

## **COMMUNITY-BASED ECOTOURISM IN PANTAI CUNANG, SELANGOR**

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### **ABSTRACT**

Ecotourism, one of the many types of tourism, is defined by Wallace and Pierce (1996) as an activity of visiting natural areas for learning, having fun and providing voluntary assistance. While tourism industry is a vital economic sector in any country, it comes with positive and negative effects on certain aspects. One approach commonly adopted in managing ecotourism, and thus reducing the negative effects is involving the community. Community-based Ecotourism Management (CBETM) involves the local community in its development, operation and management, where a substantial portion of the benefits remain within the community. This unique aspect of tourism management has sparked interest in conducting this study. This study aims to investigate the perception of the local community on ecotourism and community-based ecotourism management, and seeks to make sense of stakeholders' involvement in community-based ecotourism management. A combination of quantitative and qualitative methodologies was applied in this research, with interviews and surveys being the primary data collection approaches; while descriptive statistical and thematic analyses were applied as data analysis techniques. Pantai Cunang, in Tanjung Sepat, Selangor, was chosen as the study area. This study has found that the community in Pantai Cunang perceived that community-based ecotourism in the area has a relatively minimal negative impact on environmental and socio-economic aspects, but lack of participation of the local community. This finding benefits the authorities in understanding the importance of good involvement in decision-making processes to conserve and preserve the existing flora and fauna and maintain the sustainability of ecotourism.

**Keywords:** *community-based ecotourism management, community participation, ecotourism perception, Mah Meri community, sustainable development*

### **INTRODUCTION**

Malaysia is known for its tourism activities, especially ecotourism. According to the official statistical data released by the Ministry of Tourism, Arts and Cultural (MOTAC), Malaysia was ranked 20th in total tourism revenue in 2017, with an income of US\$18.1 billion. However, the number of visitor arrivals and domestic tourism expenditure declined in 2020 and 2021 due to the COVID-19 pandemic. According to United Nations World Tourism Organisation (UNWTO), ecotourism is all forms of nature-based tourism in which the primary motivation of the tourists is to observe and appreciate nature and the traditional cultures that exist in natural areas.

The International Ecotourism Society (TIES) defines ecotourism as a responsible travel trip to natural areas that protect the environment, support local people's well-being, and include interpretation and education. Ecotourism refers to environmentally sustainable travel and visitation to relatively undisturbed natural areas. This type of tourism emphasizes the conservation of natural attractions such as wildlife protection centres, national parks, highlands and islands. Malaysia is well known for its tropical rainforest, which is rich in species of flora and fauna. In this type of tourism activity, tourists will not only enjoy the natural environment but also helps to raise awareness among tourists. Therefore, ecotourism is believed to help conserve and preserve the natural environment. In addition, this activity also contributes to the socio-economic aspects of the surrounding area.

Nonetheless, while ecotourism emphasizes on nature preservation and conservation, lack of environmental management in ecotourism areas such as national parks raises several issues. For example, tourism will seize the opportunity to take species of flora and fauna for commercial purposes illegally. This situation will degrade the quality of biodiversity in the ecotourism area. Due to that, some people believe that ecotourism activities can harm the environment.

Community-Based Ecotourism Management is defined by several scholars as a type of tourism that the local community has significant control over and involvement in its development and management, where a substantial portion of the benefits remain within the community. Ecotourism is an alternative livelihood project that generates income and employment and improves rural livelihoods in developing countries. Communities that practice good natural resources management should be rewarded with more secure access to resources and benefits that correspond to the quality of their management to develop socioeconomic indicators for natural resources management (IFAD, 2006).

This study focuses on the participation and contribution of the local community of Perkampungan Orang Asli Tanjung Sepat in managing ecotourism in Pantai Cunang and its impacts on the environment and indigenous community in Pantai Cunang. The Mah Meri community in Perkampungan Orang Asli Tanjung Sepat had inhibited in the Pantai Cunang area before the ecotourism in the area was known publicly. Thus, it is important to increase their participation in decision-making processes to conserve and preserve the environment and to maintain the sustainability of ecotourism.

## **BACKGROUND**

Ecotourism refers to a form of tourism which is suitable for environmental conservation efforts and environmental conditions, population culture and life in an area (Zainuddin, 1994). This definition means that ecotourism is developed based on natural resources and cultural products of the local community, and emphasis on the conservation of natural attractions such as wildlife sanctuaries, national parks, highlands and islands.

According to The International Tourism Society (TIES), ecotourism is a responsible travel trip to natural areas that conserves the environment, supports local people's well-being, and includes interpretation and education. The principles of ecotourism, according to TIES are:

- i. Reduce physical, social, behavioral and psychological impacts.
- ii. Increase the awareness of the environment and cultural aspects and respect it.
- iii. Ensure that both visitors and hosts have a positive experience.
- iv. Make direct financial benefits available for conservation.
- v. Create financial benefits for both the local community and private industry.

