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## **PLANNING SEAWEED FARMING BASED ECOTOURISM: A TOURISM SPECTRUM APPROACH IN BANTAENG REGENCY, INDONESIA**

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### **Abstract**

Ecotourism allows tourism policymakers and the community to manage nature-based tourism. However, although ecotourism is a promising idea or concept, this opportunity is only partially a reality. It requires a particular study relative to the current conditions of the destination and other aspects that can support the implementation of ecotourism. The objectives of this study are to 1) examine the opportunities for implementing ecotourism in a coastal area, Bantaeng regency of Indonesia; 2) analyse the environmental impacts resulting from seaweed-farming activities and their relation to tourism. This research, conducted in June 2020, applies a qualitative method. Data-collection methods included interviews with seaweed farmers, field notes (observation) and a review of published information online. This study utilises the *tourism opportunity spectrum* (TOS) in analysing the current conditions in the research location. The results showed that floods caused crop failure, prompting the need for alternative income for the community to survive. Ecotourism can represent an opportunity for seaweed-farming communities if on-site management factors and goals are applied with the principle of sustainability. This study found that TOS helps understand the impact resulting from the activities of the seaweed-farming community in Bantaeng regency—the use of massive numbers of plastic bottles as floats conflicts with the principle of ecotourism. The TOS approach views ecotourism planners, including the government and the tourism industry, as being able to open educational opportunities for the community and visitors.

**Keywords:** Bantaeng Regency, Ecotourism, Tourism Opportunity Spectrum, Seaweed-Farming

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## **INTRODUCTION**

Ecotourism and nature-based tourism are types of tourism that continue to develop along with the increasing human awareness of conserving natural resources. Various academics in the world, especially in Indonesia, study various aspects of ecotourism, including its recent identification with the use of natural resources for tourism (Azinuddin et al., 2022a; 2022b; Fifiyanti & Damanik, 2021; Kasmiasi & Dharmawan, 2016; Phelan et al., 2020; Prasetyo et al., 2020). Often associated with nature conservation, the management of natural resources still pays attention to the sustainability of nature. Ecotourism is the choice of most policymakers at the regional level when tourism is an option for regional development.

The implementation of ecotourism can represent an opportunity for the community, especially the local government, if an area or destination notices and applies ecotourism principles. The various advantages of ecotourism can be a driving force for realising these ecotourism goals (Masud et al., 2017; Orams, 2002; Tsaur et al., 2006; Wu & Chen, 2018), including nature preservation, economic benefits for local communities and the quality of tourist visits through educational tours. Therefore, ecotourism is an opportunity to attract foreign and domestic tourists to visit a destination.

However, although ecotourism is a promising idea or concept, this opportunity is not fully a reality. Those thinking about tourism's potential and opportunities have not fully considered its natural potential and implications for the life of its people. Therefore, even though ecotourism is the right concept to adopt to develop Indonesian tourism, it requires a particular study relative to the current conditions of the destination and other aspects that can support the implementation of ecotourism. Dimitriou (2017) argues that there is still a gap between the theory and practice of ecotourism, and thus, effective strategies are required to achieve ecotourism's goals. This research examines from a tourism perspective the opportunities for planning and implementing ecotourism in Cabodo village, Bantaeng regency, South Sulawesi province, where the community works as seaweed breeders.

Bantaeng regency, South Sulawesi province, and especially Makassar city have become preferred destinations for most domestic tourists in Indonesia. The travel distance of about 3 (three) hours from Makassar city qualifies Bantaeng regency as the primary choice for those seeking a different atmosphere for tourism activities. Various locations have become attractions for domestic tourists visiting Bantaeng regency, including Seruni beach and Marina beach, as well as the beautiful Bantaeng city area. The activity of seaweed-farming farmers on the coast can also be an ecotourism opportunity in Bantaeng regency. However, the existence of seaweed breeders is only a livelihood commodity.

Travel businesses or the larger community have yet to make seaweed-farming activities an opportunity for attracting tourists.

This study aims to 1) examine the opportunities for planning and implementing ecotourism in the coastal area; 2) analyse the environmental impacts resulting from seaweed-farming activities and their relation to tourism. This study utilises the tourism opportunity spectrum theory to analyse the current conditions in Cabodo Village, Bantaeng regency. The tourism opportunity spectrum is a comprehensive planning approach for understanding the supporting aspects of implementing ecotourism in a destination. This research contributes to the analysis and understanding of ecotourism in a destination by using the concept of the tourism opportunity spectrum.

