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Place attachment of the ecotourism in Sicanang Mangrove

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Abstract. Ecotourism is not only as a tourist activity nowadays, but has become an activity that contains economic elements, as well as efforts to conserve natural resources and the environment. In regional development, ecotourism focuses on the quality of physical components, but the emotion of place attachments are not adequately considered. To find out the emotional of place attachments on ecotourism, this research was conducted in the mangrove ecotourism area with data collection techniques, namely field observations which were then supported by the distribution of questioners to the community (50) and tourists (50). The results of this study are perceptions between tourists and the local community about emotional of place attachments to the Sicanang Mangrove Forest Ecotourism.

1. Introduction

Mangrove forests are forests that grow in brackish water, and are affected by tides. This forest grows especially in places where there are paralysis and accumulation of organic matter. The Mangrove forest is one of the mainstays of tourist attractions in Indonesia, including the city of Medan, especially in the Sicanang Belawan area. With the extensive condition of mangrove forests in North Sumatra, which is $\pm 200,000$ Ha, the potential and opportunity of the mangrove forest ecotourism object are very large. In addition to improve the economic life of the local community, the existing mangrove forest that is based on ecotourism also has a very effective function to protect marine ecosystems. The area of mangrove forests in North Sumatra Province has decreased very rapidly from time to time. From an area of $\pm 200,000$ Ha in 1987, there was only 15% or $\pm 31,885$ Ha which functioned well in 2001. In the Sicanang Belawan area, the area of mangrove forest was 1550 Ha, but in 2018 it decreased to 450 Ha caused by the residential area of 1050 Ha. This shows that the condition of the North Sumatra Province mangrove forest is under tremendous pressure by various types of activities which result in the loss of most of the mangrove forest area. In regional development, ecotourism focuses on the quality of physical components.

Place Attachment is a form of connection between a person and a place. In the ecotourism area, the sense of place, place dependence and place identity are also used as the construction for measurement, this follows the idea that place attachment is influenced by the emotional aspects of ecotourism's environmental experience. This is also associated with the symbolic importance of an ecotourism area as a store of emotions and relationships that provide meaning and purpose and reflect ownership [7].

This has led to an increase in a promotion that encourages people to behave positively towards nature and wants to visit ecotourism areas that are still natural in order to increase awareness, appreciation, and



concern for nature. Seeing the situation and conditions in the Sicanang mangrove forest ecotourism area, researchers wanted to identify the place attachment in the ecotourism area based on the perceptions of tourists and local communities.

2. Literature Review

2.1 Place Attachment

Place attachment is defined as the development of affective ties or relationships between people or individuals and certain places that are expressed through interactions and emotional attachment [1]. Forms of emotional attachment to a place can provide actual values based on reactions received by individuals to the quality of the place by expressing happy and disappointment feelings [3][6]. Thus, place attachment can be considered as a variable that can be used to measure the sense of place based on people's feelings and emotional reactions to the attributes and characteristics of places in the city which are an important part of evaluating urban design quality. Emotional attachment tied people to a certain place and the development of individual interactions that result in a feeling of place attachment.

Emotional attachment helps humans to respond to a place in the form of a feeling such as anger, sadness, happiness, etc. [8]. Stronger feelings are felt in the form of a stronger sense of dissatisfaction with the emergence of problems that affect the place [7]. The feelings that individuals have are strongly related to the role of the place in developing a sense of "ownership" and "territoriality" that reflects self-identity and groups. Based on the reviews above, it is found that the forming aspect of place attachment is emotional attachment and interaction, but the limitation of this research only examines the aspects of emotional attachment (Fig.1).

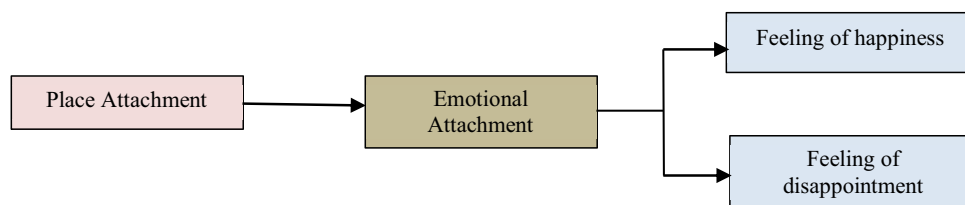


Figure 1. Place Attachment Aspects.