- vi. Visitors should have memorable interpretive experiences that help them become more sensitive to the political, environmental, and social climate.
- vii. Create, build, and operate low-impact facilities.
- viii. Recognize the rights and spiritual beliefs of indigenous people in your community and work with them to empower them.

Tourism development has significant impact on the economy, such as creating job opportunities and contributing to secured-income for the local community. However, tourism has also had negative consequences, such as pollution and community conflict. One way to manage the negative impacts of ecotourism is by increasing the involvement of local community in its operation and management as they know the area well.

Community-based management in ecotourism focused on managing the impacts of tourism on the community and environment, and not maximizing profits for investors. This approach can help the local community control the impacts of tourism, generate additional incomes, and diversify the local economy (Tuffin, 2005). There are many environmental benefits from community-based management in ecotourism, such as creating awareness and developing management skills in the community, encouraging environmental planning and managing the environmental problem that occurs.

Community-based management approach in tourism was introduced as a new tourism product in Malaysia during the 7<sup>th</sup> Malaysia Plan (1996-2000) (Bhuiyan, 2019), as a way to reduce the economic imbalance between the rural and urban areas. It was also mentioned, even earlier, in National Tourism Policy which was formulated in 1992. The policy emphasized rural enterprises, cultural exchanges, urban and rural integration acceleration, and encouragement for local communities' participation in conservation and tourism activities (Nabiha, 2010).

Zhang and Lei (2012) and Masud et al. (2017) had found that there is a correlation between environmental knowledge and environmental behavior; indicating that, actions to improve locals' environmental knowledge can help to encourage enthusiastic attitudes and behaviour towards sustainable ecotourism. Nzama (2008), stated that community involvement in tourism and related activities would benefit the community in social, economic, and physical ways – which indirectly, will raise their standard of living. Several factors which influence the participation of the local community in community-based ecotourism include environmental knowledge for sustainable development, motivation to be involved with community-based ecotourism management, the perceived economic impact of community-based ecotourism management, perceived social impact of community-based ecotourism management and perceived cultural impact of community-based ecotourism management (Masud et al., 2017).

Among the communities which is actively involved in ecotourism in Malaysia is the *orang asli* community. The *orang asli* community is a minority ethnic population and is the only native community in Peninsular Malaysia (Roddin et al., 2015). The Mah Meri is one of the eighteen tribes of an indigenous ethnic group in Peninsular Malaysia. The word 'Mah Meri' means 'people' and 'forest', originally known as the Besis. The Mah Meri is also classified under the Senoi subgroup. They are very known for their skills in woodcarving. However, their economic activity remains rooted in agriculture and fishing. The Mah Meri community has succeeded in maintaining a truly world-class spiritual wood carving tradition in terms of its crafts and artistry. The rich mythical art behind the images and symbols is passed down from generation to generation.

Mah Meri tribe believes that humans, plants, animals and even inanimate objects have spirits that interact with daily life. They believe the ancestral spirit curses plants and animals and becomes human food. But paradoxically, they also believe that illness and injuries are

caused by the offended spirit of killed plants and animals. Thus, natural disasters are the result of violating their moral norms. The socio-economic position of the majority of the indigenous community in Malaysia still lags behind in numerous fields compared to other races (Roddin et al., 2015). The indigenous community in Malaysia are well known for their culture and arts. It has become a tourist attraction, especially the engraving and weaving activities.

## **METHODOLOGY**

Pantai Cunang has been selected as the study area because the ecotourism in this area is fully owned and managed by the local Mah Meri community of Perkampungan Orang Asli Tanjung Sepat, Kuala Langat, Selangor. The beach is one of the most interesting places to visit in the Kuala Langat District because it offers a variety of amenities, including a display of handicrafts made by indigenous people.

Both qualitative and quantitative methodologies were adopted in this study, with questionnaire survey form being the main research instrument to gain quantitative data. The questionnaires were utilised to gather information on local community's perception of the impacts of adopting community-based management ecotourism on the environment and socio-economic aspects and to know about the community's personal opinion and feelings towards the community-based management and ecotourism in Pantai Cunang. The questionnaire was structured around the 5 point Likert scale. Likert scale was used to measure the level of agreement of the respondent to the statements provided in the questionnaire survey, where it ranges from 1 (strongly disagree) to 5 (strongly agree).

Yamane's sampling technique was adapted to determine the sample size – total number of population is 639, the degree of the expected error of 0.05, and a 95% confident interval. Convenience sampling was used during the distribution of the questionnaires. A total of 246 complete sets of questionnaires were distributed. The Statistical Package for Social Science (SPSS) software was utilised to process the numerical data.

On the other hand, qualitative data were gathered through semi-structured interviews conducted with the chairman of the committee organisation in Pantai Cunang (Puan S), and the the assistant officer of the town and village in the Department of Development Planning of Majlis Perbandaran Kuala Langat (MPKL) (Puan N). Data from these interviews were analysis by applying the thematic analysis method.

## **RESULTS AND DISCUSSIONS**

The first part of the questionnaire seeks to capture the demographic profile of the respondents, which is the gender, age, marital status, educational level, occupation and income per month as presented in Table 1.