## **LITERATURE REVIEW**

### **Defining Ecotourism**

*Ecotourism* is a popular term that practitioners and academics use in proposing the importance of preserving natural resources for tourism potential. Ecotourism and nature-based tourism are often used interchangeably since ecotourism uses more of nature for tourism purposes. Three characteristics of the application of ecotourism in a destination are 1) making a beneficial impact on local communities without massively exploiting the economic and social systems; 2) protecting and conserving natural, cultural and environmental resources; 3) requiring ethical behaviour from tourists or visitors and supporting the role of the tourism industry in carrying out tourism activities (Butcher, 2007; Cater, 2004; Dawson, 2008; Handriana & Ambara, 2016).

The idea of ecotourism was born from a combination of tourists, the environment and the culture of the people in a destination. Fennell (2015) argues that the concept of ecotourism first emerged from the work of Hetzer (1965), which explains the inseparable relationship between tourists, environment and culture, where the interaction between the community and the tourists elevates the importance of building positive interactions. Ecotourism as “low impact nature tourism which contributes to the maintenance of species and habitats either directly through a contribution to conservation and/or indirectly by providing revenue to the local community is sufficient for local people to value, and therefore protect, their wildlife heritage area as a source of income” (Goodwin, 1996:288). This definition emphasises the use of nature, with various species of living things and their habitats, for tourism purposes. Humans take advantage of nature through tourism activities, which, in turn, provide economic benefits for humans (Azinuddin et al., 2022c). These benefits give rise to hope and desire to protect and conserve nature with its various species, so that they may become a sustainable source of income.

The opportunity for ecotourism management is inseparable from the destination's community and policymakers (e.g. local government). This is why there is an emphasis on collaboration between the community and destination stakeholders (Azwar et al., 2023). Ecotourism is a type of tourism that emphasises the sustainability of nature and its people (Blamey, 2001; Dehoorne & Tatar, 2013; Hein et al., 2018; Hussin et al., 2022; Rukmana, 2015). Motivation and interest in learning about nature drive ecotourism tourists. Thus, ecotourism qualifies as a type of special-interest tourism (Blamey, 2001; Fennell, 2015; Phelan et al., 2020; Winson, 2006). As the principle of ecotourism, environmental education offers tourists a learning experience about the environment and its various species. Therefore, as part of a tourism product, a tour provides an experience in understanding environmental conservation. Nature as a tourist destination is the focus of a tourist's trip. Ecotourism uses nature (including its cultural aspects), offering information and experiences to tourists, which, in turn, will encourage motivation and interest in preserving these natural and cultural resources.

### **The Concept of Tourism Opportunity Spectrum**

The term *tourism opportunity spectrum* (TOS) has been widely used to benefit frameworks and procedures for assessing tourism issues (Boyd & Butler, 1996; Huang & Confer, 2009). The utilisation of TOS comprises several components, namely, management objectives, accessibility factor, visual characteristics factor, environmental impact factor for visitors, location management factor, social interaction factor and visitor management factor (Dawson, 2008). The term TOS is also often associated with ROS, or *recreation opportunity spectrum*. Since the 1970s, the Bureau of Land Management in the United States has used the concept of ROS (Clark & Stankey, 1979; Dawson, 2008; Wellton et al., 2018).

Tourism destinations can attract tourists based on nature and ecotourism potential. At the same time, tourism planners also have the opportunity to develop other types of tourism according to the potential tourism products of a destination. Tourism planners can use the TOS approach to connect the various types of tourism owned and promoted by destination managers. Ecotourism tourists are not solely looking for ecotourism experiences but need other tourism activities to improve the quality of the travel experience. Increased demand for travel to ecotourism destinations can be a driving force to increase further efforts to conserve natural resources. TOS enables the development of tourism destinations by linking and integrating nature conservation and educational processes for tourists.

Planning and tourism destinations are related, allowing policymakers to manage destinations sustainably. Ecotourism area has characteristics that may attract tourists to gain relevant experience. TOS or ROS is essential to analyse an

area's characteristics and implement sustainable ecotourism strategies (Suksmawati et al., 2021). Tourists will utilise facilities to support their ecotourism activities. TOS approach enables ecotourism policy makers and managers to plan and implement strategies for such tourists' activities (Carroll & Hession, 2015).

