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Developing tourism facilities based on geotourism in Silalahi Village, Geopark Toba Caldera

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Abstract. Toba Caldera is one of the biggest lakes in Indonesia with supervolcano geology phenomenon, and its result amazing natural resources. It makes Toba Lake become the number one tourism in North Sumatera. However, tourism in Toba Lake is still needed development. Geotourism is one of the concept that suitable for this case. It is because geotourism is a new development tourism concept that focuses on the natural and geological phenomenon. Silalahi Village is one of the areas in Toba Caldera that still needs development, especially in tourism facilities sector. This research aims to investigation the facilities concept based on geotourism in Silalahi Village that would be analyzed by three element of tourism facilities namely, accommodation, support facilities and tourism auxiliary facilities. The method used for this research is mixed methods by distributing 100 questionnaires, observations directly to the area and interviews with three informants related parties interested in tourism, such as local people, government, and academics. The data would be processed and analyzed with techniques of exploration. The result shows that the three elements of tourism facilities are still lacking and needs to improve to increase the economy and tourism in the area.

Keywords: geotourism, tourism facilities, silalahi village

1. Introduction

The tourism industry is a composition of government and private organizations involved in the development, production, and marketing of a service product to meet the needs of tourists. Tourism continues to grow as the quality of life and income increase, where travel is a basic human need [1]. The emergence of a new concept in tourism (Geotourism) becomes an important thing done as a pillar of sustainable development, sustainability of natural resources and culture aimed at local communities to provide optimal benefits for them. So to support the achievement of development, it is necessary to develop products that have a relationship in the field of tourism. This is the development of tourism facilities. Tourist facilities is a support service that can be utilized by offering tourists the quality and price by the needs of tourists [2].

The geophysical uniqueness of the caldera formation of this lake Toba can bring appreciation geotourism for anyone who wants to visit the region of Lake Toba, especially Silalahi village. The uniqueness of the place that the potential causes geotourism require facilities that are different from other places. However, until now, the availability of natural potential of Silalahi village has not been utilized optimally through the provision of tourism facilities. The role of geo-tourism will create local benefits for the participation of communities involved in providing tourism facilities. So the purpose of this research is to recommend the planning of geotourism-based tourist facilities in Silalahi tourist area.



2. Tourism Facilities and Geotourism

Currently, a new concept emerged in the development of a tourist destination called geotourism. Geotourism is a natural diversity that focuses on the landscape to promote the site Geology and learning through environmental conservation [3]. In addition, the management at geotourism area can also provide optimal benefits for the community [4]. So geo-tourism development must meet several requirements, namely geologically based, Sustainable, educative, community participation, and tourist satisfaction [5]. This study uses five elements that have been disease namely, geologically based, Educative, community participation, tourist satisfaction, and planning. (Table 1).

Table 1. Elements of geotourism.

Geotourism	Indicators
Geological	Geological Condition of the physical area, geographical character
Educative	Educative Educational information media
Community participation	Community participation Local economic benefits
Satisfaction of tourists	Satisfaction of tourists Impression when after travel
Planning	Planning Potential goals, immigration workers

Geotourism criteria are dominated by tourism destination components to create new concepts

In the realm of tourism. One element in developing tourist destinations is the facility tours. Visitor satisfaction is not only based on the attractions they see but from tourism facilities owned by these attractions [6]. The tourist facilities are Support services that are always ready to be utilized by the tourists and the service Offering quality and price to suit the needs of travelers [2].

Grouping of tourism facilities is divided into three namely: first, accommodation, that is everything Which is provided to meet the needs of a person where tourists can rest, Stay, shower, eat and drink, and enjoy the services of tourist services such as entertainment facilities Provided [7], [8], [9], [10]. Second, Supporting facilities such as facilities that are proportioned as a complement to the main facility so that tourists will feel more comfortable [7],[8],[10]. Thirdly, the tourism auxiliary facilities that are as a main complement so that tourists are met His needs during visiting tourist attractions [7], [10]. Based on theoretical analysis, in determining the tourism facilities using the three elements that have been cited, i.e., accommodation, supporting facilities and tourism auxiliary facilities (Table 2).

