

Community Perceptions of Natural Resource-Based Tourism Development in Ngoro-Oro Village

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ABSTRACT

Gunungkidul Regency in the Special Region of Yogyakarta currently has an impressive development in terms of tourism. Part of the Gunungkidul area is also part of a geopark designated by UNESCO, which has become a tourist destination. However, the management of geosites as tourist destinations has not been prioritized as aspects of the geosite as a geological heritage full of earth scientific knowledge. The village of Ngoro-oro, as a buffer area for the ancient Nglanggeran volcano, has enormous potential to develop geo-based tourism. Through surveys and in-depth interviews, this article measures the community's perception of the development of natural resource-based tourism, especially geology. The measurement of perception parameters is seen from knowledge, such as the concept of special interest tourism, ecotourism, geotourism, natural resource potential, sociocultural potential, attractions, and stakeholders involvements, along with the aspect of awareness. The aspect of awareness is seen through the benefits felt by the community, negative impacts, and factors that influence tourism development in Ngoro-oro. Based on the survey results, it was known that 35% of respondents understood the concepts of special interest tourism and ecotourism, while 30% of respondents understood the concept of geotourism, and 65% of respondents were able to identify the potential of natural resource-based and sociocultural tourism in the area. There were 52% of respondents also understand the attractions that can be developed to support tourism. The stakeholders who play a role in tourism development in this area were identified as 6, namely Tourism Awareness Groups, Village Owned Enterprises (BUMDES), Jurug Gedhe Tourism Services Cooperative, youth group (Karangtaruna), Village Government, and the community. Based on the awareness aspect, only 39% stated that tourism activities benefited the community, and 13% stated that tourism activities had a negative impact.

Keywords: Ancient volcano; Community perception; Covid 19; Geosite; Rock.

1 Introduction

Gunungkidul Regency is one of the areas in the Special Region of Yogyakarta that is developing aggressively in tourism. Part of the Gunungkidul area is also part of a geopark that UNESCO has designated. Almost all these priority geosites have become tourist destinations. However, the management of geosites as tourist destinations has not prioritized aspects of the geosite as a geological heritage full of earth scientific knowledge. The village of Ngoro-oro, as a buffer area for the ancient Nglanggeran volcano, has enormous potential to develop geo-based tourism. There are many cold lava rocks from ancient volcanoes in this village. The rock layer structure is discernible in this village on batik hill, which was deliberately cut to construct a road connecting Gunungkidul Regency and Klaten Regency, Central Java. It is fascinating to study the source rock's influence and the vegetation's suitability on the landscape in Menara Valley. The gurgling waterfall is one of the charms of this area, with various attraction activities, such as river crossing



and canyoning. Along the river, several types of rocks are fascinating to study. As mentioned before, the village of Ngoro-oro has the potential to be developed as a geo-based tourism area.

Geological Tourism or Geotourism focuses on developing the attractiveness of geological and geomorphic landscapes, remnants of ancient life, minerals, volcanoes, glaciers, earthquakes, deserts, beaches, islands, volcanoes, glaciers, earthquakes, deserts, beaches, islands, islands, caves, lakes, rivers, springs, ornamental stones, and gemstones. This scientific tourism activity is practiced to increase public awareness about earth science [1]. The geotourism component involves visits to geosites for recreational purposes, increasing curiosity, appreciation, and education. In connection with this visit, tours, special activities, and the development of accommodation facilities are required. In addition, various forms of planning and management of existing geosites are needed so that geotourism becomes a different type of tourism from natural or cultural tourism in general [2]. The first scope is the form representing the existing landscape, features, and materials. Geotourism landscapes include mountains, rift valleys, large steep slopes, volcanoes, karst landscapes, and arid environments. There may be landscapes with specific characteristics or a series of landscapes within this landscape. For example, certain mountains may have glacial and fluvial geomorphic features. In addition, geotourism features can be in the form of rock outcrops, rock types, sediments, soils, and crystals [2].