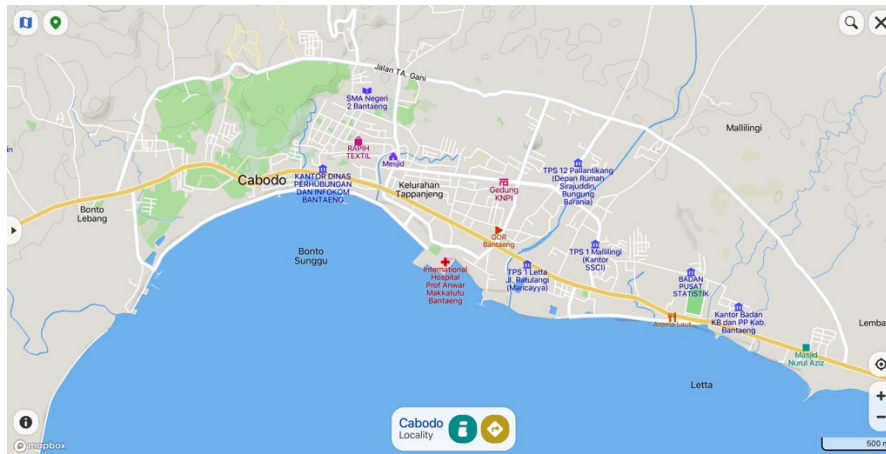
Dhami & Deng (2018) use the term ROS to examine the relationship between tourist attractions and tourist spending in tourism destinations. According to Dhami and Deng (2017), ROS can be used in planning and managing tourist attractions in various regions (Lu, 2023). ROS or TOS includes an analysis of a tourism area and can also examine ecotourism areas. TOS is essential for assessing an environment's sustainability as a tourist location or area. Tourists or residents who want to carry out recreational activities can choose an open area as a tourist location. An environmental impact assessment in an ecotourism area can utilize the TOS principle. Thus, destination managers can plan and implement strategies to minimize the impact on environmental damage.

## **RESEARCH METHODOLOGY**

This study employs a qualitative approach to understanding community activities in the coastal area through tourism opportunity spectrum theory. Qualitative research is relevant for understanding the social conditions of a tourism destination (Decrop, 2004). The information that informants provide is the main data for understanding community expectations. The information aligns with the research objectives regarding the possibility of the ecotourism concept becoming an option other than just the daily activities of a seaweed farmer in the area. The research was conducted in June 2020 by visiting Cabodo village and the surrounding area in Bantaeng regency (see Figure 1). The research area can represent the management of seaweed farming in Sulawesi, Indonesia.

This study used data from interviews with seaweed farmers along the coastal area of Bantaeng regency. Fifteen people participated as research informants. The authors informed the research objectives to informants before the interview process. In addition, the authors received research instructions and permission from the institution (Letter of Research Assignment No. KP. 105/115/14/Poltekpar/2020) as a legal basis for collecting research data in the Bantaeng regency village of seaweed farmers.

Field notes recorded direct observation of the actual conditions of the coastal area and local community activities also constitute the primary data of this study. The authors used these observations to take pictures at the research location, additional data for analysing social phenomena that occurred. The authors also used secondary data from Internet sources to support the argument from primary data. All qualitative data were analysed using the principles of qualitative data analysis, including data reduction, presentation and conclusion.



**Figure 1:** Cabodo Village map in Bantaeng Regency  
*Source: Mapcarta (2023)*

## ANALYSIS AND DISCUSSION

### Flood Disaster and its Impact on Seaweed Farmers in Bantaeng Regency

On Friday, 12 June 2020, a flash flood hit Bantaeng Regency and several surrounding districts. The rain flushed Bantaeng City from 17.00 until late at night. The flash-flood disaster occurred at night when the community did not have time to prepare to save assets from the flood. Rain throughout the night caused Bantaeng regency to experience flash floods in several areas. Flash floods have also hit people living in coastal areas. The areas that flash floods affected include Pallantikang village, Tappanjeng village, Malround village, Bonto Rita village, Bonto Sunggu village, Bonto Atu village, Bonto Lebang Village, Bonto village and Bonto Majannang village. The flash-flood disaster in Bantaeng regency killed one community member.