Table 2. Elements of tourist facilities

Facilities	Indicator
Accommodation	Hotel / lodging, eating places, entertainment facilities
Support facilities	Parking, toilets, hygiene and safety facilities, places of worship, shelters, souvenir shops
Tourism auxiliary facilities	Visitor service, information center, sign board

3. Research Methods

The method used in this research is a mixed method. Qualitative method is done by direct observation, interview to 5 stakeholders that is, guide tourism, local communities, academics, geologists, and tourism experts. While the method quantitatively is done by spreading questionnaires to 50 tourists and 50 people residents. The data obtained is then processed and analyzed by statistical

approach descriptive, ie methods related to the collection and presentation of data. Results of data analysis will be the research findings on the concept of geotourism-based tourist facilities.

The concept of geotourism that is now being used as a vehicle for the development of tourism, defines that the main principle of geotourism focuses on geological stories to shape the character of a region. Therefore, Silalahi village which is in the geoarea of Haranggaol selected as a research locus because the process of formation has a character and uniqueness producing evidence of geological history in the geosite of Tongging-Silalahi and Silalahi-Renun. Location The research was located in Silalahi Village, Silahisabungan sub-district, Dairi regency, North Sumatra (Figure 1).

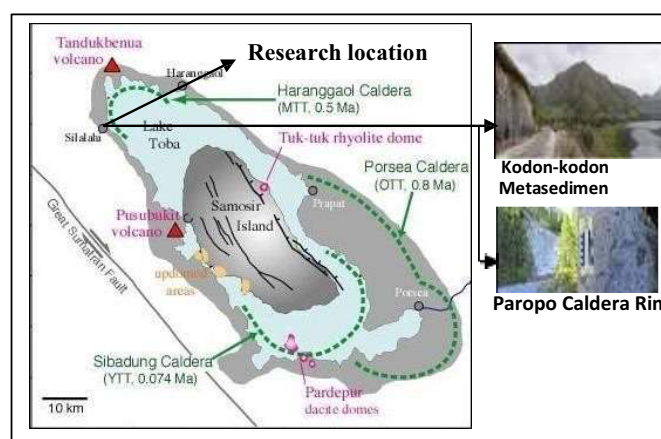


Figure 1. Research location of Silalahi village.

4. Results and Conclusions

4.1. Accommodation

Accommodation is a component of the tourist industry because the accommodation can be a place rest and enjoy the services and entertainment available. Development of services and service encourages the principle of geotourism to engage communities developing that strategy creative and innovative [11]. These efforts put people forward to give benefits directly in the provision of tourism facilities. The accommodation statement is summarized in Table 3.

Table 3. Statement of accommodation.

Accommodation	Mean (locals)	Mean (tourists)	Average
A. Easily find lodging places	3,52	3,10	3,31
B. Easily find places to eat muslim / non muslim	1,82	1,74	1,78
C. The existence of calender of event (event of culture) which held every schedule determined	3,72	2,62	3,17
D. Participate in maintaining and not damaging the beauty and authenticity of the area	3,60	3,72	3,66
E. The presence of interesting and educational media of interpretation, such as the museum of history	2,20	2,42	2,31

F. Visible participation of local communities who can maintain and care for the region	3,46	3,10	3,28
G. Special impression felt by tourists after visiting the tourist sites	3,48	3,50	3,49

