



# The Role of Community in Sustainable Tourism. Case Study: Girsang Simpangan Bolon

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**Abstract.** Sustainable tourism must consider three aspects of sustainability, namely economic, social and environmental aspects. To support sustainable tourism development, the community's role in tourism development or Tourism Based Community (TBC) is one of the critical principles that must be fulfilled because it is the component closest to and tied to regional tourism. This research examines the community's role in Girsang Sipangan Bolon District, Simalungun Regency in the development of sustainable tourism. The study uses quantitative methods by collecting data through distributing questionnaires. The observations show that the participation of local communities related to sustainable tourism in Girsang Sipangan Bolon is classified as good with an overall average score of 3.8 out of 4.5 for several indicators of local community participation in sustainable tourism

**Keyword:** Sustainable Tourism, TBC, Lake Toba

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## 1 Introduction

Although the term sustainability has been around for a long time, the focus of implementing sustainability in various aspects has only begun to be encouraged in the last few decades. Many developments are being oriented towards sustainability. In principle, sustainable development should meet the present's needs without sacrificing the right to fulfill future needs because of limited resources. It also applies to sustainable tourism development, which explores natural, social, and cultural resources, where these resources must be fought to be used in the future and meet sustainability principles.

Sustainable tourism must consider three aspects of sustainability: economic, social, and environmental. That way, tourism remains ecologically supported sustainably but still pays attention to ethics and social society and is feasible to improve the economy. The tourism sector can be a stimulant for the regional economy that improves people's welfare [1]. Sustainable

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tourism emphasizes the importance of tourism activities' positive impact, where tourism has created an increasing problem with local communities' environment, social, and culture [2]. In other words, the negative impacts of tourism must be avoided and encouraged by the positive sides of tourism activities themselves [3].

Sustainable tourism is a principle of tourism development based on the concept of sustainable development [4]. Lake Toba is one of the priority tourism destinations for the National Tourism Strategic Partnership (KSPN) [5]. Selecting Lake Toba as KSPN will directly affect other sectors such as economic growth, social, cultural, natural resources, environmental carrying capacity, defense, and security [6].

In 2020, Lake Toba, Borobudur, Mandalika, Labuan Bajo, and Manado Bitung-Likupang became National Tourism Strategic Areas with Super Priority, which the Ministry immediately approved of Tourism and Creative Economy. [7] Therefore, with Lake Toba's election, the sub-district, Girsang Sipangan Bolon, should provide industry players and tourism MSMEs such as food, beverages, and mobilization, which have become tourists' needs, so that the government must guarantee the quality and service to tourism[8].

Tourism is very attached to local communities' role because they play an important role in supplying the tourists' needs. It indirectly affects the behavior, lifestyle, and culture of the local community [9]. Therefore, the author is trying to bridge the principle of sustainable tourism to the community of Girsang Sipangan Bolon in Simalungun, remembering the importance of community roles in this sector.

To create sustainable tourism, it must fulfill several sustainable tourism principles, namely community participation, stakeholder participation, local ownership, sustainable resources, accommodating community goals, attention to carrying capacity, monitoring, and evaluation, accountability, training, and promotion. The community's role in developing tourism or tourism-based community (TBC) is one of the critical principles that must be fulfilled because it is the component closest to and tied to regional tourism. Therefore, this research will examine the community's role in Girsang Sipangan Bolon in developing sustainable tourism through quantitative research by distributing questionnaires and collecting secondary data. Involving local communities or Tourism Based Community (TBC) provides the most excellent opportunity for local people to contribute to sustainable tourism in their area [10].

## **2 Methods**

This research uses a quantitative method with data collection by distributing questionnaires to 101 respondents as a sample—respondents, namely local people who live in Girsang Sipangan Bolon. The questionnaire is conducted using a Likert scale to measure positive and negative responses from respondents on community participation perceptions in sustainable tourism in

the Girsang Sipangan Bolon. The statement regarding community participation has five choices of answers in the form of strongly agree (SS), agree (S), undecided (BS), disagree (TS), and strongly disagree (STS).

