

THE IMPACT OF ENVIRONMENTAL CARRYING CAPACITY ON THE WELFARE OF THE SIPAKARIO BEACH COMMUNITY EAST KALIMANTAN**A Rinto Dwiatmojo^{*1}
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ABSTRACT

The community who lived around Sipakario Beach, Nipah-Nipah Village were affected by the tourism development in the area. This research examined if the environmental carrying capacity including the natural and socio-physical environment affected the welfare of the community living around Sipakario Beach, Nipah-Nipah Village, Penajam District, North Penajam Paser Regency which area was developed for tourism purposes. In this research, 100 local people participated as samples. The validity of the research instrument was tested using the product moment correlation test, while the reliability was measured using the Cronbach's alpha formula. The data of this research were analyzed in multiple regression analysis. The results showed that community welfare was affected by the environmental carrying capacity which includes natural physical environment and the socio-physical environment.

Keywords:

Community Welfare, Environmental Carrying Capacity

INTRODUCTION

Community welfare is the most fundamental goals of the national development of Indonesia. The success of a nation's development is reflected in community welfare. Hence, efforts to improve the community welfare always adjusts to economic, political, and social issues going on. Experts will always refer to these issues in making decisions [1]. Indonesia has made various efforts to improve the tourism sector through effective and efficient management of the environmental carrying capacity which are executed by relevant actors to support the community welfare and prosperity [2]. Human's needs include physical needs covering physiological needs for adequate rest, health and growth, and spiritual needs which are quite relative depending on personal traits. [3]

Sipakario is a beach with clean waters and white sand. Sipakario Beach has been the main tourist attraction in North Penajam Paser Regency that is always crowded with visitors on holidays or weekends. Sipakario Beach offers a charming natural view. Sipakario Beach is the home of various species of stunning marine life as it is clean from trash and its coral reefs are well preserved. However, the increasing number of visitors does not go in line with the welfare of the community living in Nipah-Nipah Village. To address this problem, regional officials of North Penajam Paser Regency have mandated village officials to implement community empowerment program to utilize natural and physical environmental resources as well as social resources effectively and efficiently around the beach. Proper management of environmental carrying capacity brings positive effects on the welfare of the surrounding community [4].

As explained by [5, 6], environmental carrying capacity refers to the capability or ability of an ecosystem to supports all organism in it while at the same time maintaining its productivity, adaptability and self-regeneration capability. There are two types of environmental carrying capacity, namely, the social physical environment and the natural physical environment [7] According to [8], community welfare significantly contributes to the economic development of a region to a country through tourism, as tourism opens up employment opportunities, increase the foreign exchange, and improve the regional development [9].

METHODOLOGY

This research was performed in the form of an associative research[10]. According to[11], research sample is the representative of specific characteristics of certain population. Analyzing the samples is equal to analyzing the entire population. In this research, 100 local community members were selected using proportional random sampling technique regarding the fact that the population of this research were heterogeneous with proportional strata. The effectiveness of the intervention performed in this research was measured based on the gap between pre and posttests. The collected data were analyzed in SPSS version 21 software using descriptive analysis and t-test. All items in the questionnaire were measured in a five-point Likert Scale, ranging from score 1 that expressed strong disagreement to score 5 that expressed strong agreement. After that, the data were then analyzed in multiple regression analysis.

RESEARCH RESULTS**Respondents' Demographic Profile**

Table 1 describes respondents' demographic profile. The respondents consisted of 53% male respondents and 47% female respondents. Respondents' average age is greater than 31 years, consisting of 37% respondents aged between 21 to 30 years and 21.0% for respondents aged between 15 to 20 years. old namely 42.0%, followed by ages 21 to 30 years at 37.0% and 15 to 20 years at 21.0%. 17.0% of respondents are civil servants. As much as 26.0% of them are entrepreneurs, 27% are students, and 36.0% are unemployed. Based on the education background, most respondents have graduated from high school (36.0%), followed by 16.0% with diploma degree, 23.0% bachelor's degree, and 25.0% of them did not graduate from elementary schools

Table 1. Respondents' Demographic Profile

No	Variables	Frequency	Percentage (%)
1	Age		
	15-20 Years old	21	21
	21-30 Years old	37	37
	31 Years old and above	42	42
2	Sex		
	Male	53	53
	Female	47	47
3	Education		
	High School	36	36
	Diploma	16	16
	Undergraduate Program	23	23
	Drop out	25	25
4	Occupation		
	Civil Servant	17	17
	Businessmen	26	26
	Students	27	27
	Unemployed	36	36

Description of Research Variables

Table 2 shows the analysis of respondents' responses to items regarding the natural physical environment at Sipakario Beach, North Penajam Paser Regency. Of the 100 respondents, 8 persons (8%) disagreed, 36 persons (36%) fairly disagreed, 40 persons (40%) agreed, and 16 persons (16%) strongly agreed with the natural physical environment at Sipakario Beach, Penajam Paser Regency. While on the socio-physical environment at Sipakario Beach, 4 persons (4%) showed strong disagreement, 42 persons (42%) disagreed, 45 individuals' persons (45%) agreed, and 9 persons (9%) strongly agreed. Regarding issues on community welfare, 10 persons (10%) strongly disagreed, 33 persons (33%) disagreed, 48 persons (48%) agreed, and 9 persons (9%) strongly agreed.

Table 2. Descriptive analysis of research variables.

No	Variables	Frequency	Percentage (%)
1	Natural Physical Environment		
	Strongly Disagree	8	8
	Disagree	36	36
	Agree	40	40
	Strongly Agree	16	16
2	Socio-Physical Environment		
	Strongly Disagree	4	4
	Disagree	42	42
	Agree	45	45
	Strongly Agree	9	9
3	Community welfare		
	Strongly Disagree	10	10
	Disagree	33	33
	Agree	48	48
	Strongly Agree	9	9

DISCUSSIONS

Environmental carrying capacity affects the welfare of the local community around Sipakario Beach, North Penajam Paser Regency. It drives greater number of visitors. Environmental carrying capacity in a tourist destination can be in the form of accommodation, restaurants, travel business, souvenir/craft industry, transportation, and restaurants. In addition, it can be in the forms of life, culture, nature and other things attributed to the surrounding community with unique characteristics as tourist attractions. The natural physical environment is known to affect the community welfare. Natural physical environment includes natural wealth with different natural resources which bring different effects on every human being and visitors. Good environmental management helps improve one's welfare through proper control, monitoring, recovering, maintenance, development, utilization and structuring of the environment. The term environmental carrying capacity refers to the environmental capability in supporting the lives of human and other creatures in it.

The second factor that affects the community welfare is the socio-physical environment. Socio-physical environment is the environment of the population in a certain predetermined group where interactions occur. The social environment greatly influences human's behavior. Adequate understanding and knowledge about the management of the environment will also affects the how local community and visitors interact to each other. Sipakario Beach is a tourist attraction that is well-managed with friendly community and unique local culture, making it a favorite tourist attraction in North Penajam Paser Regency.

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CONCLUSION

This research examined how natural physical environment and the social physical environment affect the welfare of the surrounding community in Sipakario Beach, Nipah-Nipah Village, Penajam Paser Utara Regency. The results showed that the welfare of the surrounding community is influenced by the environmental carrying capacity in the forms of natural physical environment and the social physical environment by 69.5%, while the remaining 30.5% is being influenced by other factors that were not included in this research which might include pricing and the quality of services or goods being offered.

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