendly and extrovert, so that it supported the development of mangrove areas as a profitable ecotourism object. The accessibility to reach the Cinta Mangrove Park ecotourism is very easy; the close range to the capital of the province is an opportunity for promotion development so that it attracts tourists to visit as well as the diversity of mangrove trees that are available, although limited, can be the visitor attraction. This is in line with the results of research (Dolorosa & Kurniati, 2019) showed that the potential value of mangrove ecotourism objects in Mempawah Regency on infrastructure criteria has a low score, while the accessibility criteria has a high score.

This condition gave a hope that the Cinta Mangrove Park ecotourism can still be developed and in the future makes a positive contribution not only to environmental sustainability but also through the concept of ecotourism as a tourist attraction that intend to raise the economy of the region and local society. The research related to the Cinta Mangrove Park ecotourism development strategy has never done before. Through the formulation of an appropriate ecotourism development strategy, it can become an effort to optimize the strength and potential of the Cinta Mangrove Park ecotourism. Based on previous researches stated that through an organized development strategy, an ecotourism potential can be developed more optimally by using the SWOT analysis method (Putra et al, 2015; Karlina, 2015; Basyuni et al, 2016; Umam et al, 2015; Wati et al, 2016; Pratiwi, 2018).

This research aimed to formulate a development strategy through internal and external environmental approached to mangrove ecotourism and then determined the main appropriate priority strategy among several alternative strategies. The results of the formulation of priority development strategies were expected to contribute to local governments, society and investors in decision making and implemented to promote a better and more economically valuable mangrove ecotourism.

**RESEARCH METHODS**

This research used descriptive methods with qualitative and quantitative approaches to the mangrove ecosystem of Mempawah Regency. The chosen research location was conducted at Cinta Mangrove Park Ecotourism in Sungai Bakau Besar Laut Village Sungai Pinyuh Sub-District Mempawah Regency in West Kalimantan with the consideration that the Cinta Mangrove Park ecotourism was the most recent ecotourism that was inaugurated in early 2018 and there were still many shortages, improvements and developments compared to other mangrove ecotourisms in the Mempawah Regency. The study was conducted in July-December 2019. The
selection of respondents was intentionally with consideration of the respondents’ criteria were able to provide information relating to the ecotourism conditions of the Cinta Mangrove Park. Selected respondents used key informants consisting of: administrators, local society, visitors and parties from the tourism department. The formulation of the Cinta Mangrove Park ecotourism development strategy used a SWOT analysis using the approach of internal factors analysis strategy (IFAS) and external factors analysis strategy (EFAS) as well as the QSPM (Quantitative Strategic Planning Matrix) analysis.

RESULTS AND DISCUSSION

The Potential of Cinta Mangrove Park Ecotourism

The potential of Cinta Mangrove Park ecotourism in this research was based on the type of natural resources and the benefits of mangrove ecotourism development for the local society. Natural resources were included the flora and fauna that live in the area. There were types of fauna of coastal areas in mangrove ecotourism such as fish, crabs and birds. The types of flora in the area were included several types of mangroves that grow and only a few species can be used as food that can be consumed. There were 3 types of mangroves that can be used in making several types of food including Brugieira Gymnorhiza used for flour, Sonneratia Ovata type used for Indonesian sweet toffee and syrup and type of Acanthus Ilicifolius L. used for chips.

The existence of Cinta Mangrove Park ecotourism provided many benefits for the local society in terms of economic and social aspects. The social aspects obtained from the existence of this ecotourism lead to togetherness and intimacy between citizens of the local community. This provided comfort and safety to the mangrove ecotourism environment. The local society was friendly and extrovert. This characteristic made it easy for the community to accept the adoption of knowledge from outside, such as cooperation with academics, the private sectors and the government through training and counseling activities related to the potential resources formulation contained in the ecotourism. The non-formal meetings discussed the development of mangrove ecotourism were often performed. Heterogeneous characteristics of society produced forms of local wisdom in social life. This diversity strengthened the relationships, exchanged information between communities so that increased values, ethics, beliefs, norms, customs, and special rules in managing mangrove forests (Pratama et al, 2018).