1 = Strongly disagree, 5 = strongly agree

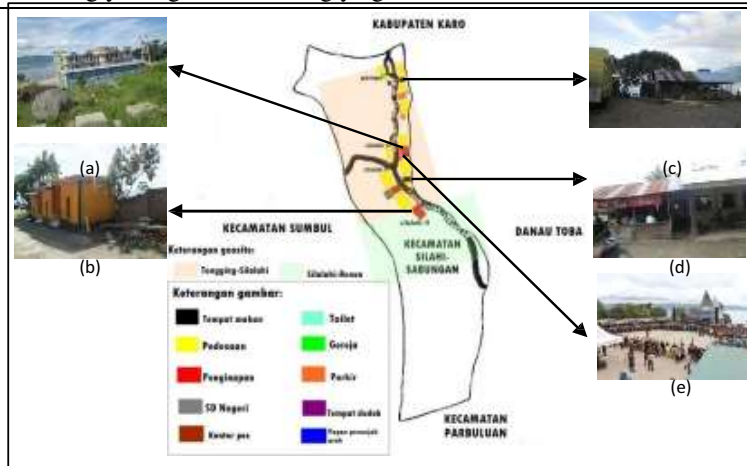


Figure 2. Map of accommodation facility (a) Hotel Silalahi (b) Resort Silalahi (c), (d) Food stall (e) entertainment facility.

The hotel/inn is one type of accommodation that uses part or all to provide public, commercially and individually-administered services and meets the requirements in government decisions. Percentage of respondents with an average score (3.31) agreed in the village of Silalahi easy to find place lodging.

Also the provision of dining facilities is a commercial venture that scope of activities providing dishes and drinks for the needs of tourists at a tourist spot [12]. The average score (1.78) received a disagreeable response in finding a place to eat. Since most places to eat are dominated by the food stalls simple underclass. When compared with the existing facilities in Bali, Lakeview Restaurant Is a restaurant located in the tourist area of Mount Batur, Bali. Restaurants in the tourist area Mount Batur had a strategic location, at the edge of the mountain caldera and served with scenery The stunning mountain and lake Batur (Figure 3).



Figure 3. Lakeview Restaurant, Kintamani, Batur, Bali.

The phenomenon in each region will improve the character of the local environment and culture [13]. Average percentage value (3.72) stated different opinions. When viewed from his profile, (3.72: local residents) agree with the event culture in the village of Silalahi. This matter reinforced by the opinion of the tour guide in the tourist area Tugu Silalahi:

"In Silalahi is always held cultural events conducted every one year Once, exactly in mid-November

2017. Marga Silalahi will Come to Silalahi to hold the event in honor of the ancestors and Introduced the descendants of Silalahi ". (Main respondent: Village tour guide Silalahi).

While opinion (2.62: tourists) states disagree, due to lack of media publication to be known by many people. Whereas if the promotion is done, the development of the destination will be a cultural attraction in increasing tourist arrivals (Figure 2). Promote the organization of cultural events, can be packed into a festival that can attract tourists and conduct it periodically [10].

Geowisata is now a form of appreciation of the meaning and uniqueness, of the diversity of inheritance Geology contained in an area to increase environmental awareness through efforts Conservation [3]. Statement of respondents with an average rating (3.66) opinion agree, participate in maintaining and not damage the beauty of Silalahi region. Understanding to geosite as a whole will help human beings understand the history of the earth, so growing concern for the protection efforts undertaken by surrounding communities.

The next statement submitted to the respondent is an interesting media interpretation and educative, like a history museum as a means of educating tourists. Respondents opinions with the average score (2.31) argue against the statement because educational facilities such as historical museums are not found in the village of Silalahi.

People living in the tourism environment can participate actively in revitalizing the whole region. Therefore, community participation is needed in managing the region tours. Statement of respondents with an average rating (3,28:) agrees with the participation of Silalahi village. It is visible of the involvement of the population capable of utilizing the physical condition as an economic activity.

The tourist destination will still have its selling power, and popularity of the satisfaction of tourists can maintain [14]. Percentage of respondents average score (3,49) agree with the special impression that visitors feel after visiting Village tour Silalahi. It is characterized by an increase in the number of tourist arrivals Increasing every year.