The second scope is the process. The process is the scope of geotourism related to the dynamic movement of the earth. Processes involve geological and geomorphological activities, including volcanic eruptions, flowing water, and weathered sediments, which are released and transferred from one site (eroded and transported) to another (deposited). This phenomenon can be appreciated if the activity is observed and interpreted [2]. The third scope, namely tourism related to human activities (tourists) who visit geosites, can be group tours by bus, boat, tourist flights, individual tours by private vehicles, or hiking. Sites selected and developed for geotourism should, as much as possible, have accommodation facilities and accompanying infrastructure. Services designed to enhance the visitor experience include built access roads to destinations, visitor centers, tour guides, and virtual tours [2]. Thus, this article then measures the community's perception of the development of natural resource-based tourism, especially geology. Understanding the community perception is essential to measure the manager's commitment to developing the tourism area.

2 Research Methodology

This study was conducted in Ngoro-Oro village, Patuk Sub District, Gunungkidul District, Yogyakarta Special Province. This village is one of the areas in Gunungkidul with geology-based tourism potential. The location is 10.2 kilometers north of the Nglanggeran Ancient Volcano Geosite. Ngoro-oro Village is 7 km from the sub-district capital and 27 km from the district capital. The area of this village is 753.79 hectares, with a predominance of dry agricultural land. The methods used are surveys and in-depth interviews with people involved in tourism development in the Ngoro-oro Village. A survey using a questionnaire was done to measure the community's perception. The questionnaire in this study is semi-structured and divided into 3 aspects, i.e., the identity of respondents, knowledge, and awareness. The measurement of perception parameters is seen from the aspect of knowledge and awareness. The knowledge aspect includes the concept of special interest tourism, ecotourism, geo-tourism, natural resource potential, sociocultural potential, attractions, and stakeholders involved in tourism management and their respective roles. The aspect of awareness is seen through the benefits felt by the community, negative impacts, and factors that influence tourism development in Ngoro-oro. A total of 23 informants are community members directly involved in tourism development in Ngoro-oro. The in-depth interview was conducted with the committee of the tourism area in Ngoro-oro village. Descriptive statistics conducted data analysis.

3 Theory and Calculation

Perception of the community is essential to measure the commitment and attitude of the community to manage tourism-based community areas. Much research has funded these conditions. Our understanding of the world is influenced by our surroundings through a complex network of mental answers learned and maintained by a combination of cultural (cultural code, beliefs, languages, religion, values) and individual variables (emotion, self-esteem, personal experiences, theoretical knowledge, intuition, prejudice). The connection between these components dictates how we internalize every circumstance. Understanding the perception of the local community and using them as a starting point to improve the park–people relationship could help park management staff to involve more effectively in local communities and improve their awareness about biodiversity conservation within the park [3]. Community attitudes are crucial for successful and sustainable tourism development. Understanding the community’s attitudes and perceptions and how these perceptions are formed regarding tourism development would be valuable knowledge for decision-makers. Therefore by identifying the attitudes of local populations, programs can be set up to minimize friction between tourists and residents [4]. Our perception influences our attitudes, partly formed by communities' and individuals' perceptions and experiences. Many factors influence the perceptions of the management of tourism areas. Knowing the interest in understanding the factors which support local people’s positive perception of tourism-based community areas within them in developing a management plan, it is crucial to develop strategies to achieve this goal. Understanding all these factors is essential to improve the relationship between residents and protected areas and will improve people’s awareness of biodiversity conservation within these areas [3].

4 Results and Discussion

4.1 The Respondents’ Profile

Respondents of this study consisted of 52% male and 48% female. The age range of the respondents is 11-75 years, with most of them having senior high school education, as much as 52% junior high school 27%, elementary school 17%, and 4% diploma graduates.

Table 1: *Profile of Respondents*

Profile	Number	Percentage (%)
Gender:		
Man	12	52
Woman	11	48
Education:		
Elementary	4	17
Junior School	6	27
Senior School	12	52
Diploma	1	4
Occupation:		
Farmer	11	48
Entrepreneur	6	26
Labour	6	26

4.2 The Perception of the Community

The measurement of perception parameters is seen from the aspect of knowledge and awareness. Eleven questions identified the aspects of knowledge, six identified the awareness aspect, and the rest identified the community's constraints and hopes for developing tourism in Ngoro-oro village (Table 2).