2.2 Ecotourism

Responsible nature tourism activities in the region by paying attention to the elements of education, understanding, and support for efforts to conserve natural resources, as well as increasing the income of local communities is one form of ecotourism activities as a tourism product [10]. Ecotourism is often positioned as a responsible nature tourism trip by conserving the environment and improving the welfare of local communities with significant growth in tourism travel, which is around 20% of total international travel [9][11]. Ecotourism is now one of the choices in promoting a unique environment that is maintained by its authenticity as well as being a tourist visit area with the concept of community-based environmental development with a maintenance and nature conservation approach. Ecotourism is also known as a type of business that is economically and environmentally sustainable for people living in and around conservation areas. Based on the review above, it is found that the forming aspect of ecotourism is nature conservation and economy (Fig.2).

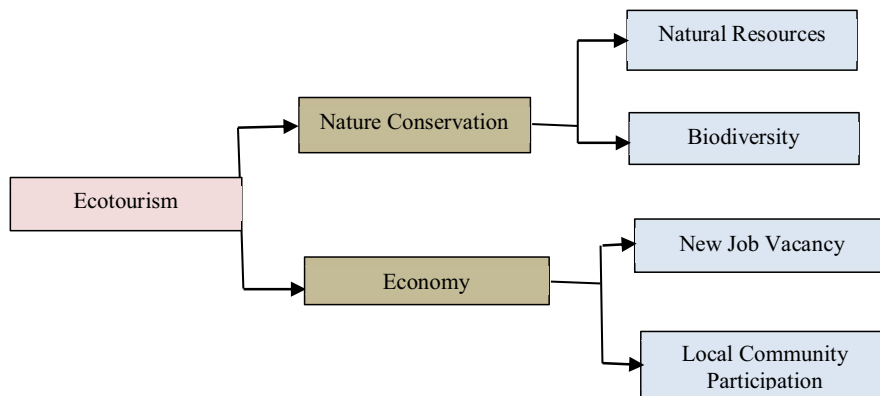


Figure 2. Ecotourism Aspects.

The principle of conservation on ecotourism is that ecotourism activities carried out do not cause damage and pollution of the environment and local culture [12][13]. One way to implement this principle is by using local resources that are energy efficient and managed by the surrounding community and contributing to biodiversity conservation must minimize negative impacts on the natural environment and culture and remind tourists that it is important for nature conservation.

The good ecotourism can improve the economy of local communities by increasing employment and encouraging local communities to become entrepreneurs, creating a market for local products [9]. Communities living in ecotourism areas can maximize economic benefits by emphasizing business opportunities that depend on the participation of local communities and mixing with the natural and cultural environment. Ecotourism also opens up economic opportunities for the community even more so if tourism trips are carried out using local resources such as transportation, accommodation and guide services.

3. Method

The type of research used is descriptive research to answer the question of how tourists and local people perceive the mangrove ecotourism area in Sicanang. In identifying the study of place attachments in the ecotourism area mixed methods are used where qualitative and quantitative approaches are combined. This approach has been applied in research with similar topics, namely Place Attachment and Continuity of Urban Place Identity [1] and Tourists perception toward public open space's physical elements (case study : Cermin beach) [5] which are related to individual perceptions of tourist area. Based on the mixed method, this research will be factually reviewed through the results of interviews and linking it with the results of questionnaires which are then confirmed by the results of field observations to produce a place attachment level in the ecotourism area of mangrove forests in Sicanang.