Economically, the existence of Cinta Mangrove Park ecotourism created jobs and provided business opportunities through household businesses by processing mangrove fruit. This business was performed by the local community, especially the mothers’ group. This was also related to the extrovert, friendly and strong motivation of the group of local mothers to adopt knowledge from outside regarding how to use fruit from local mangrove plants to be processed into food such as Indonesian sweet toffee, flour and syrup both for family consumption and traded purposes. The ingredients were easily obtained without any cost because mangrove fruits were available around the mangrove area. The processed products from mangroves became additional income for the families of the mangrove local society. (Kurniati et al, 2020).
The Development Strategy Based on SWOT Analysis

In the initial stages of the research, the formulation of the development strategy for mangrove ecotourism was performed by analyzing the conditions of the internal environment (IFAS) and external (EFAS) of mangrove ecotourism.

Table 1. Internal Strategic Factors Analysis Summary (IFAS) Analysis

| Internal Determinant Factors | Quality | Rating | Value  |
|------------------------------|---------|--------|--------|
| **Strength (S)**             |         |        |        |
| 1. Local society support to the ecotourism | 0.105   | 3      | 0.314  |
| 2. Interesting tourism area  | 0.095   | 2      | 0.190  |
| 3. Friendly and open society | 0.105   | 3      | 0.314  |
| 4. Affordable accessibility | 0.105   | 3      | 0.314  |
| 5. Diversity of mangrove species | 0.086   | 2      | 0.171  |
| **Sub Total**                |         |        | **1,305** |

| **Weakness (W)**             |         |        |        |
| 1. Lack of local society awareness to the nature and environment sustainability | 0.102   | 4      | 0.410  |
| 2. Lack of tourist facilities | 0.090   | 2      | 0.181  |
| 3. Lack of the local society involvement | 0.102   | 3      | 0.307  |
| 4. Lack of promotion         | 0.114   | 2      | 0.229  |
| 5. Lack of managements’ education and experience | 0.095   | 2      | 0.190  |
| **Sub Total**                |         |        | **1,317** |
| **TOTAL**                    |         |        | **2,621** |

Source: Primary Data Analysis, 2019

Based on the IFAS Analysis in Table 1 showed that Cinta Mangrove Park ecotourism has 5 strengths which were :(1) Local society support to the ecotourism (Putra et al, 2014; Basyuni et al, 2016; Aspiany et al, 2019), (2) Interesting tourism area (Putra et al, 2014; Basyuni et al, 2016; Pratiwi, 2018), (3) Friendly and open society (Pratiwi, 2018), (4) Affordable accessibility (Pratiwi, 2018), and (5) Diversity of mangrove species. Also the 5 weakness including : (1) Lack of local society awareness to the nature and environment sustainability (Basyuni et al, 2016; Pratiwi, 2018), (2) Lack of tourist facilities (Putra et al, 2014; Karlina, 2015; Wati et al, 2016; Aspiany et al, 2019), (3) Lack of the local society involvement, (4) Lack of promotion (Putra et al, 2014; Basyuni et al, 2016; Pratiwi, 2018); Aspiany et al, 2019), (5) Lack of the managements’ education and experience (Putra et al, 2014; Umam et al, 2015; Aspiany et al, 2019). The total score for the strength was lower rather than the total score of the weakness, that mean the mangrove ecotourism development strategy can be performed by regenerating the internal weakness.
Table 2. External Strategic Factors Analysis Summary (EFAS) Analysis

| External Determinant Factors                      | Quality | Rating | Value  |
|---------------------------------------------------|---------|--------|--------|
| **Opportunity (O)**                               |         |        |        |
| 1. Human resource as available labor              | 0,098   | 3      | 0,294  |
| 2. Human recreation needs                         | 0,112   | 4      | 0,448  |
| 3. Creating jobs and increasing income            | 0,105   | 3      | 0,315  |
| 4. Location that close to the capital of the province | 0,103   | 3      | 0,308  |
| 5. Cooperation with outside parties               | 0,100   | 4      | 0,401  |
| **Sub Total**                                     |         |        | **1,766**|
| **Threat (T)**                                    |         |        |        |
| 1. Visitors’ action that damage the environment   | 0,084   | 2      | 0,168  |
| 2. Extreme weather condition                      | 0,107   | 3      | 0,322  |
| 3. Competition of tourism area between regions    | 0,100   | 2      | 0,200  |
| 4. Foreign culture entries that ruined local community’s moral and culture | 0,086   | 3      | 0,259  |
| 5. Coastal abrasion occured                       | 0,105   | 2      | 0,210  |
| **Sub Total**                                     |         |        | **1,159**|
| **TOTAL**                                         |         |        | **2,923**|