The most significant impact of this flash flood was on the people living in the coastal area in Cabodo village, Bissappu district. The people living in Cabodo village are seaweed farmers. Various media conveyed the impact of the flood disaster on people's lives. *Tribun Timur* in Bantaeng reported the plight of community members in Cabodo village. A community member stated that 'two tons of seaweed has been damaged due to exposure to fresh water. It costs around 10 million to cover cultivating two tons of seaweed; her husband has to borrow IDR 1,500,000 due to the loss; her husband did not know how to pay off his debt' (*tribun timur.com*). Most community members who suffered losses, including the equipment used to farm seaweed, had damage. As a result, this society could not earn income for their living. A community member stated, "Everything can't be used, the seeds per kilogram are IDR 4000; everything failed, sir. I told the

fisheries how this seaweed is because we really need help and seeds because time is so short” (interview, June 2020).

The community in Bantaeng described the flood as an extraordinary event. The flood damaged the livelihoods of people who make the sea and coastal areas their economic activity. For seaweed farmers, flooding has damaged the community's economy. Community members expressed 'big waves and blackouts, and we do not know which one we have (seaweed). For the repairs, we need about IDR 3 million. The activity is now clearing the landscape; if seeds are being worked on, if not, then I go to Makassar to find work as a construction worker. If I go down again, I will go down to Makassar again' (interview, male aged 30s, 20 June 2020). The flood eliminated people's livelihoods. When the research was conducted, the community received no assistance and stated, 'If in the regional head election, the crop failure will be replaced. When officials convey their vision and mission if the seaweed harvest fails, the money will be replaced, and they will be assisted. However, no financial assistance exists (interview, June 2020).

The risk of flooding and other disasters can occur in every area of a destination. This community statement is why the community must acquire an understanding of finding alternative livelihoods apart from seaweed farming. The community tends to depend on one type of business, seaweed farming. Meanwhile, other business opportunities still need to be addressed. This study recommends the tourism business as an opportunity for people in coastal areas could choose to manage a business.

### **Seaweed Farmers' Activities and their Impact on Environmental Sustainability**

People who live around coastal areas generally manage seaweed-farming in the Cabodo coastal area, the area that the flooding most affected. Seruni beach, the tourism icon of Bantaeng regency, borders the Cabodo area. Tourists arriving in Bantaeng regency will generally visit Seruni beach, which offers the experience of enjoying a café, relaxing activities, enjoying the sunset and exercising. The Seruni beach area is the centre of casual activities of the Bantaeng community and its tourists. The coastal area beyond Seruni beach also contains seaweed management for people living there. Compared to Cabodo, this area does not appear to have been affected by the flash-flood disaster (*Banjir Bandang*) and this area has successfully harvested seaweed products, unaffected by the flash-flood disaster.

Seaweed management by coastal communities can be seen directly from the road along the coastal area. The stretch of farmers' hooks at sea level is visible from the highway. The seaweed hooks stretch along the sea surface, covering the sea level, so the sea area around the coast's edge appears to be an

extensive stretch of hook. The stretch of the hook can be seen in May, June, July and even throughout the year, depending on the community's seaweed-farming activities. According to farmers, the season for harvest is these three months.

The hook is made of mesh that is attached using plastic bottles. The bottles floating above sea level result from the seaweed farmers' activities, and plastic bottles are used so that the hook where the seaweed grows can float. The authors asked about the reason for using plastic bottles. The informant said, 'these bottles are the binder, sir. I have used other tools, but it is useless; the result is that the hook sinks, cannot stand it. So finally, I used the bottle as an anchor to keep the hook from sinking' (Informant aged 40s, interview, June 2020).



**Figure 2:** Plastic bottles used for seaweed farming in Bantaeng regency  
*Source: Authors, 2020*

The farmers argued that the bottles were not thrown overboard but burned. Some of these plastic bottles are also sold, so the farmers get a profit from the sale. However, the authors' observations indicate that plastic bottles tend to become garbage, scattered around the coast. The amount of plastic-bottle waste that has accumulated is a result of the use of plastic in the seaweed-farming process. All seaweed farmers in Bantaeng regency use plastic bottles as a tool for seaweed-farming activities. As a result, plastic bottles fill the sea area around the coast in Bantaeng regency. Figure 2 shows the plastic bottles in massive numbers that become rubbish.

The use of plastic bottles by seaweed farmers may damage marine life in the waters of Bantaeng regency. Plastic bottles in large quantities can also



become waste and difficult to control. Although the residents' arguments justify their actions, the authors argue that plastic bottles can damage the environment. Seaweed-farmer activity can attract tourists but threatens environmental conservation. Travellers who pass on the road of Bantaeng regency may stop to see the seaweed farmers' traditional activities. Arguably, seaweed farming attracts travellers and can become a tourist attraction. Figure 3 shows seaweed-farming activities by local people.