The data analysis technique is a descriptive analysis technique where this technique describes local community participation in tourism in Girsang Sipangan Bolon District. In the variable of local community participation in tourism, the primary variable from this research is Public perception of tourism. Thus, this variable is justified by six indicators to be measured from the questionnaires. The correlation of the variable and its indicators is listed in table 1.

**Table 1** Variable and Indicators related to Public perception tourism

Variable	Indicators
Public perception on tourism	Availability information of required tourism promotion
	Easy access to information regarding the sustainable tourism planning
	Satisfaction with the quality and quantity of tourism information provided
	Understanding the meaning of sustainable tourism
	Taking active role in tourism activities
	Fully understanding on the benefits of tourism






Source: Global Sustainable Tourism Council (GSTC)

Each indicator subsequently will be processed to obtain the average value of public perception on tourism. This average value is considered as total score of the public perception. As the formula to calculate the average is shown as below (1)

$$Average = \sum \frac{Total\ Score\ (likert\ Score\ x\ number\ of\ responses)}{Number\ of\ respondents} \quad (1)$$

After the average is obtained from each indicator, then it will be adjusted to the criteria of satisfaction range based on the local community's perceptions in. This range is described as table 2.

**Table 2** Satisfaction range based on the perception of Community Participation in Tourism

	Scale	Satisfaction level
	1 – 1,5	Very Disappointed
	1,6 – 2,5	Disappointed
	2,6 – 3,5	Satisfied
	3,6 – 4,5	Much Satisfied
	4,6 – 5	Very Satisfied

Perception criteria with an average of 1 - 1.5 mean local community participation in tourism is declared very dissatisfied. If The average perception criterion is 1.6 - 2.5, tourists' perceptions of local community participation in tourism are not satisfied. While if the criterion between 2.6 - 3.5, tourists' perceptions of local community participation in tourism are quite satisfied. The average perception criterion is 3.6 - 4.5, so tourists' perceptions of local community participation in tourism are satisfied. And the average perception criterion is 4.6 - 5, so tourists' perceptions of local community participation in tourism are very satisfied.

As for the respondents' criteria, the author had set up that any local person with a minimum age of 18 could be respondents in this research. Anyone who meets these criteria could be entitled to be a respondent.

### **3 Literature Review**

#### **3.1 Sustainable Tourism**

Current understanding has to highlight that sustainable development is standing over some pillars: economy, ecology or nature, and society, considering that sustainability is an effort to meet current demands without neglecting future needs. In contemporary human civilization, tourism has to take a critical role to be more developed, especially in Indonesia. The government and the local government are putting a massive consideration on developing tourism in this country. This consideration is probably reasonable because Indonesia has a vast tourism potential from natural and cultural heritage. As a potential sector, it has already positively impacted the economic sector [11]. However, sustainability tourism should also be given a positive impact on the social, cultural, and ecological environment. In other words, sustainable tourism development must be beneficial for all stakeholders.

Conceptually, sustainable tourism is managed in improving the welfare, economy, and even public health. Furthermore, it is said that the principles of sustainable tourism development are (1) maintaining the quality of the environment, (2) providing benefits to local communities and tourists; (3) maintaining the links between tourism and the environment; (4) maintaining harmony among local people, and environment, (5) create dynamic conditions tailored to carrying capacity, and (6) all stakeholders must work together on the same mission to realize sustainable development [12].