Table1: Demographic and Socio-economic Profile of Respondents

Profile of Respondents					
Demographic Profile			Socio-economic		
Gender	Male	43%	Education Level	No Schooling	23%
	Female	57%		Primary School	23%
Age	20-30	23%	Main Occupation	Lower Sec. School	29%
	31-40	27%		Upper Sec. School	23%
	41-50	28%		College/Institute/University	2%
	51-60	14%		Students	4%
	61 and above	8%		Government Service	5%
				Private Sector	20%
Marital Status	Single	17%	Income Per Month (RM)	Tour Guide/Shop Owner	1%
	Married	63%		Retired/Unemployed	23%
	Divorce	9%		General Worker	29%
	Widow/Widower	11%		Others	18%
				0-500	33%
				501-1000	26%
		1001-1500	30%		
		1501-2000	9%		
		2001 and above	2%		
			Mean = RM850.12		
			Std. Deviation = RM611.27		

Table 1 shows the demographic profile of 246 respondents. The results reveal that 43% of the respondents are males and 57% are females. The age of respondents ranged between 20 to more than 60 years, with the majority (at 28%) lies in the 41 to 50 years old range. In terms of marital status, this study found that most of the respondents are married (63%). As for education level, the result show that most respondents (29%) have at least a Lower Secondary School education level. It also shows that 23% of the respondents had never received any formal education and only 2% of the respondents had undergone tertiary education level. This trend might be due to financial constraints as the indigenous community is known as one of the low-income communities in Malaysia. Regarding their main occupation, most respondents (29%) work as general workers such as cleaners, security guards, contractors, industrial workers and lorry drivers. The finding shows that the majority of the respondents (89%) receive an income lower than RM1500, which is the current minimum wage in Malaysia. The socio-economic position of the majority of the indigenous community in Malaysia still lags in numerous fields compared to other races (Roddin et al., 2015).

In the following part of the questionnaire, respondents were asked to provide a yes or no reply to four basic questions on ecotourism and community-based management. The findings are presented in Table 2. Based on the replies, it shows that the majority of respondents have good understanding of ecotourism (65%) and community-based management (63%). 83% of the respondents also agree that community plays an important role in ecotourism activity. However, in terms of the involvement of the local community in managing the ecotourism activity in Pantai Cunang, only 15% of the community are involved in managing the ecotourism activity. This observation might be due to the limited ecotourism activities in Pantai Cunang, which leads to limited job opportunities.

Table 2: Understanding of and Involvement in Community-based Management and Ecotourism Activity among Respondents

Respondents' Involvement and Understanding of Community-Based Management and Ecotourism	
Question	Reply
Do you know what ecotourism is?	Yes 65%
	No 35%
Do you know what community-based management is?	Yes 63%
	No 37%
Do you think community plays an important part in ecotourism activity	Yes 83%
	No 17%
Involvement in managing the ecotourism activity	Yes 15%
	No 85%

A deeper analysis had shown that the number of male respondents involved (8%) in managing the ecotourism activity in Pantai Cunang is greater than the number of females (7%) (Figure 1). In terms of age, most of the respondents involved in managing the ecotourism activity in Pantai Cunang are 20 to 30 years old (Figure 2). The local community involvement and contribution include becoming helpers, committee members, homestay providers, cleaning and decorating.

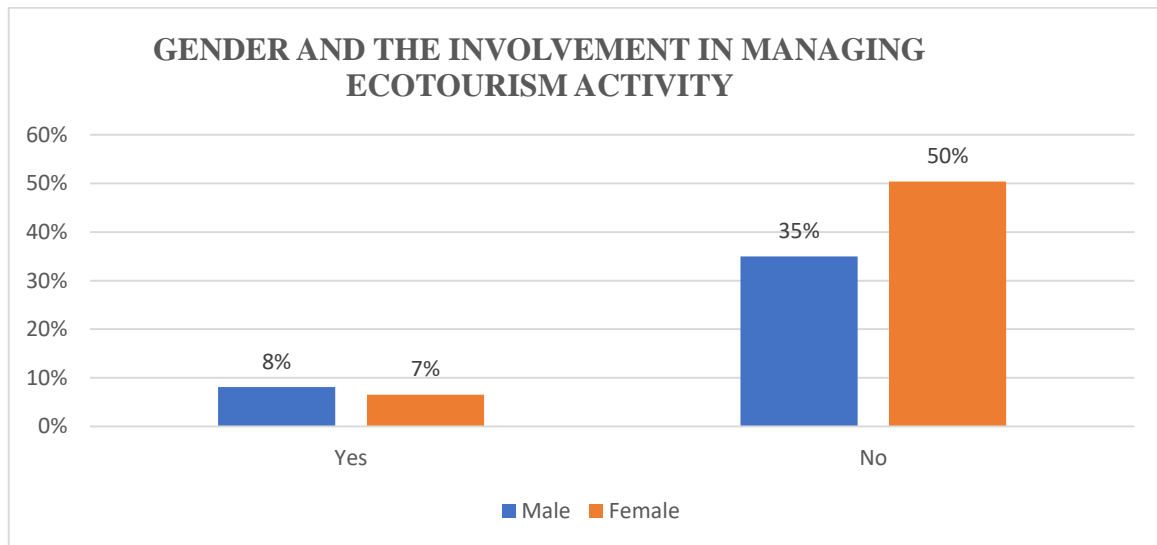


Figure 1: Gender of respondents and involvement in managing ecotourism activity in Pantai Cunang