**Figure 3:** Harvesting of seaweed by seaweed farmers  
*Source: Authors, 2020*

Figure 3 indicates the successful harvesting of seaweed by the local people. The authors noted that the local people did not suffer from the flood, unlike Cabodo village. The local people also use plastic bottles to run their seaweed farming. Most seaweed farmers use plastic bottles; visitors who pass the coastal area or stop to see the local people's traditional activities can see the sea's surface around the coastal area.

### **The Opportunity for Implementing Ecotourism in the Coastal Area of Bantaeng Regency**

Tourism activities, especially ecotourism, have yet to be fully considered as an alternative strategy to increase people's income. Tourism development is more focused on existing tourist attractions, with promotional efforts carried out by the local governments and tourism business managers. For example, Seruni beach is a leading, iconic tourist attraction in the Bantaeng regency because it offers various activities for tourists. In addition, other tourist attractions—for example, Eremerasa waterfall and Marina beach—are also promoted as tourist attractions. However, the lives of people living on the coast, who cultivate seaweed, have not

been fully touched in terms of its utilisation as a tourist and promotional attraction.

The community said that there had been tourist visits to their area. However, the purpose of their arrival is only interpreted as the activity of outsiders who see the lives of fishermen and seaweed farming. The value of the benefits of tourist arrivals has not been felt significantly because the understanding of tourism still needs to be improved. Nevertheless, tourist visits provide opportunities that the community might take as a form of participation in tourism activities. In other words, outsiders who visit the Bantaeng regency and pass the road there get to other regencies can support the local people's ability to manage seaweed-based ecotourism.

Ecotourism is a type of tourism the community can manage (Bello et al., 2017). Indeed, implementing ecotourism management requires conditions where the community, local government and various parties will work together to encourage tourism activities. From the tourism opportunity spectrum analysis perspective, the following describes those conditions.

### **1. Goal of ecotourism management**

Regarding management goals, the community must understand the aims and objectives of implementing ecotourism. The preservation of marine resources as the location for seaweed cultivation must ensure that farmers' activities do not damage the marine environment. The use of plastic bottles is currently one of the main activities of the local population that opposes conservation goals. The local government has tried to encourage people to replace plastic bottles with other buoys that are more environmentally friendly. The local government has provided training, such as the following statement: 'Now there is a solution for farmers, namely, replacing floats from plastic bottles with a kind of environmentally friendly buoy. If plastic floats are used, at least one or two harvests are replaced and that adds to the waste. If you use a long-term environmentally friendly buoy, you can manage the long practice of seaweed management (Upeks.co.id., 2019).

The use of plastic bottles should be stopped and replaced by other means. Ecotourism tourists come to see the seaweed-cultivation process. Community activities must be carried out by implementing the principle of environmental preservation. Seaweed cultivation and environmental conservation activities are the selling points of ecotourism in Bantaeng regency. Therefore, the first step in implementing ecotourism must be to determine the goal of preserving nature while continuing to cultivate seaweed. The local government should provide mechanisms and regulations for the management of seaweed farming, emphasising providing alternative ways to run seaweed farming and avoiding the use of plastic bottles.

## **2. Accessibility factor**

In terms of accessibility, Cabodo Village has an advantage over other tourist attractions in Bantaeng regency. The location is very close to Seruni beach, the location that most tourists visit for recreational purposes. To reach the Cabodo village area, tourists can very easily visit because it is just adjacent to Seruni beach. However, in the absence of a tour package and not yet having implemented ecotourism, a visit to this location cannot be developed. Stewart et al. (2016) conducted a research in West Indies and found that ecotour package is essential to provide alternative livelihood for the local fisher through ecotourism. Accessibility, in terms of distance and mode of transportation, could support the implementation of ecotourism based on seaweed cultivation.

## **3. Visual Characteristic Factor**

Seen from the perspective of visual characteristic description, tourists can directly see the coastal location with seaweed-cultivation activities by farmers. The landscape of seaweed cultivation is a recurring reality. However, this stretch also shows activities that do not preserve the environment, due to the use of plastic bottles. Therefore, ecotourism can be realised if the community switches to environmentally friendly activities, the main one being seaweed farming.