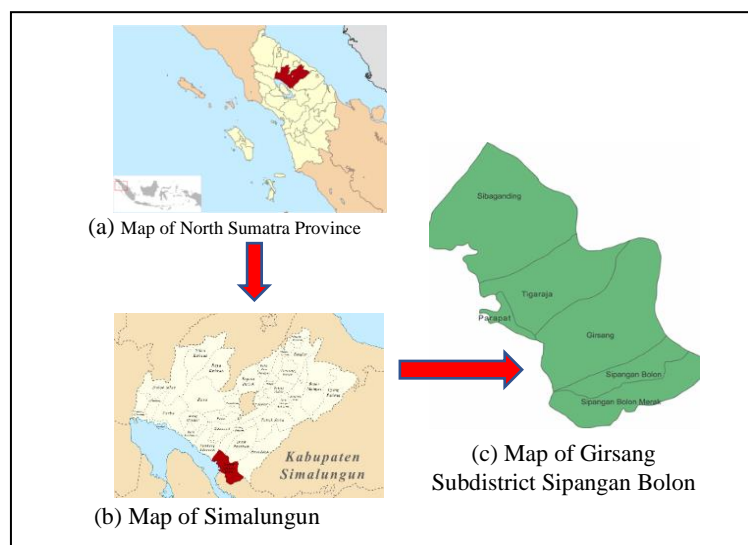
#### **3.2 Community Based Tourism (CBT)**

People who live around the tourism destination are the most important because they have a close relationship with the cultures and places. They are also providing necessary information and protecting the cultures and places. Therefore, the role of the community around the tourism places is significant. On discussing sustainable tourism, it is also linked to community-based tourism (CBT) as the main actors[13]. Sunaryo in Rizkianto (2018) has cited that the tourism-

based community is involving the community for particular benefit by mentoring and empowering the local communities to provide better opportunities and welfare[14]. The community should be aware of their presence around the tourism destination. Global Sustainable Tourism Council (GSTC) has listed some indicators on the public perception of tourism. The indicators are (1) Availability information of required tourism promotion Easy access to information regarding the sustainable tourism planning, (2) Satisfaction with the quality and quantity of tourism information provided, (3) Understanding the meaning of sustainable tourism, (4) Taking an active role in tourism activities and (5) Fully understanding on the benefits of tourism.

### 3.3 Demography

The election of Lake Toba as one of the strategic national tourism areas forces the surrounding area to maximize each region's tourism potential. One of those areas is the regional of Global Sustainable. Therefore his observation is conducted in Simalungun Regency, namely in the Girsang Sipangan Bolon District, located in North Sumatra, Indonesia. Lake Toba Tourism Object makes this district a destination for domestic and foreign destinations. Girsang Sipangan Bolon has six villages, namely Sipangan Bolon, Girsang Parapat, Tigaraja, Sibaganding, and Sipangan Bolon Mekar, as figure 1.



**Figure 1** Map of Research Locations Source: Processed Personal Data, 2020

According to census in 2010, showed total population of Girsang Sipangan Bolon area in total of 15,023 [15], where the number of men for six villages were 7,435 while women were 7,588. The specific number of total populations in this area is described as table 3.

**Table 3** Population by sub-district and Gender in Girsang Sipangan Bolon District

No	Sub- District	Male	Female	Total
1	Sipangan Bolon	488	499	987
2	Girsang	990	972	1.962
3	Parapat	3.606	3.600	7.206
4	Tigaraja	925	992	1.917
5	Sibaganding	821	865	1.686
6	Sipangan Bolon Mekar	605	660	1.265
<b>TOTAL</b>		<b>7.435</b>	<b>7.588</b>	<b>15.023</b>

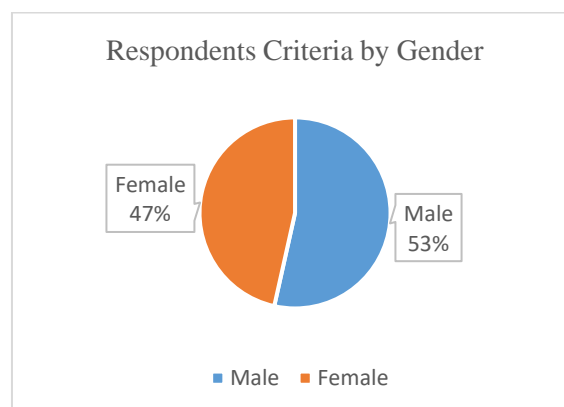
Source: BPS of Simalungun, 2010 [15]

The updated data from BPS (Center of Statistic Body) of Simalungun, there is an increased number of total population in Girsang Sipangan Bolon. In 2019, the total population has increased to 15,085. This total is multiply increased in last ten years[16].