Source: Primary Data Analysis, 2019

The result of EFAS analysis in Table 2 showed that Cinta Mangrove Park ecotourism has 5 opportunities, which were: (1) Available human resource, (2) The need of recreation (Umam et al, 2015), (3) Creating jobs and increasing income (Putra et al, 2014; Pratiwi, 2018; Aspiany et al, 2019), (4) Location that close to the capital of the province (Karlina, 2015), and (5) Cooperation with outside parties. The 5 threats including: (1) Visitors’ action that damage the environment (Umam et al, 2015; Basyuni et al, 2016; Pratiwi, 2018), (2) Extreme weather, (3) Competition of tourism area between regions (Umam et al, 2015; Basyuni et al, 2016; Wati et al, 2016; Pratiwi, 2018; Aspiany et al, 2019), (4) Foreign culture entries that ruined local community’s moral and culture (Putra et al, 2015; Pratiwi, 2018; Aspiany et al, 2019) and (5) Coastal abrasion occured. The total score of opportunity was higher rather than the total score of threat, that mean mangrove ecotourism development strategy can be directed by exploiting the opportunity to face the threats. The SWOT analysis result was performed to determine the formulation of mangrove ecotourism development strategy as illustrated in Table 3 below:
Table 3. Strategy Determination and SWOT Assessment Result

|                  | Strength (Strength) = 1,305 | Weakness (Weakness) = 1,317 |
|------------------|-----------------------------|-------------------------------|
| Internal         |                             |                               |
| S1. Local society support. |                             | W1. Lack of local society awareness to the nature and environment sustainability. |
| S2. Interesting tourism area. |                             | W2. Lack of tourist facilities. |
| S3. Friendly and open society. |                             | W3. Lack of local society involvement. |
| S4. Affordable Accessibility. |                             | W4. Lack of promotion. |
| S5. Diversity of mangrove species |                             | W5. Lack of management’s education and experience. |
| External         |                             |                               |

Opportunity (Opportunity) = 1,765

STRATEGY SO = 3,071

1. Exploited the society support and human resource available to involve in ecotourism management (S1, S2, S3, O1, O2, O3)
2. Activated planting of mangrove seedling for mangrove forest sustainability (S1, S2, S5, O2, O5)
3. Conversed and improved the number of flora and fauna to be more interesting (S1, S2, S5, O2, O5)
4. Created business opportunity (S1, S2, S3, S4, O3, O4)

STRATEGY WO = 3,082

1. Activated the cooperation with the government and environmental activist in improving nature sustainability awareness and interest. (W1, W3, W4, O5, O4)
2. Activated promotion in various media (W1, W3, W4, O2, O4, O5)
3. Provided education and training about a good ecotourism management to the administrators and local society (W1, W5, O1, O3)
4. Arranged fund raising and attracted investors to cooperate in facilities development (W2, W4, W5, O3, O4, O5)
Threat (Threat) = 1,159

| Sequence | Strategy                              | Value  |
|----------|---------------------------------------|--------|
| 1        | Applied clear and strict rules to prevent destructive actions (S1, S3, S4, T1, T4) | STRATEGY ST = 2,464 |
| 2        | Cooperated with the government, academics and private sectors to improve technology to prevent coastal abrasion (S1, S2, S4, S5, T2, T5) | STRATEGY WT = 2,476 |
| 3        | Developed creativity and idea through training to the society to produce a unique and interesting ecotourism (S1, S2, S3, S4, T3) |  |

Source: Primary Data Analysis, 2019

From the table above, the highest value was the weakness-opportunity (WO) strategy, which means that the directed strategy to be implemented was a strategy to revise internal weaknesses by exploiting external opportunities. Other research results related to mangrove ecotourism development strategies with the SWOT method produced SO strategies as a type of directed strategy (Umam et al, 2015; Basyuni et al, 2016; Putra et al, 2015; Karlina, E, 2015;
Wati et al, 2016). While, the research results of Aspiany et al (2019) and Pratiwi (2018) used SWOT with the results of the type of ST strategy as the chosen strategy.