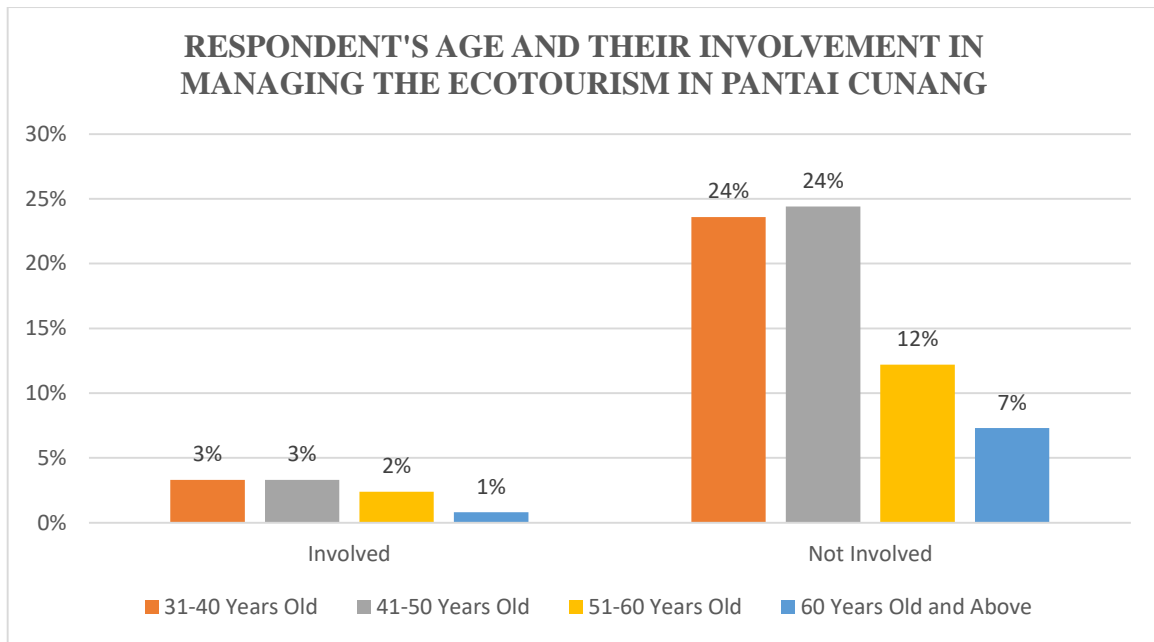


Figure 2: The respondent's age and involvement in managing ecotourism activity in Pantai Cunang

### The Roles of the Mah Meri Community in Ecotourism

To acquire deeper understanding of the involvement of the Mah Meri community in ecotourism activity in Pantai Cunang, in-depth interviews were conducted with Puan S, the Chairman of Pantai Cunang Committee Organization. Based on thematic analysis of the interview transcripts, it is found that the Mah Meri community in Perkampungan Orang Asli village had been volunteering to manage and conserve Pantai Cunang before it gets officially introduced by the local government in 2014. This is because the Mah Meri tribe is known as the ancient indigenous tribe in West Malaysia that reside along the coastal side for a living. Before the ecotourism activities in this area, the locals had taken care of and preserved the natural resources of the Pantai Cunang area for their own goods. The Mah Meri Community of Perkampungan Orang Asli Tanjung Sepat volunteered to work together by replanting Rhu trees in the Pantai Cunang area to preserve the coastline, flora, and fauna habitat of the area. The erosion of the coastal area has been a persistent and significant environmental problem in Pantai Cunang.

The ecotourism activity and development in Pantai Cunang are fully managed by the community of the Perkampungan Orang Asli. A local community organization was developed by the community in order to manage ecotourism in Pantai Cunang. The organization of committee consists of 15 individuals from the Perkampungan Orang Asli Tanjung Sepat community. The organization has 3 main positions: chairman, secretary, and treasurer, followed by other committee members in different aspects such as safety and creativity, cleanliness and cheerfulness, main counter, Cunang's craft, and beach lodges aspect (Figure 3).

