Visitors Perceptions of Environmental Conditions in the Siring Tendean Tourism Area in Banjarmasin City

Romadhini Putri Wulandari[1], Emmy Sri Mahreda[2], Emmy Lilimantik[3], Yusanto Nugroho[4]

[1] Master of Natural Resources and Environmental Management, Lambung Mangkurat University, Banjarbaru, South Kalimantan 70714, Indonesia
[2,3] Faculty of Fisheries and Marine Sciences, Mangkurat University, Banjarbaru, South Kalimantan 70714, Indonesia
[4] Faculty of Forestry, Lambung, Mangkurat University, Banjarbaru, South Kalimantan 70714, Indonesia

Corresponding Author: Romadhini Putri Wulandari

ABSTRACT

This research analyzes environmental conditions in the Siring Tendean Tourism Area based on visitor perceptions. Siring Tendean, one of the popular tourist destinations in Banjarmasin City, needs help maintaining ecological quality due to the increasing number of visitors. Using qualitative methods and data collection techniques through surveys and literature studies, this research involved 97 randomly selected respondents. The research results show that visitors' perceptions of tree sustainability and air cleanliness are classified as good, while perceptions regarding the availability of clean water and waste management are in the medium category. Hopefully, these findings can become a reference for managers and local governments in formulating more effective and sustainable environmental management policies in the Siring Tendean Tourism Area.

Keywords: environmental conditions, perceptions, visitors, Siring Tendean

INTRODUCTION

Banjarmasin has its charm as a city with many tourist attractions ranging from natural to culinary, heritage, and cultural tourism. The city of Banjarmasin has its tourist attractions because it has the nickname of a thousand rivers, judging from the potential that the banks of the rivers in Banjarmasin City can be used as tourist attractions. This is one of the reasons why Banjarmasin is always busy with tourists, especially if you visit at the weekend.

This needs to be a concern because the rapid and uncontrolled expansion of tourism can result in the formation of mass tourism, which has the potential to have a significant impact on the area (Rindrasih et al., 2019). The Siring Tendean Tourist Area is now a tourist area that is busy with visitors. The cool climate, because it is located on the banks of the Martapura River, is a unique attraction, so visiting tourists will feel comfortable relaxing. However, the large number of visitors and the rapid development of tourism facilities in the Siring Tendean Tourism Area can lead to a decline in the quality of the living environment.

In recent years, attention to environmental conditions in this tourist area has increased. This is caused by the increasing number of visitors, which impacts environmental quality. Environmental issues in the Siring Tendean Tourism Area include tree preservation, clean water availability, air cleanliness, and waste handling.

On the one hand, tourism is a sector that supports employment and income for the region (I. K. Sumantra et al., 2018; K. Sumantra, 2017) as well as being a source of the population's economy (Raju et al., 2019; Ruzic & Sutic, 2014), but on the other hand it causes environmental damage (Ghobadi & Verdian, 2016; Raju et al., 2019) which is very dangerous if not controlled. Differences in views like this certainly give rise to many public perceptions, especially tourists who want to enjoy the beauty of Banjarmasin City in the Siring Tendean Tourism Area.

Etymologically, the meaning of perception comes from English, namely perception, or in Latin, namely perception, taken from the word percipare, which means to receive or take (Sobur, 2016). Sobur also said that perception in the narrow sense is vision, namely how someone sees something. Meanwhile, in a broad sense, perception is a view or understanding, namely how someone views or interprets something. Regarding tourism, perceptions of geographic appearance or shape in mind are formed by tourists' knowledge or expectations and help tourists experience a tourist destination efficiently (Aktas et al., 2019).

Visitors' perceptions of environmental conditions in the Siring Tendean Tourism Area are a critical aspect that needs to be considered. This perception can provide an overview of visitor satisfaction with cleanliness, comfort, and environmental sustainability at Siring Tendean. Apart from that, this perception can also be an essential indicator for improving and better management for tourist area managers.

The aim of writing this research is to analyze environmental conditions based on visitors' perceptions in the Siring Tendean Tourism Area, Banjarmasin City. By understanding visitor perceptions, accurate data and information can be obtained to support efforts to preserve the environment and improve the area's tourism quality. Apart from that, the results of this research can also be input for local governments and related parties in formulating more effective environmental management policies in the Siring Tendean Tourism Area.

Through this research, it is hoped to reveal the extent of visitor satisfaction with environmental conditions in Siring Tendean and what are the determining factors for this perception. In this way, tourist area managers and local governments can take appropriate steps to maintain and improve environmental quality in the Siring Tendean Tourism Area to continue to be an attractive and sustainable tourist destination.

MATERIALS & METHODS
Time and Place of Research

The research was conducted in Banjarmasin City, South Kalimantan Province. The time required for this research is approximately two months, from May to June. This research was conducted in Siring Tendean. The research location was chosen deliberately (purposive sampling), considering the area is a tourist area.