Table 2: Summary of the central questions of the questionnaire and some answers

	Answers
Age, gender, education, occupation	21-75 years old; male/female; elementary/junior school/senior high school/diploma
Knowledge: Do you know the concept of special tourism Do you know the concept of ecotourism Do you know the concept of geotourism Do you know the potential of natural resources for tourism What is the potential of natural resources for tourism Do you know the potential of sociocultural tourism What is the potential of sociocultural tourism Do you know the potential of attraction for tourism What is the potential attraction for tourism Do you know another potential for tourism What is the stakeholder involved in tourism	Yes/no Yes/no Yes/no Yes/no Waterfall, panorama, valley, paddy field, rocks, community forest Yes/no <i>Jathilan</i> (traditional dancing), <i>karawitan</i> (traditional music) Yes/no <i>Jathilan</i> (traditional dancing), <i>karawitan</i> (traditional music) SMEs, culinary and agriculture activities, BUMDES, <i>Pokdarwis</i> , tourism cooperatives, local government, youth group
Awareness: Does tourism give benefits? What is the benefit of tourism? Does tourism have a negative impact? What is the negative impact of tourism? What factors influence tourism?	Yes/no Increase income, increase knowledge, job opportunity Yes/no Garbage Government, human capital, infrastructure, regulation, natural capital, financial capital, location, and community awareness.
Constraint: What is the constraint to developing tourism?	Low knowledge of tourism, low awareness of community, low support from the government, governance of tourism management
Hope: What is your hope for tourism development?	Improve knowledge, facilities, and tourism can increase the livelihood of the community

Based on the survey results that are shown in Table 3 below, it is known that 35% of respondents have understood the concepts of special interest tourism and ecotourism, 30% of respondents have understood the concept of geo-tourism, and 65% of respondents have been able to identify the potential of natural resource-based and sociocultural tourism in the area. A total of 52% of respondents also understand the attractions that can be developed to support tourism.

Table 3: The Knowledge of the Community

Knowledge	Number	Percentage (%)
Knowledge of:		
Special interest tourism	8	35
Ecotourism	8	35
Geo-tourism	7	30
The potency for tourism:		
Natural resources	15	65
Socio-cultural	15	65
Attractions	12	52

The potency of natural resources for tourism in Ngoro-oro village is Waterfall, panorama, valley, paddy field, rocks, and community forest. At the same time, the socio-cultural potency that supports tourism development in Ngoro-oro village is *Jathilan* (traditional dancing) and *karawitan* (traditional music). They also function as attractions of tourism in this village. The stakeholders who play a role in tourism development in this area were identified as many as 6, namely Tourism Awareness Groups, Village Owned Enterprises (BUMDES), Jurug Gedhe Tourism Services Cooperative, youth group (Karangtaruna), Village Government, and the community.

Based on the awareness aspect, only 39% stated that tourism activities benefited the community, and 13% stated that tourism activities had a negative impact. The benefit of tourism for the Ngoro-oro community is increased income, knowledge, and job opportunities. In contrast, the negative impact of tourism in this village is poor garbage management. Generally, tourism in Ngoro-oro village has been beneficial for the community. Still, tourism development in this village depends on several factors, such as support from the local government, human capital, infrastructure, regulation, natural capital, financial capital, location, and community awareness. The community has identified the constraint to developing tourism, i.e., insufficient knowledge of tourism, low awareness of the community, and little support from the government and governance of tourism management. But the community in Ngoro-oro village hopes that tourism in their village can improve knowledge and facilities tourism can increase the community's livelihood.

5 Conclusions

The knowledge aspect includes the concept of special interest tourism, ecotourism, geotourism, natural resource potential, sociocultural potential, attractions, and stakeholders involved in tourism management and their respective roles. The aspect of awareness is seen through the benefits felt by the community, negative impacts, and factors that influence tourism development in Ngoro-oro. Based on the survey results, it is known that 35% of respondents have understood the concepts of special interest tourism and ecotourism, 30% of respondents have understood the concept of geotourism, and 65% of respondents have been able to identify the potential of natural resource-based and sociocultural tourism in the area. A total of 52% of respondents also understand the attractions that can be developed to support tourism. The stakeholders who play a role in tourism development in this area were identified as many as 6, namely Tourism Awareness Groups, Village Owned Enterprises (BUMDES), Jurug Gedhe Tourism Services Cooperative, youth group (Karangtaruna), Village Government, and the community. Based on the awareness aspect, only 39% stated that tourism activities benefited the community, and 13% stated that tourism activities had a negative impact. Understanding the community's perception is essential to measure

the commitment of the tourism-based community manager to manage the tourism area. It is a starting point to improve and develop the geo-tourism-based community.

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