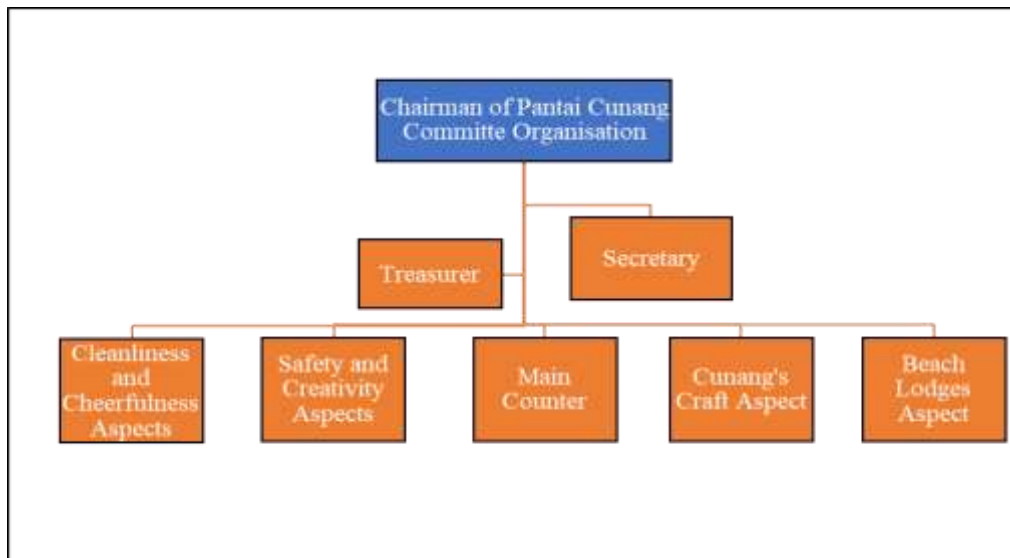


Figure 3: Pantai Cunang committee organisation chart

The committee members of Pantai Cunang were elected through election among the local community of Perkampungan Orang Asli Tanjung Sepat. All elected members must be experienced, responsible, honest and creative. According to Howe (1983), education and knowledge acquisition have long been themes guiding ecotourism. According to the chairman of the organisation, the local community has joined programs such as *Kursus Pelancongan Inap Desa* (Homestay Programme) conducted by the Institute of Rural Development (INFRA). The salaries of the Pantai Cunang committee members are released through profits earned from ecotourism activities in Pantai Cunang. Members received different amount of salary depending on the scope of duties of each member. However, organizational managers will receive a salary of 10 percent of the monthly income of ecotourism activities. There are also villagers who volunteer to work at Pantai Cunang to do cleaning work and to take care of the counter, which were paid on hourly rate. Even so, the results of the interview session with the chairman of the Pantai Cunang community organization stated that the youth are less interested in engaging in such activities.

The Pantai Cunang organization committee members are responsible for holding discussions with members and the village community to make all decisions on management and development in Pantai Cunang. Meetings with Pantai Cunang committee members are held every 3 months or more frequent if needs arise. All decisions related to the proposed development project carried out in Pantai Cunang will go through the consent of the community of Perkampungan Orang Asli Tanjung Sepat. This is in line with the concept of community-based management in an ecotourism activity where the local community has the power and right in decision-making.

The community are also in charge of the entrance fee for Pantai Cunang. The main attractions of ecotourism activities in Pantai Cunang are camping, picnic, chalet, cultural exploration and fishing. There are five chalets provided by the community with different prices. The visitors will also be charged for a picnic or camping spots. All the fees received from the ecotourism activity in Pantai Cunang will be used as a fund to develop and conserve the natural resources by maintaining the area's sustainability. The local committee organization also volunteer to do a clean-up daily at the beach. All the recyclable wastes generated, such as plastic bottles, were recycled, and some were used as decorations in the beach area. The local Mah Meri community showcase their creativity through various types of decorations. In addition, local residents also sell handicrafts woven by the residents themselves. With the sale



of these handicrafts, the weaving talent has been sharpened in the community, especially among the women. This matter has indirectly helped to enhance the women's empowerment of the Mah Meri community in the area. Such cases can also be seen through previous case study findings conducted by Ramos-García (2017) in Mexico.

The local committee organization has also provided a special fund for ecotourism activities in Pantai Cunang. All proceeds from Pantai Cunang activities and handicraft sales will be recorded by the treasurer of the organization. Income and profits information will be presented each time a meeting is held. The average monthly profit earned in Pantai Cunang is RM 2000, which is used to fund minor repairs and development in Pantai Cunang and to pay the committee members and volunteers.

Puan S also stated that the local community has been collaborating with the Kuala Langat Municipal Council (MPKL) to manage the ecotourism development in Pantai Cunang. The local municipal council is in charge of the development of Pantai Cunang. All of the future development and needs of the local community regarding the ecotourism activity in Pantai Cunang is handled by the Kuala Langat Municipal Council, with inputs from the village representatives (local committee organization members).

### **The Local Community Perception on Community-based Ecotourism Management in Pantai Cunang**

The next part of the questionnaire consists of 18 questions which were categorised into 4 parts; Part A consists of 5 questions on perception on community-based ecotourism management, Part B consists of 5 questions pertaining to perception on relations of community-based ecotourism management and the environment, Part C consists of 5 questions related to the perception of community-based ecotourism management and the socio-economic impact and finally Part D consists of 3 questions on the relationship between the community and the local government in community-based ecotourism management. The results of the data analysis are presented in Table 3.