## 4 Result and Analysis

### 4.1 Population and Sample

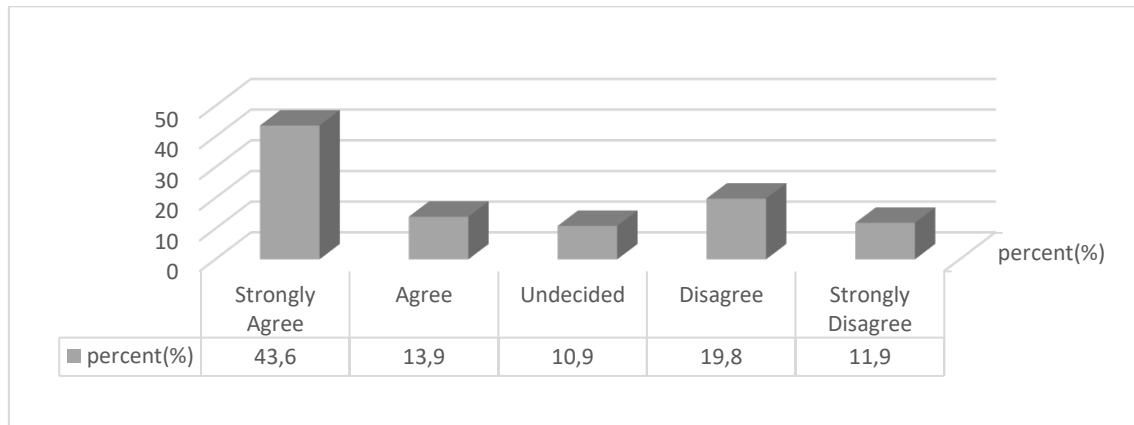
The total population of this research is the same as the total population of Girsang Sipangan Bolon. Unfortunately, the available data of the total population is stacked in 2019. Therefore, the author assumes there is an increased number of populations. Besides, this research sample is part of the population, and here the total sample is 101. The sample selection is carried out by choosing a random sample as long as they meet the criteria of respondents, which are a local person with a minimum age of 18 years. The percentage of respondent's gender is described in figure 2.



**Figure 2** Respondents Criteria by Gender

## 4.2 Analysis Technique

The results show some statistical data from the distributed questionnaires measuring the indicator of public perceptions on tourism. The first indicator, availability of tourism promotion information available, the statistical results obtained state strongly agree 43.6%, Agree 13.9%, Ordinary 10.9%, disagree 19.8 % and strongly disagree about 11.9% of 101 respondents. The result can be drawn as figure 3.