Interviews were conducted on informants with criteria: the chairman of the Sicanang Mangrove Forest Ecotourism management area, local communities around the area, tourists, and tourism experts. The distribution of questionnaires was carried out on 100 respondents consisting of 50 local people and 50 tourists who came to the study site. The statement in the questionnaire was taken using the frequency method and the Likert scale from one to five to measure the perceptions of tourists and local people towards the study of place attachments in the ecotourism area which was compiled based on the theoretical studies that had been made in the previous chapter. It's important to note that before submitting a statement, the researcher first asks questions about the profile of the respondent [1]. Observations were made to collect physical data on mangrove ecotourism areas. The results of the observations can be in the form of photographs and observations of researchers on the condition of the ecotourism area. The result of the ecotourism area of the mangrove forest, Sicanang based on the place attachment theory that focused on the emotional attachment which was then crossed with the theory of ecotourism to obtain research data (Fig.3).

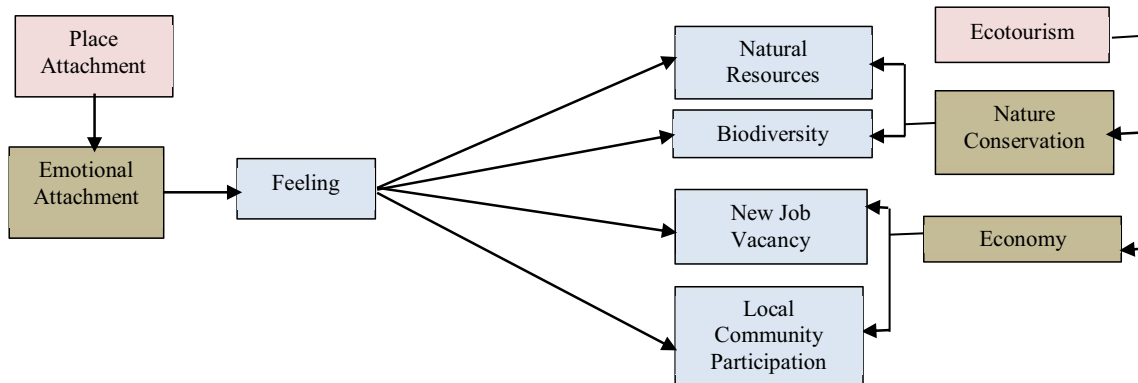


Figure 3. Data Analysis Method.

4. Results and discussions

4.1 Study of Emotional Attachment on Nature Conservation

Study of Emotional Attachment to Natural Resources

Natural Resources in the ecotourism area of Sicanang mangrove forest consist of biotic natural resources; such as various types of mangrove plants and other plants, various types of fish and shrimp in the river, as well as abiotic natural resources; such as water flowing around the river (Fig. 4). Excessive use of natural resources, especially in the study area is caused by population growth and the built area that make sthe mangrove forest rapidly becomes depleted adding to a decrease in the environmental quality. Human must conserve natural resources to be used in the present and the future. The local communities in the study site strives to maintain the continuity of the use of natural resources to produce great results through cooperation with mangrove security agency in the 187 hectares of protected areas (DPM).



Figure 4. Natural Resources Ecotourism Mangrove, Sicanang.

Table 1. Emotional Attachment of Local People and Tourists about Natural Resources

Statements	Mean	
	Local People	Tourists
There is a feeling of happiness when looking at this natural resource on the Ecotourism of the Sicanang Mangrove Forest	3,86	4,18
The feeling of disappointment when seeing the natural resources is not used properly	3,92	4,18

The form of emotional attachment to a place can provide actual values based on reactions received by individuals to the quality of places by expressing feelings [4], the perceptions of local people and tourists on the natural resources in the study area based on the questionnaires result have the same rating between tourists (4.18) and the community (3.86). They tend to have happy feeling towards natural resources in the ecotourism area, but the community (3.92) and tourists (4,18) have disappointment when the types of natural resources are not used properly (Table 1). This was also confirmed by the results of the following interview: *"We also supervise this area, there are special officers who handle it so that people who are not responsible for taking natural resources around the area have not dared to take it carelessly. In the past 1 person could bring 2 canoes from the stolen goods, even we had caught 6-8 canoes"* (informant: Chair of the mangrove ecotourism area manager, Sicanang).