Method of collecting data

This research uses qualitative methods with data collection techniques through surveys/direct observations and literature studies. Questionnaires were distributed to visitors who had visited the Siring Tendean Tourism Area, Banjarmasin City, using the Probability Sampling technique, where this technique provides equal opportunities. The questionnaire data collection method uses simple random sampling where the author distributes digital questionnaires randomly to many WhatsApp groups.

Sample Determination Method

The number of samples used in this research was determined using the Slovin formula. According to Aloysius Rangga Aditya Narendra et al. (2021:27-28), the Slovin formula is a formula for calculating the minimum sample size if the behavior of a population is not known with certainty. The error rate value determines the research sample size using the Slovin formula. The

greater the error rate used, the smaller the samples taken. The following is Slovin's formula:

$$n = \frac{N}{1 + N(e)^2}$$

Information
n: Sample size
N: Population Size
e: Percent allowance for inaccuracy due to sampling errors that can still be tolerated or desired

Based on data, the number of visitors to Siring Tendean from January to November 2023 will be 1,298,710 people. So the number of visitors per day is 3,908 people. In this study, the total population used was 3,908 people, where the entire population was representative, which the researchers considered to represent visitors' perceptions of environmental conditions in one day with an error rate of 1%, so the calculation was as follows:

$$n = \frac{3908}{1 + 3908\,(0,1)^2}$$

$$n = \frac{3908}{1 + 3908\,(0,01)}$$

$$n = \frac{3908}{1 + 39,08}$$

$$n = \frac{3908}{40,08} = 97,5 = 97 \; people$$

Based on the calculations above, the number of samples determined was 97 people. The number of respondents represents the ability to obtain written data that reflects the population situation.

Data analysis
Analysis of data regarding visitors' perceptions of environmental conditions in the Siring Tendean Tourism Area obtained from interviews was processed through:

1. One score one indicator, namely one score for one question. The score criteria for answering the questions that will be presented in the form of a questionnaire are as follows:

Table 1. Description Score

Score	Description Score
1	Very bad
2	Bad
3	Currently
4	Good
5	Very good

2. Tabulation is the classification of data in tabular form that aims to simplify the analysis process.

3. The Likert scale is an indicator variable that measures a person's perceptions, opinions, and attitudes (Sugiyono, 2014). The Likert scale calculation formula uses five alternative answers, namely:

$$NL = \sum (n1x1) + (n2x2)$$
$$+ (n3x3) + (n4x4)$$
$$+ (n5x5)$$

Information:
NL = Likert scale scoring value
n = total score answers (Likert score alternatives 1 to 5).
Next, the calculation is to find the average of each aspect of the question using the formula:

Q = NL/97

Information:

Q = average of each aspect of the question
NL = Likert scale scoring value.
97 = number of sample respondents.

4. Cumulative value, namely the calculation of the overall perception value.

The final value formula for each aspect is:

$$NA = \frac{Q1 + Q2 + Q3 + Q4 + Q5}{Skala\ Likert}$$

Information:
NA = final value
Q = Average of each aspect of the question (Likert uses a scale of 5).

Then, the overall perception value (NA) is obtained and analyzed based on Table 2.

Table 2. Perception Classification

Score	Perception Classification
1 ≤ NA ≤ 1,4	Very bad
1,5 ≤ NA ≤ 2,4	Bad
2,5 ≤ NA ≤ 3,4	Currently
3,5 ≤ NA ≤ 4,4	Good
4,5 ≤ NA ≤ 5,4	Very good

Analysis of visitor perception data and suggestions uses descriptive analysis, namely presenting data systematically, factually, and accurately regarding facts and the meaning of phenomena in the field (Sugiyono, 2007).

RESULT
TREE SUSTAINABILITY

Table 3. Results of visitor perceptions of tree sustainability

Key Point	Tree Sustainability					NL	Q	NA
	Very Bad	Bad	Currently	Good	Very good			
	1	2	3	4	5			
Condition of the trees	1	8	30	43	15	354	3,6	3,8
trees can muffle the noise	1	13	41	30	12	330	3,4	
trees can clean the air	1	2	25	43	26	382	3,9	
The trees provide coolness when you are there	0	5	15	40	37	400	4,1	
The trees beautify the view	1	6	18	50	22	377	3,9	

Based on the analysis of visitors' perceptions of the Siring Tendean Tourism Area. Table 3 shows that the visitor's perception of tree sustainability is 3.8 and is in the good category. To maintain or improve perceptions, things that can be done are increasing visitors' information about tree conservation activities, maintaining environmental education, mentoring, and ongoing evaluation. Continuing to increase transparency, interaction, and care for trees and the environment will help maintain positive perceptions of visitors towards the preservation of trees in the Siring Tendean Tourism Area.