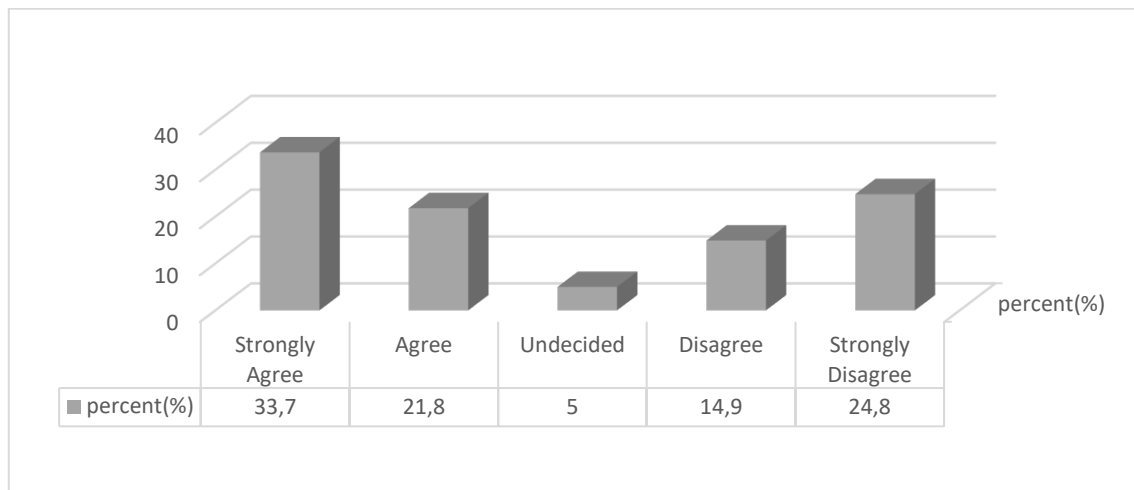
**Figure 3** Statistical diagram related to local people's perceptions of the availability of tourism promotion information

From figure 3, the respondent answers strongly agree more dominantly. It can be concluded that the availability of sustainable tourism information in local communities has been well spread. For further research, the researcher looks for the average and the percentage of the available tourism promotion information indicators, as shown in table 4.

**Table 4** Average percentage of local community perceptions regarding the availability of information on sustainable tourism

Score	Respon	Score X Respon
1	12	12
2	20	40
3	11	33
4	14	56
5	44	220
Average		3,57
%		71%

Furthermore, distributing questionnaires related to indicators of easy access to information regarding sustainable tourism planning obtained statistical results Strongly agree 33.7%, agree 21.8%, Ordinary 5%, disagree 14.9% and strongly disagree 24.8% who stated Regarding this indicator. The Result can see it in figure 4.



**Figure 4** Statistical diagram related to local people's perceptions of easy access to information regarding sustainable tourism planning

The diagram in Figure 4 shows that the highly agreeable score is very dominant in respondents' choice regarding local community participation in sustainable tourism in Girsang Sipangan Bolon district. With this, the facts related to indicators of easy access to information regarding tourism planning are straightforward to obtain. However, many respondents say it is still tricky, further explained in table 5 by looking for averages and percentages.

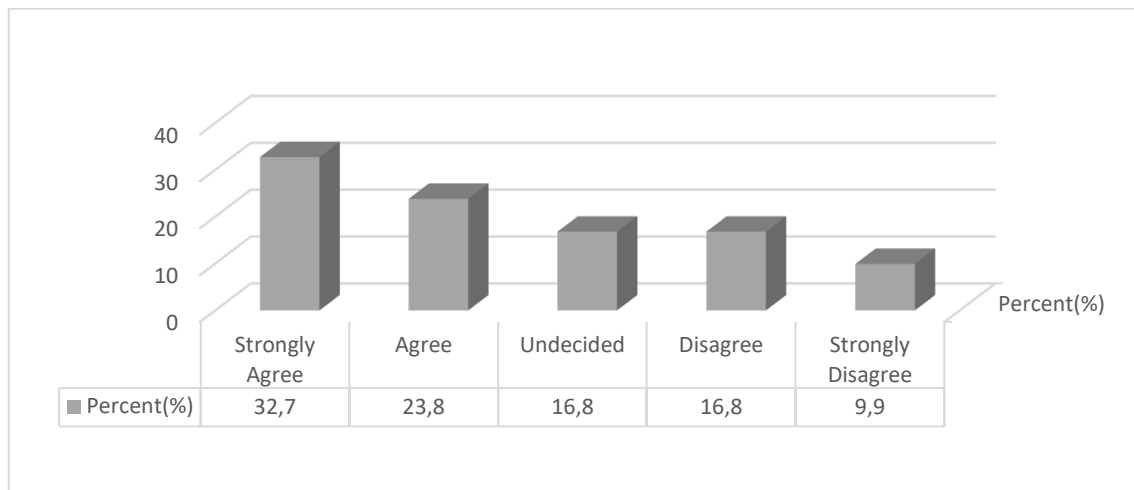
**Table 5** Average percentage of local community perceptions regarding the availability of information on sustainable tourism