A destination can be said to be doing tourism development if it's already there tourist activities [15]. Development of tourism facilities will go through the planning stage to determine a direction of development of future destinations. In the process of tourism, planning is needed. The existence of good cooperation between the public and private parties so that all expectations of stakeholders can be fulfilled. As has been said by the main respondents in the interview.

"Actually if we look regarding planning the development of tourism facilities, from It has always been proclaimed, but always endlessly good or in other words Never been realized ". (Main respondent: Tourism Specialist)

4.2. Supporting facilities

Supporting facilities are facilities proportioned as complementary to the main facility tourists will feel more comfortable with the existing atmosphere. Provision of supporting facilities used by tourists to meet the needs, in the form of parking space, mosque, toilets, souvenir shopping stores, seats, and so forth. Through geotourism, the regional tourism can encourage and improve the regional economy through products and services offered, for example developing a shopping shop business. Location of support facilities usually located in a place that is easily reached by tourists [10]. Statement of supporting facilities (Table 4).

Table 4. Statement of supporting facilities

Support facilities	Mean (locals)	Mean (tourists)	Average
A. Easily find parking space	3,18	3,22	3,20
B. Easy to find means of	3,00	2,96	2,98

cleanliness			
C. Easy to find musholla	1,82	1,60	1,71
D. Easy find toilet	3,20	3,28	3,24
E. Condition of toilet is	3,24	3,00	3,12
adequate and feasible use			
F. There is a shopping shop	1,86	1,54	1,70
souvenir			
G. The presence of security	3,04	2,66	2,85
posts in tourist areas			
H. The existence of	2,56	2,76	2,66
facilities such as seating, and			
playground			
I. There is a consciousness of	3,16	3,00	3,08
tourists about environmental			
conservation			
in an educational manner			
J. The involvement of local	3,36	3,12	3,24
communities in the			
management			
1 = Strongly disagree, 5 = Strongly agree			

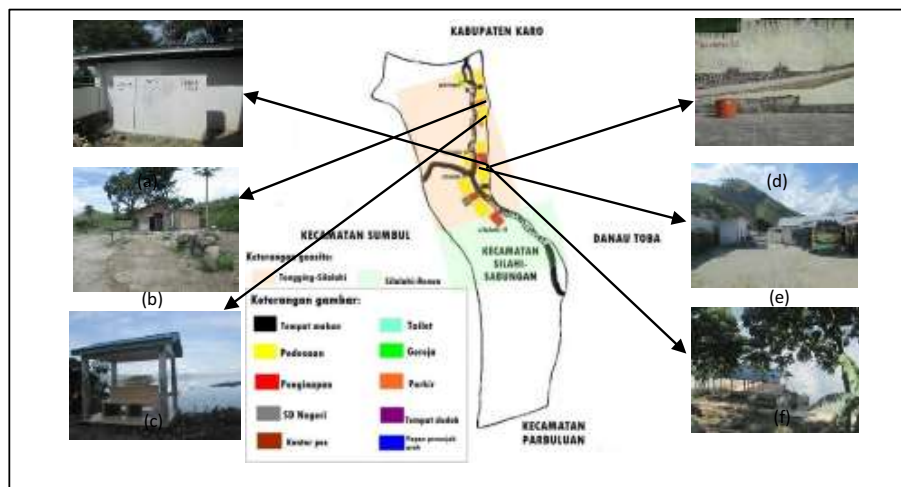


Figure 4. Map of supporting facilities (a) Public toilets at Silalahi monument (b) Public toilets in campground Paropo (c) Seating (d) Dumpster (e) Parking lot (f) Seating.

Provision of parking lots aims to improve safety and comfort for the vehicle which tourists use when traveling. Percentage of respondents opinions (3.20) states agree with the ease of parking in the tourist spots Silalahi village (Figure 4). It is also clarified by the tour guide in Silalahi monument area.