## **4. Environmental impact factors of tourists' visit**

From the point of view of the environmental impact of tourist visits, that impact is still very small. However, a potentially negative impact is very likely without regulations for visitors. Ecotourism planners and managers must prepare signs or codes of ethics for visitors who will carry out ecotourism activities. "Travel with primary interest in the natural history of a destination. It is a form of nature-based tourism that places about nature first-hand emphasis on learning, sustainability (conservation and local participation/benefits), and ethical planning, development and management (Fennell, 2015: 17). Such definition indicates that ecotourism is about how to develop and manage natural resources sustainably through tourism. Utilise natural resources for tourism should ensure the conservation of nature. In other words, there should efforts to avoid negative impacts to the environment.

## **5. Infrastructure Factor**

Infrastructure is a major factor in managing nature as an ecotourism-based tourist attraction. The infrastructure needed to manage ecotourism in Cabodo village is good roads, good transportation with a priority on safety and comfort for tourists and a tourism information centre. Soft infrastructure, in terms of human resource development, should become the priority of policymakers for the ecotourism program to succeed.

## **6. Social Interaction Factor**

The hospitality of the people in Cabodo village provides an opportunity to apply it to ecotourism. Local residents must maintain the principle of hospitality when tourists visit. Most tourists require good hospitality from the host people; they will experience ecotourism through the services that the local people provide.

## **7. Visitor Management**

From the perspective of visitor management, the opportunity for tourists to take advantage of various types of transportation enables the realisation of ecotourism activities. The existence of a *bendi* (a local means of transportation using horses) is an additional attraction that tourists can use. One aspect of visitor management is the use of local transportation. Traditional boats can be a support in carrying out maritime-based ecotourism activities and cultivating seaweed. The application of ecotourism will be realised if visitor management is implemented by utilising the community and traditional transportation systems to support ecotourism activities.

## **CONCLUSION**

This study utilises a tourism opportunity spectrum approach to answering research problems related to ecotourism. Community life among seaweed farmers in Bantaeng regency offers opportunities for the management and development of natural ecotourism. Seven factors become the setting characteristics of the tourism opportunity spectrum, the theoretical framework in this study. On-site management and management goals are two factors to which the government and local communities should pay attention if the ecotourism concept is an option in tourism management. In addition, opportunities for ecotourism management can run if the preservation and protection of marine and coastal areas include applying sustainability principles.

Community activities that use plastic bottles as buoys can become an obstacle to implementing ecotourism in the coastal area of Bantaeng regency. The use of plastic bottles in large quantities can cause a decrease in environmental quality. Environmental impact, in the form of pollution due to plastic bottles, is contrary to ecotourism principles. Therefore, this study recommends implementing the characteristics of the tourism opportunity spectrum to achieve the goals of ecotourism. The involvement of community members in implementing the principles of ecotourism will be greatly supported by the readiness of the government and community organisations to avoid the negative impact of using plastic bottles in seaweed cultivation.

Analysis of the tourism opportunity spectrum (TOS) can be an analytical tool for understanding the conditions in the coastal area. The TOS approach views ecotourism planners, namely the government and the tourism

industry, as able to open educational opportunities for the community and visitors. Furthermore, the ecotourism manager, the community, can carry out its functions and roles if the people understand the position and objectives of seaweed-based ecotourism management that the community manages. This study found that TOS helps understand the impact resulting from the activities of the seaweed-farming community in Bantaeng regency. Ecotourism can be an opportunity for such seaweed-farming communities, especially those that experience crop failure due to flooding. This paper provides insight into the local people who live in the coastal area and potentially suffer from disaster. Hence, the local people having an alternative source of income to sustain their livelihood is essential.