Score	Respon	Score X Respon
1	25	25
2	15	30
3	5	15
4	22	88
5	34	170
Average		3,24
%		64%

Furthermore, the results of distributing questionnaires related to indicators of satisfaction with the quality and quantity of tourism information provided showed statistical results Strongly agree 32.7%, agree 24.8%, Average 16.8%, disagree 16.8% and strongly disagree 9, 9% who stated related to this indicator, can be seen in figure 5.

The diagram in figure 5 shows that the score strongly agrees very dominant when chosen by respondents regarding satisfaction with the quality and quantity of tourism information provided in Girsang Sipangan Bolon district. With this, the facts related to satisfaction indicators with the quality and quantity of tourism information provided are good, further explained in table 6 by looking for averages and percentages.



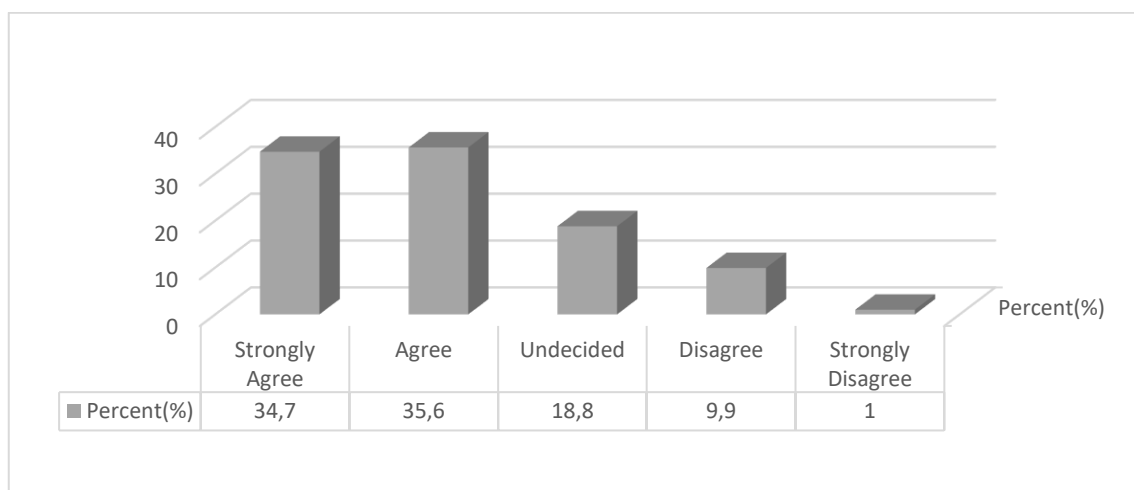


**Figure 5** Statistical diagram related to local people's perceptions of satisfaction with the quality and quantity of tourism information provided

**Table 6** Average percentage of local community perceptions regarding the availability of information on sustainable tourism

Score	Respon	Score X Respon
1	10	10
2	17	34
3	17	51
4	24	96
5	33	165
Average		3,52
%		70%

Furthermore, distributing questionnaires related to indicators of understanding what is meant by sustainable tourism provided were statistical results. Strongly agree 34.7%, agree 35.6%, Average 18.8%, disagree 9.9% and strongly disagree 1%, which states regarding this indicator, is shown in figure 6.