**Development Strategy Based on QSPM Analysis**

After performed SWOT analysis and the results of alternative strategies were obtained which will be directed to the development of the Cinta Mangrove Park ecotourism, then a QSPM analysis was conducted. This QSPM analysis was used to determine the main priority of alternative strategies (Wati, N et al, 2016; Aspiany et al, 2019). The alternative WO strategy consisted of: Strategy I. Activated cooperation with the government and environmental activists in improving awareness and interest in nature sustainability. Strategy II. Activated promotion in various media, Strategy III. Providing education and training about good ecotourism management to administrators and local communities and Strategy IV. Cooperated with the other mangrove ecotourisms for fund raising for the future mangrove ecotourism development. The stages of determining the strategic decisions that will be directed Cinta Mangrove Park ecotourism were described in the QSPM matrix formulation as follows:

| No | Critical Success Factors | Quality | Strategy I | Strategy II | Strategy III | Strategy IV |
|----|--------------------------|---------|------------|-------------|-------------|-------------|
|    |                          |         | Activated cooperation with the government and environmental activists in improving awareness and interest in nature sustainability | Activated promotion in various media | Providing education and training about good ecotourism management to administrators and local communities | Cooperated with the other mangrove ecotourisms for fund raising for the future mangrove ecotourism development |
|    |                          | AS      | TAS Value  | AS          | TAS Value  | AS          | TAS Value  |
| 1  | Local society support    | 0.105   | 3          | 0.315       | 4          | 0.420       | 4          | 0.420       |
| 2  | Interesting tourism area | 0.095   | 3          | 0.285       | 4          | 0.380       | 4          | 0.380       |
| 3  | Friendly and open society| 0.105   | 4          | 0.420       | 3          | 0.315       | 4          | 0.420       |
| 4  | Affordable accessibility | 0.105  | 4          | 0.420       | 4          | 0.420       | 4          | 0.420       |
| 5  | Diversity of mangrove species| 0.086 | 3          | 0.258       | 3          | 0.258       | 3          | 0.258       |
| Sub Total |  | 1,698 | 1,798 | 1,806 | 1,898 |

| No | Critical Success Factors | Quality | Strategy I | Strategy II | Strategy III | Strategy IV |
|----|--------------------------|---------|------------|-------------|-------------|-------------|
|    |                          | AS      | TAS Value  | AS          | TAS Value  | AS          | TAS Value  |
| 1  | Lack of local society awareness to the nature and environment sustainability | 0.102 | 4          | 0.408       | 2          | 0.204       | 3          | 0.306       |
| 2  | Lack of tourist facilities | 0.090 | 2          | 0.180       | 4          | 0.360       | 2          | 0.180       |
3. Lack of local society involvement 0.102 3 0.306 3 0.306 3 0.306 3 0.306
4. Lack of promotion. Lack of managements’ education and experience 0.114 3 0.342 4 0.456 4 0.458 4 0.456
5. Lack of promotion. 0.095 2 0.190 2 0.90 4 0.380 4 0.380

Sub Total 1,426 1,516 1,628 1,808

Source: Primary Data Analysis, 2019

Table 6. QSPM External Matrix

| No | Critical Success Factors | Quality | Strategy I | Strategy II | Strategy III | Strategy IV |
|----|--------------------------|---------|------------|-------------|--------------|-------------|
|    |                          |         | Activated cooperation with the government and environmental activists in improving awareness and interest in nature sustainability | Activated promotion in various media | Providing education and training about good ecotourism management to administrators and local communities | Cooperated with the other mangrove ecotourisms for fund raising for the future mangrove ecotourism development |
|    |                          |         | AS         | TAS Value   | AS           | TAS Value   | AS           | TAS Value   |
|    |                          |         | AS         | Value       | AS           | Value       | AS           | Value       |
| 1  | Human resource as available labor | 0.098   | 3          | 0.294       | 4            | 0.392       | 2            | 0.196       | 3            | 0.294       |
| 2  | Human recreation needs | 0.112   | 3          | 0.336       | 4            | 0.448       | 3            | 0.336       | 4            | 0.448       |
| 3  | Creating jobs and increasing income | 0.105   | 2          | 0.210       | 3            | 0.315       | 4            | 0.420       | 4            | 0.420       |
| 4  | Location that close to the capital of the province | 0.103   | 3          | 0.309       | 4            | 0.412       | 4            | 0.412       | 4            | 0.412       |
| 5  | Cooperation with outside parties. | 0.100   | 3          | 0.300       | 4            | 0.400       | 4            | 0.400       | 4            | 0.400       |
|    | Sub Total | 1,449   | 1,967      | 1,764       | 1,974        |