## REFERENCES

- Azinuddin, M., Hanafiah, M. H., Mior Shariffuddin, N. S., Kamarudin, M. K. A., & Mat Som, A. P. (2022a). An exploration of perceived ecotourism design affordance and destination social responsibility linkages to tourists' pro-environmental behaviour and destination loyalty. *Journal of Ecotourism*, 1-24.
- Azinuddin, M., Mohammad Nasir, M. B., Hanafiah, M. H., Mior Shariffuddin, N. S., & Kamarudin, M. K. A. (2022b). Interlinkage of Perceived Ecotourism Design Affordance, perceived value of destination experiences, destination reputation, and loyalty. *Sustainability*, 14(18), 11371.
- Azinuddin, M., Zain, W. M. A. W. M., & Shariffuddin, N. S. M. (2022c). Tourism Sustainability: Perspectives on past works, issues and future research opportunities. In *Environmental Management and Sustainable Development: Case Studies and Solutions from Malaysia* (pp. 39-51). Cham: Springer International Publishing.
- Azwar, H., Hanafiah, M. H., Abd Ghani, A., Azinuddin, M., & Shariffuddin, N. S. M. (2023). Community-Based Tourism (CBT) moving forward: Penta helix development strategy through community local wisdom empowerment. *Planning Malaysia*, 21, 72-88.
- Bello, F. G., Lovelock, B., & Carr, N. (2017). Constraints of community participation in protected area-based tourism planning: The case of Malawi. *Journal of Ecotourism*, 16(2), 131–151. <https://doi.org/10.1080/14724049.2016.1251444>
- Blamey, R. K. (2001). Principles of ecotourism. In D. B. Weaver (Ed.), *The encyclopedia of ecotourism*. CABI.
- Boyd, S. W., & Butler, R. W. (1996). Managing ecotourism: An opportunity spectrum approach. *Tourism Management*, 17(8), 557–566. [https://doi.org/https://doi.org/10.1016/S0261-5177\(96\)00076-3](https://doi.org/https://doi.org/10.1016/S0261-5177(96)00076-3)
- Butcher, J. (2007). *Ecotourism, NGOs and development: A critical analysis*. Routledge.
- Carroll, J., & Hession, K. (2015). Developing a tourism opportunity spectrum scale. *Journal of Tourism Insights*, 6(1). <https://scholarworks.gvsu.edu/jti/vol6/iss1/2/>
- Cater, E. (2004). Ecotourism: Theory and practice. In A. A. Lew, C. M. Hall, & A. M. Williams (Eds.), *A companion to tourism* (pp. 484–497). Blackwell.
- Clark, R. ., & Stankey, G. H. (1979). *The recreation opportunity spectrum: A framework*

- for planning, management and research. General technical Report PNW-GTR-98. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5346574.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5346574.pdf)
- Dawson, C. P. (2008). Ecotourism and nature-based tourism: One end of the tourism opportunity spectrum. In S. F. McCool & R. N. Moisey (Eds.), *Tourism, recreation and sustainability: Linking culture and the environment* (pp. 38–50). CABI.
- Decrop, A. (2004). Trustworthiness in qualitative tourism research. In J. Phillimore & L. Goodson (Eds.), *Qualitative research in tourism: Ontologies, epistemologies and methodologies* (pp. 156–169). Routledge.
- Dehoorne, O., & Tatar, C. (2013). Ecotourism at the heart of development strategies: Elements for reflections based on the caribbean experience. *Tourismos*, 8, 213–231.
- Dhami, I., & Deng, J. (2018). Linking the recreation opportunity spectrum with travel spending: A spatial analysis in West Virginia. *Leisure Sciences*, 40(6), 508–532. <https://doi.org/10.1080/01490400.2016.1252705>
- Dimitriou, C. K. (2017). From theory to practice of ecotourism: Major obstacles that stand in the way and best practices that lead to success. *European Journal of Tourism, Hospitality and Recreation*, 8(1), 26–37. <https://doi.org/10.1515/ejthr-2017-0004>
- Fennell, D. A. (2015). *Ecotourism; fourth edition*. Routledge.
- Fifiyanti, D., & Damanik, J. (2021). Pemetaan peran dan kontribusi pemangku kepentingan dalam pengembangan ekowisata desa Burai. *Jurnal Ilmu Sosial Dan Humaniora*, 10(3), 448–462. <https://doi.org/https://doi.org/10.23887/jish-undiksha.v10i3.36893>
- Goodwin, H. (1996). In pursuit of ecotourism. *Biodiversity & Conservation*, 5(3), 277–291. <https://doi.org/10.1007/BF00051774>
- Handriana, T., & Ambara, R. (2016). Responsible environmental behavior intention of travelers on ecotourism sites. *Tourism and Hospitality Management*, 22(2), 135–150. <https://doi.org/https://doi.org/10.20867/thm.22.2.4>
- Hein, M. Y., Couture, F., & Scott, C. M. (2018). Ecotourism and coral reef restoration: Case studies from Thailand and the Maldives. In B. Prideaux & A. Pabel (Eds.), *Coral reefs: Tourism, conservation and management* (pp. 137–150). Routledge.
- Huang, C., & Confer, J. (2009). Applying the tourism opportunity spectrum model in nature-based tourism management. *Managing Leisure*, 14(4), 247–257. <https://doi.org/10.1080/13606710903204449>
- Hussin, R., Latip, N., Md Shah, J., Pingking, A., Samsul, S., & Datu Nordin, D. (2022). Ecotourism activities, homestay recovery plan and strategy indicators in post Covid-19 Kundasang, Sabah, Malaysia. *PLANNING MALAYSIA: Journal of the Malaysian Institute of Planners*, 20(4), 101–114. <https://doi.org/http://dx.doi.org/10.21837/pm.v20i23.1154>
- Kasmiati, & Dharmawan, A. H. (2016). Ecotourism, livelihood System and decoupling sustainability in Wakatobi, Southeast Sulawesi. *Sodality: Jurnal Sosiologi Pedesaan*, 4(2), 158–164. <https://doi.org/https://doi.org/10.22500/sodality.v4i2.13391>
- Lu, W. (2023). Construction of recreation opportunity spectrum (ROS) in urban landscape areas - A case study of Chongqing, China. *Academic Journal of Humanities & Social Sciences*, 6(1).