Table 3: Perception on community-based ecotourism management in Pantai Cunang

Item	Statement	Strongly Disagree	Disagree	Partially Agree	Agree	Strongly Agree
		N (%)	N (%)	N (%)	N (%)	N (%)
A1	It is a 'bottom-up' management.	8 (3)	10 (4)	101 (41)	93 (38)	34 (14)
A2	Increase the chance of local community in decision making and development.	2 (1)	11 (5)	76 (31)	118 (48)	39 (16)
A3	Created conflicts between local and other stakeholders.	108 (44)	42 (17)	76 (31)	12 (5)	8 (3)
A4	Power overlap.	116 (47)	41 (17)	58 (24)	28 (11)	3 (1)
A5	All committees and members share profits from ecotourism.	102 (42)	44 (18)	41 (17)	53 (22)	6 (2)
B1	Community-based management leads to a sustainable development.	4 (2)	15 (6)	40 (16)	132 (54)	55 (22)
B2	Help to minimize the adverse environmental impacts of normal tourism.	2 (1)	17 (7)	72 (29)	107 (44)	48 (20)
B3	Helps to improve conservation of natural resources.	24 (10)	18 (7)	66 (27)	123 (50)	15 (6)
B4	Increase in waste production due to increasing number of tourists.	100 (41)	40 (16)	36 (15)	58 (24)	12 (5)
B5	The village is cleaner.	5 (2)	14 (6)	45 (18)	108 (44)	74 (30)
C1	Improve the cooperation and understanding between local and other stakeholders.	4 (2)	22 (9)	81 (33)	87 (35)	52 (21)
C2	It builds stronger ethnic group relationships.	4 (2)	18 (7)	36 (15)	133 (54)	55 (22)
C3	Provide business/career opportunity for the local community.	2 (1)	9 (4)	36 (15)	116 (47)	83 (34)

C4	Improves local community's skill in managing the ecotourism activity.	2 (1)	13 (5)	54 (22)	144 (59)	33 (13)
C5	Improve the development of infrastructure.	4 (2)	18 (7)	34 (14)	108 (44)	82 (33)
D1	My rights, needs and interests are taken into account by local government.	89 (36)	27 (11)	42 (17)	66 (27)	22 (9)
D2	I was informed in advance by local government before any development was carried out.	93 (38)	29 (12)	37 (15)	63 (26)	24 (10)
D3	The local government asked for my consent about the development in the ecotourism area.	71 (29)	46 (19)	44 (18)	65 (26)	20 (8)

This study has found that most respondents (52%) agree and strongly agree that the community-based management in Pantai Cunang is a type of 'bottom-up' management; which means that community involvement in ecotourism management is significant in Pantai Cunang (Question A1). This is in line with the principles of community-based management, where local communities play an important role in the development of ecotourism. According to Utama et al. (2021), the primary goal of community-based ecotourism is to encourage local communities to participate in ecotourism activities.

In Question A2, the majority of respondents (48%) agree that community-based management in Pantai Cunang has been successful in increasing the level of local participation in decision making process, and consequently allow local communities to control the tourism development in Pantai Cunang, as local community empowerment is strengthened. This, in turn, will help the local community to control the impacts of tourism (Tuffin, 2005), which leads to sustainable development.

While in Question A3, respondents disagree (61%) that community-based management of ecotourism in Pantai Cunang created any conflicts between local community and other stakeholders such as the local municipal council (Majlis Perbandaran Kuala Langat, MPKL).

Likewise, in Question A4, they also disagree (64%) that power overlapping problem exist in the community-based management of ecotourism in Pantai Cunang. This indicates that Pantai Cunang has a good and clear management outline between the community and the local municipal council.

To Question A5, on distribution of profits from ecotourism, most of the respondents do not agree with the statement that all committees and members share profits from ecotourism. This is because the distribution of income depends on their position in the management. This is different from the case study in Mexico conducted by Ramos-García (2017), where the community received equal economic benefits regardless of their management position; and thus contributing to improvement of their quality of life.

The next set of questions, labelled B1 to B5 intend to investigate respondents' perception on the relation of community-based ecotourism management and the environment. In Question B1, 76% of respondents agree that community-based ecotourism management leads to sustainable development.

In the same vein, they also agree that community-based ecotourism management helps to minimize adverse environmental impacts due to tourism activities (64%) (Question B2). Although ecotourism activities provide positive effects or benefits to human beings in terms of satisfaction, the activities also have an impact on the environment, albeit on a small scale and gradually. The negative consequences are determined by human awareness of the importance of caring for nature, whether through education, employment, or an individual's exposure to the matter. Masud et al. (2017) discovered that there is a correlation between environmental knowledge and environmental behaviour. The involvement and participation of local community in managing the ecotourism activities in the area has contributed towards minimizing the adverse environmental impacts of ecotourism. This can also be seen in other case studies conducted by other researchers; for example, in a study conducted by Sardiana (2015) in Indigenous Tenganan Dauh Tukad Village in Bali, where he found that community-based ecotourism has caused more positive impacts rather than negative impacts on the local people and its surrounding.