"After inaugurated the construction in 2011 ago, the provision of parking lots in the monument Silalahi is arguably wide because it can accommodate tens of four wheels or wheels two. Especially during Silalahi customs event, this area is filled with cars and cars From out of town to watch the Silalahi festival " (Main respondent: Tour guide)

A clean environment can make a place more interesting [16]. The average percentage of local residents (3.00) states agree with the presence Hygiene facilities at tourist spots Silalahi, while tourists (2.96) argue disagree with the ease of finding the means of cleanliness. Due to the number of waste

bins in each point of tourist location (Figure 4), still need the capacity that suits the needs Visitors to cleanliness can always be awake in every place.

The existence of a place of worship is also an important thing in developing tourism facilities. Because the mosque is a place where religious people worship in a congregation for meet spiritual needs. Statement of respondents with an average score (1.71) argue disagree with the ease of finding musholla. It is marked with the residents of the village Silalahi the majority of non-Muslims, so the musical facilities have not Provided up to now.

Provision of other supporting facilities that tourists need when traveling is a toilet. Toilet defined as the public space needed by everyone and become a core part of tourism environment. The respondent's opinion with the average score (3.24) agrees with the ease of finding toilet facilities at each point tourist sites (Figure 4). With safe and comfortable conditions, clean is also easy to reach, making it easier for tourists to use toilet services in Silalahi village. Statement given respondents (3.12) agree with adequate toilet conditions and worth to use.

Shopping is one of the activities of tourism because of some tourist spending Will be distributed for shopping. The average value of respondents (1.70) states do not agree with the souvenir shopping shop in Silalahi. This is because a lack of attention given by the government in the provision of shopping stores in the village the tourist area. The provision of souvenir shopping stores can actually raise the level living local people who are willing to entrepreneurship in Silalahi geological location. This is a comparison of other tourist destinations in the tourist attraction of Mount Batur, Kintamani, Bali. The existence of souvenir shops along the road Denpasar Kintamani into power Attract tourists to shop (Figure 5).



Figure 5. Shopping shop on Kintamani tourism, Bali

The existence of security posts became important in tourist destinations because of security is one of the tourism services. Respondents (3.04: local residents) agreed with the presence of security facilities in Silalahi area. The reasons are based on the understanding of people who already recognize the various facilities in their area (Figure 6).



Figure 6. Security posts in Silalahi village

However, different assessments are given (2,66: tourists) states disagree with the means security in Silalahi village. This is because the observations of tourists are not by reality which is in Silalahi village.

The opportunity to sit back and relax will make visitors feel comfortable so creating a quality of life somewhere [17]. Statement of respondents with an average score (2.66) are less amenable to provide playground facilities and venues sit. This is due to the lack of the number of leisure facilities and playground for The comfort of tourists while traveling.

The role of geotourism helps tourists increase their knowledge of natural resources and geology to keep it. The average value of respondents (3.08) States agree with the awareness of tourists to conservation values in an educational way. Because they are aware of the positive and negative impacts that will affect everyone there. Various tourism potentials are conserved for sustainable use in the future and can offer benefits to society [14].

The important thing to do next in developing tourist destinations in geology Silalahi is community involvement in the process of planning, preserving and developing to do community welfare. The average value of respondents (3.24) agreed with the inclusions of the community in

managing the area. Participation communities in managing the region will generate an economy for services which is reserved for travelers during their stay at tourist sites [5].

4.3. *Tourism auxiliary facilities*

Tourism auxiliary facilities are anything that supports ease of use the potential of its natural resources and ecosystem both in its original form and after its cohesiveness human creativity. Components are required for the activities performed to run optimally and benefit the people in the area. The purpose of procurement facilities. The support is to introduce and optimize the potential of natural resources. Statement tourism auxiliary facilities (Table 5).