AVAILABILITY OF CLEAN WATER

Table 4. Results of visitor perceptions of water cleanliness

Key Point	Availability of Clean Water					NL	Q	NA
	Very Bad	Bad	Currently	Good	Very good			
	1	2	3	4	5			
clean water conditions in the toilet	2	16	40	33	6	316	3,3	3,2
availability of clean water in the toilet	2	7	51	30	7	324	3,3	
clean water conditions in the sink	3	18	38	35	3	308	3,2	
availability of clean water in the sink	2	16	41	34	4	313	3,2	
condition of sanitation facilities (toilets and sinks)	1	17	48	27	4	307	3,2	

Based on the analysis of visitors' perceptions of the Siring Tendean Tourism Area. Table 4 shows that the visitor's perception of the availability of clean water is 3.2, so it is in the currently category. To maintain or improve perceptions, things that can be done are improving infrastructure, providing information, air management education, monitoring and evaluation, feedback, and continuous improvement. By taking these steps, visitors' perceptions and experiences regarding the availability of clean water can be improved.

AIR CLEANLINESS

Table 5. Results of visitor perceptions of air cleanliness

Key Point	Kebersihan Udara					NL	Q	NA
	Very Bad	Bad	Currently	Good	Very good			
	1	2	3	4	5			
air cleanliness conditions	0	4	46	33	14	348	3,6	3,6
air color conditions	0	2	42	42	11	353	3,6	
air odor conditions	1	10	44	31	11	332	3,4	
air freshness conditions	1	7	38	37	14	347	3,6	
the condition of the air when inhaled	0	6	40	34	17	353	3,6	

Based on the analysis of visitors' perceptions of the Siring Tendean Tourism Area. Table 5 show perception of air cleanliness is 3.6 and is in the good category. Things that can be done to maintain or improve perception include routine maintenance, odor control, education and information, monitoring air quality, and improving facilities. Implementing these suggestions can help preserve or increase visitors' positive perceptions of air cleanliness in the Siring Tendean Tourism Area.

WASTE HANDLING

Table 6. Results of visitor perceptions of waste handling

Key Point	Waste Handling					NL	Q	NA
	Very Bad	Bad	Currently	Good	Very good			
	1	2	3	4	5			
trash condition	9	35	38	11	4	257	2,6	
number of trash cans	8	36	36	13	4	260	2,7	
Waste handling	4	30	42	17	4	278	2,9	
visitors have handled waste independently	20	30	30	13	4	242	2,5	2,8
Waste handling carried out by cleaning staff	0	12	43	30	12	333	3,4	

Based on the analysis of visitors' perceptions of the Siring Tendean Tourism Area. Table 6 shows that the visitor's perception of waste handling is 2.8 and is the currently category. Things can be done to maintain or improve perceptions, including education and awareness, providing infrastructure, waste management, community involvement, monitoring and evaluation, and collaborating with other parties. By implementing these steps, visitors' perceptions of waste handling can be improved from moderate to better.

CONCLUSION

This research examines visitors' perceptions of environmental conditions in the Siring Tendean Tourism Area in Banjarmasin City. Using qualitative methods with a survey of 97 respondents, the results showed that tree preservation and air cleanliness were considered good, while the availability of clean water and waste handling were in the medium category. This perception shows the need to improve clean water and waste management. These findings can help local

managers and governments formulate more effective environmental management policies to maintain and improve the quality of tourism in Siring Tendean.

REFERENCES
1. Aktas, S., Yayla, Ö., & Ekincek, S. (2019). Cultural landscapes of aviation park in terms of visitors' viewpoint: case of Eskisehir Aviation Park. Tourism, Leisure and Global Change, 5, 535–541.
2. Aloysius Rangga Aditya Nalendra, d. (2021). Statistika Seri Dasar Dengan SPPS. Media Sains Indonesia.
3. Ghobadi, G. ., & Verdian, M. . (2016). The Environmental Effects of Tourism Development in Noushahr. Journal of Ecology, 529–536.
4. Raju, M. ., Udayashankar, N., & Seshadri, S. (2019). easuring Tourism Carrying Capacity: A Multi-Dimensional Framework for Assessment. In Environmental Impacts of Tourism in Developing Nations (pp. 42–67). IGI Global.
5. Sugiyono. (2007). Quantitative Qualitative Research Methods And R&D. Bandung: Afabeta.
6. Sugiyono. (2014). Educational Research Methods Quantitative, Qualitative and R&D Approaches. Bandung: Alfabeta.
7. Sumantra, I. K., Agung, A. P., Sudiana, A., & Dera. (2018). evelopment Strategy of Kutuh Village-Badung Coastal Area as a Tourist Object. Australian Journal of Basic and Applied Sciences, 12, 34–37.

******