- Mapcarta (2023). Cabodo. Retrieve from <https://mapcarta.com/25819514>
- Masud, M. M., Aldakhil, A. M., Nassani, A. A., & Azam, M. N. (2017). Community-based ecotourism management for sustainable development of marine protected areas in Malaysia. *Ocean & Coastal Management*, 136, 104–112. <https://doi.org/https://doi.org/10.1016/j.ocecoaman.2016.11.023>
- Orams, M. B. (2002). Marine ecotourism as a potential agent for sustainable development in Kaikoura, New Zealand. *International Journal of Sustainable Development*, 5(3), 338–352. <https://doi.org/10.1504/IJSD.2002.003757>
- Phelan, A., Ruhanen, L., & Mair, J. (2020). Ecosystem services approach for community-based ecotourism: Towards an equitable and sustainable blue economy. *Journal of Sustainable Tourism*, 28(10), 1665–1685.
- Prasetyo, N., Carr, A., & Filep, S. (2020). Indigenous Knowledge in marine ecotourism development: The case of Sasi Laut, Misool, Indonesia. *Tourism Planning & Development*, 17(1), 46–61. <https://doi.org/10.1080/21568316.2019.1604424>
- Rukmana, I. (2015). Strategi Pengelolaan Museum Benteng Vredeburg sebagai Daya Tarik Wisata Warisan Budaya di Yogyakarta. *Tata Kelola Seni*, 5(2), 103–119.
- Stewart, K. M., Norton, T. M., Tackes, D. S., & Mitchell, M. A. (2016). Leatherback ecotourism development, implementation, and outcome assessment in St. Kitts, West Indies. *Chelonian Conservation and Biology*, 15(2), 197–205. <https://doi.org/https://doi.org/10.2744/CCB-1165.1>
- Suksmawati, H., Lily, S. ., & Firdaus, P. (2021). Recreation opportunity spectrum analysis of strategic area tourism destination Pelang region. *E-Journal of Tourism*, 8(2), 172–183. <https://doi.org/10.24922/eot.v8i2.77562>
- Tsaur, S. H., Lin, Y. C., & Lin, J. H. (2006). Evaluating ecotourism sustainability from the integrated perspective of resource, community and tourism. *Tourism Management*, 27(4), 640–653. <https://doi.org/10.1016/j.tourman.2005.02.006>
- Upeks.co.id. (2019). *DPK Bantaeng harap petani rumput laut gunakan ecoflot*. <https://upeks.id/2019/08/dpk-bantaeng-harap-petani-rumput-laut-gunakan-ecoflot/>
- Wellton, L., Jonsson, I. M., & Svingstedt, A. (2018). “We are service people, and we stay until the job is done”: enactments of professionalism in restaurants. *Journal of Teaching in Travel & Tourism*, 18(4), 265–283.
- Wight, P. (1993). Ecotourism: Ethics or eco-sell? *Journal of Travel Research*, 31(3), 3–9. <https://doi.org/10.1177/004728759303100301>
- Winson, A. (2006). Ecotourism and Sustainability in Cuba: Does Socialism Make a Difference? *Journal of Sustainable Tourism*, 14(1), 6–23.
- Wu, S.-T., & Chen, Y.-S. (2018). Local intentions to participate in ecotourism development in Taiwan’s Atayal communities. *Journal of Tourism and Cultural Change*, 16(1), 75–96. <https://doi.org/10.1080/14766825.2016.1253705>

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