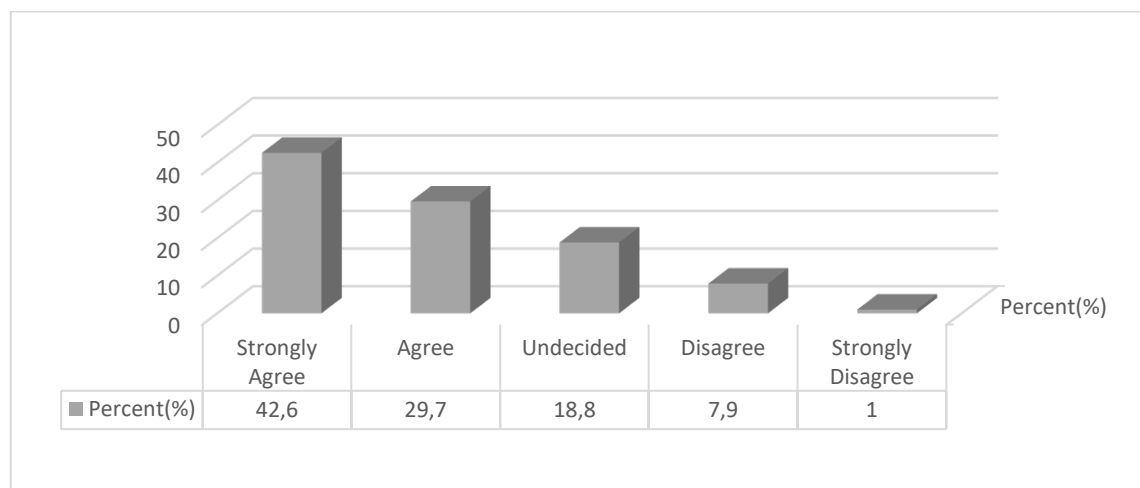
**Figure 6** Statistical diagram related to local people's perceptions of understanding what is meant by sustainable tourism

The diagram in figure 6 shows that the score strongly agrees and agrees more dominantly with respondents regarding satisfaction with understanding what is meant by sustainable tourism in Girsang Sipangan Bolon district. With this, the facts related to the indicators of understanding what is meant by sustainable tourism have been understood by the community, further explained in table 7 by looking for averages and percentages.

**Table 7** Average percentage of local community perceptions regarding the availability of information on sustainable tourism

Score	Respon	Score X Respon
1	1	1
2	10	20
3	19	57
4	36	144
5	35	175
Rata-Rata		3,93
%		78%

Furthermore, the results of distributing questionnaires related to indicators of an active role in tourism activities in the given environment obtained statistical results Strongly agree 42.6%, agree 29.7%, Ordinary 18.8%, disagree 7.9% and strongly disagree 1% who states related to this indicator, shown in figure 7.



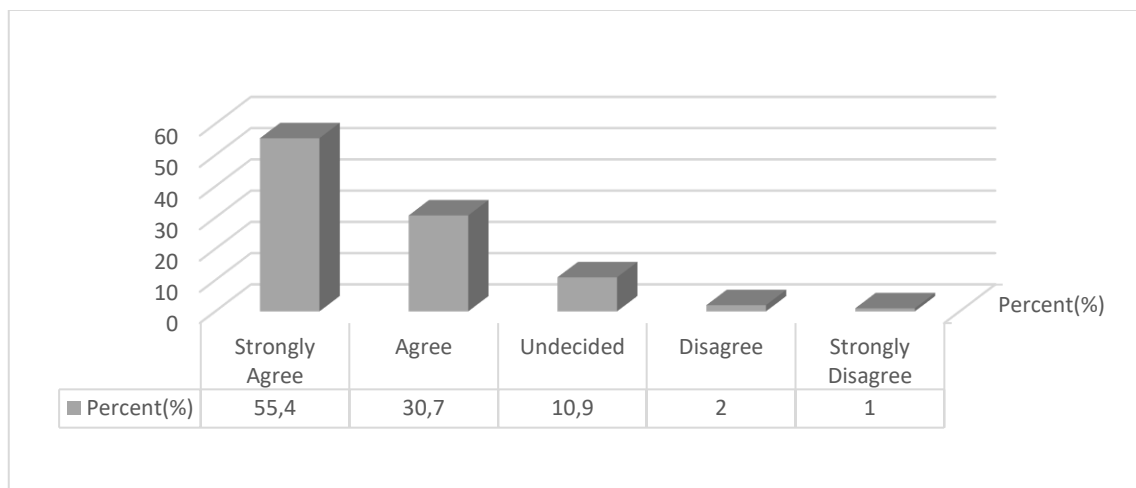
**Figure 7** Statistical diagram related to local people's perceptions of playing an active role in tourism activities in the environment