Study of Emotional Attachment on Biodiversity. Biodiversity is important in life. Biodiversity acts as an indicator of the ecological system and a means of knowing species changes. Mangrove ecosystems as nature reserves and wildlife reserves function primarily as protectors and conservationists of biodiversity. Conservation areas are one of the ways taken by the government to protect biodiversity and its ecosystem from extinction. Therefore the existence of these biodiversity functions is very important, so in study area consists of almost 21 species of mangroves that grow around the area and are still well cared for (Fig. 5,6,7,8).

Table 2. Emotional Attachment of Local People and Tourists about Biodiversity

Statements	Mean	
	Local People	Tourists
The feeling of disappointment when seeing the type of biodiversity is not used properly	3,88	4,44

The feelings that individuals have are strongly related to the role of the place in developing a sense of "ownership" and "territoriality" that reflects self-identity and groups [2]. In mangrove ecotourism, we can see a sense of ownership of tourists and local communities with their perceptions of biodiversity, where tourists (4.44) and local communities (3.88) agree that they have feelings of disappointment when biodiversity is not used properly (Table 2). Because this type of mangrove has many benefits to everyone so that the mangrove forest in the ecotourism area is still maintained by the community. This was also confirmed by the results of the interview as follows: *"Mangrove forests are a lot of advantages, first of all, the mangroves are plants, so if these mangroves are not here we have flooded every tidal seawater"* (informant: local people).



Figure 5. Type of black fires.



Figure 6. Type of red mangrove.



Figure 7. Types of white fires.



Figure 8. Mangrove seeds.

4.2 Study of Emotional Attachment on Economy

Study of Emotional Attachment on New Job Vacancy. Before the presence of ecotourism in the mangrove forest area in this Sicanang village, the economy in this region was very weak, the local community only relied their income from the results that could be obtained from the river flowing around the area. In the mangrove ecotourism area, a local community can be directly involved as a group of mangrove managers and can open their own businesses such as restaurants, food stalls selling children's food, stalls selling household needs, even selling snacks such as fried foods around the ecotourism area (Fig. 7)

Table 3. Emotional Attachment of Local People and Tourists about New Job Vacancy

Statements	Mean	
	Local People	Tourist
There is a feeling of disappointment about the job vacancies provided on the Sicanang Mangrove Forest Ecotourism	3,0	3,32

Stronger feelings are felt towards the emergence of problems that affect the place [1]. Tourist perceptions towards the creation of job vacancies provided from ecotourism in the area are feelings of disappointment (3.32) and happiness (3.32) with the same value, in contrast with the perception of the local community that is dominated by feelings of disappointment (3.0) toward job vacancies. It means that many local people in the area have not yet felt the existence of new job openings yet (Table 3).



Figure 9. Types of Shop in Ecotourism Mangrove, Sicanang.

Study of Emotional Attachment to Local Community Participation. In the mangrove ecotourism area, the community participates in the management of the ecotourism area with the groups being created, such as the batik group, recycling group, and learning group that process food from the mangrove plant. Participation in this area is not forced, the people voluntarily join these activities. This was confirmed by the results of the interview as follows: *"The participation of the local community in this area is good, with the presence of groups of worship every evening here it is very helpful.* (informant: chairman of the management of the mangrove ecotourism area, Sicanang).

Table 4. Emotional Attachment of Local People and Tourists about Local Community Participation

Statements	Mean	
	Local People	Tourists
There is a happy feeling towards the participation of the local community in the Sicanang Mangrove Ecotourism	3,34	3,32

Emotional bonds help humans to respond to a place in the form of a feeling such as anger, sadness, happiness, etc [9]. The feeling that tourists have (4.32) and the local community (3.34) on local community participation is happy. It can be concluded that the response of tourists and local communities to local community participation is satisfying. (Table 4).

5. Conclusions

Based on the perceptions of local people and tourists regarding the study of place attachments at the study site, researchers concluded that the level of emotional attachment assessment in nature and economic conservation was different. The level of emotional attachment assessment in nature conservation is higher compared to the economy. Local people and tourists have a level of feeling happy about nature conservation in Sicanang mangrove forests, but it is more obvious in travelers rather than the local community. In contrast to the economy of study area, local communities and tourists tend to feel disappointed. The limitation of the study is that researchers only examined emotional attachments, therefore, further study will examine the interactions of place attachments.

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