Ecotourism refers to exploring activities where undisturbed or polluted natural resources are the main focus (Fennel, 1999). Preserved and undisturbed natural areas will guarantee the best in experiencing or seeing the main attractions and features of nature (Ceballos-Lascurain, 1990). In Question B3, most of the respondents (56%) agreed that ecotourism in Pantai Cunang ensures the conservation of natural resources. This shows that ecotourism in Pantai Cunang has a positive impact on the natural resources in the area.

Pantai Cunang is an ecotourism site that is surrounded by mangrove forests. The community-based ecotourism at the site has ensured that the mangrove forest is being conserved and preserved to avoid the extinction of its natural characteristics. Based on the interview conducted with Puan S, the local community is very concerned about natural resources. This can also be related to their cultural beliefs, where Mah Meri's tribe believes that humans, plants, animals and even inanimate objects have spirits that interact with their daily life. Puan S mentioned that they believe an ancestor's spirit is looking after the coastal area (Pantai Cunang). Other than that, Pantai Cunang is also renowned as a site for local events such as replanting and regrowing mangrove trees by the local communities and schools. This type of event is a way to conserve the mangrove forest around the site area as erosion is a significant environmental problem in the area, as mentioned by Puan S, especially during monsoon season.

Pantai Cunang is an ecotourism area that still has its original state compared to other coastal areas in the Kuala Langat District, especially regarding natural resources and development. In an interview session with the chairman of the Pantai Cunang committee organization, pollution is not the main problem that affects the environment in the Pantai Cunang ecotourism area. Environmental problems such as coastal erosion due to natural phenomena often occur in this area. The local community has been working to prevent the problem of erosion from becoming more serious in the Pantai Cunang area. However, the problem is difficult to avoid by simply replanting the Rhu tree. This is due to weather factors in Malaysia. The unpredictable weather in Malaysia caused coastal areas such as Pantai Cunang to be very vulnerable, especially during the monsoon season. Pantai Cunang also tends to experience environmental problems such as floods during high tide and monsoon seasons, as happened in the year 2021. According to Ahmad et al. (2017), the coast's weather, climate, and

sea currents are no longer easy to predict. The reinforcement of suitable adaptation actions would benefit the community to face of weather changes.

The issue on waste production was asked in Question B4, to which 29% of the respondents do not agree to the statement that ecotourism has contributed to the rise of waste generation. It was found during site observation in the research area that different types of recycling bins are provided. The visitors are advised to follow the in-house rules provided by the local community where 'no waste is left behind' after any ecotourism activities. The rules stated that all waste or rubbish must be disposed of in the main rubbish bin provided, visitors are not allowed to smoke in the beach area, and they are prohibited from committing immorality. Visitors are also not allowed to bring motorcycles into the beach area, and all liquor and pets are not allowed to be brought go to the beach. Other than that, the local community also decorates the ecotourism site using recyclable wastes (e.g. water bottles, sandals and so on) found in the area during clean-up. This indirectly leads to lesser waste production. This is similar to a case study in El Verde Comacho, Mexico conducted by Ramos-García (2017), where community-based ecotourism has led to a cleaner village.

This brings to Question B5, where respondents are required to state their perception on the level of cleanliness of the village. 74% of the respondents responded that community-based ecotourism management has managed to upkeep the cleanliness of their village. The village and its surroundings are kept clean because the community in Perkampungan Orang Asli Tanjung Sepat practices recycling and conservative activity such as '*gotong-royong*'. According to the interview with the chairman of the committee organization of Pantai Cunang, most community members volunteer to conduct clean-up activity every day. This ensures that the beach maintains its cleanliness and prevents adverse impacts, especially on the environment.

The state or cleanliness of the surrounding area will have an impact on the health of the local community. The surrounding area of the ecotourism site can also be an image of one such area. As a result, it is important to keep the area clean, particularly the ecotourism area, which receives visits from both foreign and domestic tourists. There are various reasons for this matter that the researcher found during the on-site observation and interview season with the Chairman of Pantai Cunang Committee Organization.

Next, is the analysis of Questions C1 to C5 pertaining to the association of community-based ecotourism management with the socio-economic elements. Human activities that are carried out in any area will have an impact on the socioeconomic aspects of the area. This is because economic activities such as ecotourism and recreation will contribute to the socioeconomic development of the specific ecotourism site sector and also to the socioeconomic of the country. The situation is the same in Pantai Cunang, where ecotourism has impacted the socio-economic aspects of the Perkampungan Orang Asli Tanjung Sepat village. In this situation, most impacts are positive in nature, especially on the socioeconomic aspects of the community in the village. This, however, contradicts to the findings of Liu et al. (2014) where they found tourism industry has a negative impact on the environment and local people in their study area.

Question C1 requires respondents to state their perception on whether community-based ecotourism management have improved the cooperation and understanding between local and other stakeholders. Majority of the respondents agree (56% agree and strongly agree) that community-based ecotourism management have managed to improve the cooperation between stakeholders. Likewise, it has also managed to build stronger relationships among ethnic groups, as agreed by 77% of the respondents.