The diagram in figure 7 shows that the very agreeable score is more dominant when chosen by respondents to play an active role in tourism activities in the Girsang Sipangan Bolon district. With this, the facts related to indicators play an active role in tourism activities in the local community, further explained in table 8 by looking for averages and percentages.

**Table 8** Average percentage of perceptions of the local community regarding an active role in tourism activities in the environment

Score	Respon	Score X Respon
1	1	1
2	8	16
3	19	57
4	30	120
5	43	215
Average		4.04
%		80%

While the results of distributing questionnaires related to fully understanding the benefits of the tourism activities provided were statistical, strongly agree 55.4%, agree 30.7%, Ordinary 10.9%, disagree 2% and strongly disagree 1% who stated related This indicator, can be seen in figure 8.



**Figure 8** Statistical diagram related to local people's perceptions of fully understanding the benefits of tourism activities

The diagram in figure 8 shows that the very agreeable score is more dominant when chosen by respondents to play an active role in tourism activities in the Girsang Sipangan Bolon district. With this, the facts related to indicators fully understand the benefits of tourism activities by local communities, which are further explained in table 9 by looking for averages and percentages.

**Table 9** Average percentage of perceptions of local communities that fully understand the benefits of tourism activities

Score	Respon	Score X Respon
1	1	1
2	2	4
3	11	33
4	31	124
5	56	280
Average		4.37
%		87%

From the statistical data in table 10, The result can state that 77% or with an average of 3.8 the perception of local community participation in sustainable tourism in Girsang Sipangan Bolon District gets good indicators get a Good predicate. Only indicators access information about sustainable tourism planning which got the predicate quite well.

**Table 10** Average percentage of perceptions of local communities that fully understand the benefits of tourism activities

No	Component Issues and Indicators	Kondisi Eksisting 2020
C.	Community Participation in Tourism	3,6
C..1	The required tourism promotion information is available	3,3
C.2	I have easy access to information on sustainable tourism planning	3,6
C.3	I am satisfied with the quality and quantity of tourism information provided	4,0
C.4	I understand what is meant by sustainable tourism	4,1
C.5	I play an active role in tourism activities in my neighbourhood	4,4
C.6	I fully understand the benefits of tourism activities	4,4
Overall Average		3,8
Percent (%)		77%

Note :

Scale	Satisfaction
1 – 1,5	Very bad
1,6 – 2,5	Bad
2,6 – 3,5	Pretty good
3,6 – 4,5	Good
4,6 - 5	Very good

## 5 Conclusion

Based on the research that has been done regarding local people's perceptions of community participation in sustainable tourism in Girsang Sipangan Bolon District, Simalungun Regency, The Result can conclude that the results of the questionnaire obtained by the local community have received an excellent overall predicate.

Referring to the results of the data from the Likert score that has been distributed through the questionnaire, it is found that most of the local people agree. Some still do not know about sustainable tourism in Girsang, Sipangan Bolon Sub-district, so the stakeholders must educate the community, especially local communities regarding sustainable tourism planning in the District. Girsang Sipangan Bolon will create excellent and mature planning according to what has been determined in the National Tourism Strategic Area (KSPN) and assist in economic, social, cultural, natural resource growth, environmental support capacity, and defense and security.

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