| No | Critical Success Factors | Quality | Threat | | |
|----|--------------------------|---------|--------| | |
|    |                          |         | Visitors’ action that damage the environment | 0.084 | 3 | 0.252 | 3 | 0.252 | 4 | 0.336 | 3 | 0.252 |
| 1  |                          |         | Extreme Weather Condition | 0.107 | 2 | 0.214 | 3 | 0.321 | 3 | 0.321 | 3 | 0.321 |
| 2  |                          |         | Competition of tourism between regions. Foreign culture entries that ruined local community’s moral and culture. | 0.100 | 3 | 0.300 | 4 | 0.400 | 4 | 0.400 | 4 | 0.400 |
| 3  |                          |         | Foreign culture entries that ruined local community’s moral and culture. | 0.086 | 2 | 0.172 | 3 | 0.258 | 4 | 0.344 | 3 | 0.258 |
Coastal abrasion occurred.

| Sub Total | 1,358 | 1,546 | 1,716 | 1,548 |
|-----------|-------|-------|-------|-------|
| Total of Internal External TAS | 5,931 | 6,822 | 6,911 | 7,226 |

Table 7. Strategy Priority based on the Total Attractiveness Score (TAS) Calculation

| Strategy | TAS  | Priority |
|----------|------|----------|
| Arranged fund raising and attracted investors to cooperate in facilities development | 7,226 | 1 |
| Provided education and training about a good ecotourism management to the administrators and local society | 6,911 | 2 |
| Activated promotion in various media | 6,822 | 3 |
| Activated the cooperation with the government and environmental activist in improving nature sustainability awareness and interest | 5,931 | 4 |

Source: Primary Data Analysis, 2019

The results of the Total Attractiveness Score (TAS) calculation from internal and external factors can be arranged priority strategies based on the highest value to the lowest value as described in Table 7. The table concluded that the priority strategy I was Arranged fund raising and attracted investors to cooperate in facilities development with the highest TAS value of 7,226.

CONCLUSION

The results of the SWOT analysis formulated the Cinta Mangrove Park ecotourism development strategy, which was the weakness-opportunity (WO) strategy. That mean to revise internal weaknesses by exploiting external opportunities. Alternative strategies for developing the Cinta Mangrove Park ecotourism in Mempawah Regency were as follows: Strategy I. Activated the cooperation with the government and environmental activist in improving nature sustainability awareness and interest. Strategy II. Activated promotion in various media, Strategy III. Provided education and training about a good ecotourism...
management to the administrators and local society and Strategy IV. Arranged fund raising and attracted investors to cooperate in facilities development. The main priority of Cinta Mangrove Park ecotourism development strategy was the type of Strategy IV that was arranged fund raising and attracted investors to cooperate in facilities development.

RECOMMENDATION

Arranged fund raising to develop and improve the Cinta Mangrove Park ecotourism facilities can be performed through collaboration with private parties, state-owned enterprise/SOEs in corporate social responsibility (CSR) programs and develop cooperation through the Partnership and Community Development Program. The role of the government was very really needed in arrange fund raising for the development of mangrove ecotourism. Cooperation and cohesiveness between the local society needed to be develop continuously so that the existence of Cinta Mangrove Park can be maintained, taken care of and sustainable.

Considering the variables in this research were only based on the internal and external environment of the Cinta Mangrove Park ecotourism, it was expected that the sustainability of the results of this research can be developed through other researches by observing the perceptions and the levels of satisfaction of the ecotourism visitors. Therefore, gave broader inputs contribution to the development of the Cinta Mangrove Park ecotourism.

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