Table 5. Statement of Tourism Auxiliary Facilities

Tourism Auxiliary Facilities	Mean (local)	Mean (tourist)	Average
A. Directions board directions to tourist site	2,62	2,68	2,65
B. There is an information center in the tourist area	2,48	2,26	2,37
C. The presence of visitor services around the tourist area	2,36	2,14	2,25
D. Availability of supporting equipment for tourist activities	2,06	1,94	2,00
E. Presence of local government and community involvement with support from the central government to foster and maintain the region well	3,22	3,08	3,15
F. A special impression is felt after getting the availability of supporting facilities	2,98	2,82	2,90

1 = Strongly disagree, 5 = Strongly agree

In developing geo-based attractions, provision of signage boards is important to provide. The respondent's opinion with the average score (2.65) disagrees with the signpost to the tourist sites. Results the observation states the provisions of a bulletin board to the tourist site Silalahi began to be provided by tourism, but the numbers are still limited. This is the reason for the local population and tourists disagree with the ease of finding a signpost in Silalahi. Required quality improvements and some board directions to the tourist place for making it easy for tourists to visit tourist destinations in Silalahi (Figure 7).

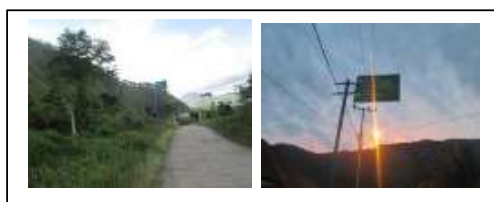


Figure 7. Sign posts at Silalahi

Tourist information is an information center that provides information to tourists about location, attractions, lodging, entertainment center, maps and everything about tourism in [19]. The respondent's opinion with the average score (2.37) states does not agree with the existence of information center facilities in Silalahi area. Because the role of the government has not yet launched the facility in Silalahi area.

Information center an important area is provided because it includes the needs of tourists when wanting to ask about something about the tourist attraction he was visiting. Also visitor service around the tourist area is also important provided. Statement respondents with an average score (2.25) argue disagree with the service of visitors in Silalahi village area; this is caused by reluctance tourists to interact directly with the community, bring a negative response to service visitors in Silalahi village.

A wide range of tourist activities will be supported by the facilities and services provided by Local communities in the geosite region [20]. Provision of support equipment become a tool to encourage tourist activities. The most visited tourist type in Silalahi village when researching is a young traveler. The increasing trend of young tourists Is a global phenomenon. The statement is supported by the UNWTO data that mentions that young tourist contributes as much as 20% of all travels in the world. However, facilities needed by young people while visiting the campground Paropo still somewhat difficult found. This is stated by respondents with average values (2.00) States do not agree with the availability of supporting equipment in Silalahi tourist area. Because The availability of such facilities has not been provided by the tourism.

5. Conclusions

The aspects of the accommodation get good responses are the Inn and hotel, which means the level of satisfaction of tourists according to the needs. However, there are some facilities that need attention, such as the provision of places to eat. Having trouble finding places to eat is a tourists ' needs that need to be provided. In addition, the opinion of the respondents with the lowest value, regarding the events of culture in the village of Silalahi caused by lack of publication that circulates through a variety of media. We recommend organizing done periodically to be promoted widely and systematically. Then a bad response on support facilities is the lack of a number of environmental hygiene facilities that make uninteresting. Should the number of on-site cleanliness can be improved for the cleanliness of tourist sites. In addition, the difficulty of finding a place of worship (small mosque) in Silalahi is caused by non-Muslim majority. See the increasing tourist visits, planning small mosque should be immediately planned. A bad response is also given, that there are no souvenir shops along the village Silalahi. But souvenir shops is an attraction tourism destination. In addition, the lack of a marker Board needs the right amount of tourists because it helps in communicating with people who read it. Auxiliary facilities component that gets a bad response is a central information and supporting equipment that requires a development plan, as it will make it easier for tourists to travel tourists and also benefit local communities the village Silalahi.

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