Apart from that, community-based ecotourism management also benefits the local community by creating job opportunities and raising economic standards. In Question C3, 81% of respondents agree to the statement. Most respondents agreed that ecotourism activity in Pantai Cunang has resulted in increased business and a variety of job opportunities for the local community. Sirivongs & Tsuchiya (2012) stated that the more benefits the communities have received, the more favourable their perception of tourism is. Not only that, community-based ecotourism management has improved the local community's skill in managing ecotourism activities the area as agreed by 72% of the respondents.

The local community has been managing the ecotourism in Pantai Cunang long before it became renowned. The Mah Meri community in Pantai Cunang has independently managed and formed a committee organization to manage the ecotourism in Pantai Cunang. The organization committee has always encouraged the community of Perkampungan Orang Asli Tanjung Sepat to volunteer by participating in ecotourism. This explains that the local Mah Meri community dominates all the jobs where no foreign workers or outsiders are working in the site area. Job opportunities in different aspects such as cleanliness and safety were provided. Community-based ecotourism in Pantai Cunang has led to full empowerment by the local community in all activities or sectors of employment.

Besides that, some of the local community is also involved in fishing and agricultural activity as their main income. Ecotourism in Pantai Cunang has given the local community option to gain secondary income. Ecotourism brings lasting economic gains to the local community (Schenyvens, 2002). The increase in business and career opportunities has also improved the local's livelihood and increased in cost of living. According to Weaver (2006), ecotourism is tourism that includes local and indigenous communities in its planning, development, and operation and contributes to their well-being. This is evidenced by the findings of the analysis in this chapter.

Based on the analysis of Question C5, this study found that the respondents agreed that there is an improvement in the development of infrastructure due to ecotourism. The mangrove walkway and public toilet were provided by the local municipal for the community and visitors in the area. Other than that, other facilities such as huts and chalets were also provided by the local community. However, the development of infrastructure in Pantai Cunang is very limited. The research findings found that the development is limited due to local cultural beliefs and values. According to the interview session with Puan N, no permanent structure is allowed in Pantai Cunang. This is because they would like to maintain the authenticity criterion of the beach as well as practice sustainability in ecotourism.

Questions D1 to D3 specify on understanding the relations between the local community members and the local authority, as the other most dominant stakeholders in ecotourism in Pantai Cunang. It is interesting to note that in replying to Question D1, respondents had split perceptions, where 36% strongly disagree, while 27% agree to the statement that their rights, needs and interests are taken into account by the local government. that they were informed in advance by the local government prior to any development. While, for Question D2, most respondents (51%) also did not agree that they are informed in advance by the local government before any development is carried out. This might be because most of the respondents and community are not directly involved in managing the ecotourism in Pantai Cunang, and the development in the area is mainly through their representative, the committee organisation. The same sentiment follows in the next question. In Question D3, 48% of the respondents disagree that the local government asked for their consent regarding development in the area.

## CONCLUSION

Ecotourism activity in Pantai Cunang is fully owned by the Mah Meri community of Perkampungan Orang Asli Tanjung Sepat. It is found that the only stakeholder involved in the partnership with the local community in the management of ecotourism in Pantai Cunang is the Majlis Perbandaran Kuala Langat (MPKL). This indicates a very limited partnership and budget for ecotourism management in Pantai Cunang. However, the Mah Meri community of Perkampungan Orang Asli Tanjung has a very positive attitude in terms of commitment to the environmental management and ecotourism of Pantai Cunang. Therefore, ecotourism activities in this area do not have a significant negative impact on the environmental aspects of Pantai Cunang. However, the main environmental problems are coastal erosion and flood due to weather factors in Malaysia. Regarding to socio-economic aspects, employment opportunities in Pantai Cunang are very limited. Pantai Cunang also lacks popularity and publicity about the beauty of the beach compared to other beaches in Kuala Langat.

In conclusion, the ecotourism activities carried out in Pantai Cunang had significant impacts to the environmental and socioeconomic aspects of local Mah Meri communities in Pantai Cunang, Tanjung Sepat. Even so, ecotourism activities on the beach have many positive impacts compared to negative ones. The community in Perkampungan Orang Asli Tanjung Sepat plays a major role in maintaining and conserving the sustainability of the natural resources in Pantai Cunang. This study also found that the knowledge of community-based management and its impact can be influenced by a few variables regarding an individual's demographic and socioeconomic background and general opinion on the aspects such as income, education level, acceptance towards visitors and their opinion regarding the ecotourism activity and its benefits. The local community needs to be highly aware of the development of ecotourism activity in the area, and thus, the authority should put more effort to increase effective participation among the Mah Meri community in decision making process of any development. This is to avoid exploiting power or natural resources in the study area. Knowing their rights and belief as a Mah Meri community with an important role in managing ecotourism in Pantai Cunang will help improve the local community's participation in managing ecotourism.

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