



## Developing Nature Tourism Potency at Buffer Villages of Gunung Leuser National Park: Case Study of Bahorok Resort, Langkat Regency, North Sumatra

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### ABSTRACT

Bahorok is one of the sub-districts located in Gunung Leuser National Park (GLNP), Langkat Regency, North Sumatra Province. Bahorok has buffer villages that are directly adjacent to the national park such as Timbang Lawan Village, Batu Jongjong Village, and Lau Damak Village. These three villages have many interesting tourist attractions, such as natural scenery, rivers, mountains, waterfalls, caves, and flora and fauna. The prominent attractions in the village are the beautiful landscape, wildlife, and fresh air. This study aims to determine the potential of natural tourism and strategy to develop tourism in the buffer villages of GLNP, Bahorok Resort. The methods used in this study are observation and interview with purposive sampling. Data was analyzed using guidelines for developing destination and SWOT analysis. The results of this study show that the potential of tourism objects in buffer villages is feasible to be developed, and increases business opportunities. The three villages vary in developing tourism strategy, such as progressive strategy for Timbang Lawan Village (quadrant I), changing strategy for Lau Damak Village (quadrant III), and diversification strategy (quadrant II).

**Keyword:** Bahorok, Buffer Village Nature Tourism, Land Use Pattern Tourism Potential



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## 1. Introduction

Nature tourism is the activity of traveling to have fun and enjoy it which is carried out voluntarily and temporarily to enjoy the uniqueness and beauty of nature in wildlife reserves, national parks, grand forest parks, nature tourism parks, and increase knowledge, and others. Besides that, it can be interpreted as going on an excursion or picnic [1]. Natural tourist objects and attractions are the most important link in a tourism activity, because it be the reason that makes visitors or tourists visit destinations [2]. Strong and sustainable regional economic development is an effective collaboration between the utilization of existing resources, the community and the government. It's a concept of ecotourism. In this context, tourism is an inseparable part of conservation efforts, empowering the local economy and encouraging higher respect for cultural differences [3].

The development of natural tourism has an influence on the welfare of the community and also influences the increase in community income with the presence of tourist attractions such as beautiful nature, a good environment and interesting places that can provide employment opportunities for the community, facilities and accessibility that are available and adequate. attract tourists who will visit so that the more the number of

tourists who visit, the higher the income earned by the local community from the development of natural tourism [4].

An area directly adjacent to a conservation area where the area has limited land use and is provided with an additional layer of protection for the conservation area, a buffer zone has a general definition, an area that surrounds or is directly adjacent to the core area and is identified to protect the core area from negative impact of human activities, activities that may be carried out are only activities that support activities in the core area. The buffer zone is used for protection by using humans as protectors of conservation areas or core zones. The buffer zone area is an area between two different activities, namely the main activity and supporting facilities. The function of this area is to maintain the tourist image [6].

The buffer area of Gunung Leuser National Park (GLNP) has attractive natural potential to be developed as a tourist destination. One of them is at Bahorok Resort, Langkat Regency. The large area coverage allows for the development of tourist locations, other than well-known locations such as Bukit Lawang, thus allowing for alternative tourist destination development. This research aimed to identify the potential attractions in Bahorok Resort and analyze development strategies. It is hoped that the results of the research will be useful for tourism managers in preparing steps that must be taken in future development.

## **2. Method**

This research was carried out in April 2022 in Bahorok District of the GLNP buffer villages, namely Timbang Lawan Village, Batu Jongjong Village and Lau Damak Resort Bahorok Village, Langkat Regency, North Sumatra. Data processing and research data analysis were carried out at the Forest Resources Conservation Laboratory. The tools used in this research include stationery, camera, laptop and Ms Word, Ms Excel and Arcgis 10.3 software. The material used in the research was a questionnaire. The research location map can be seen in Figure 1.

### **2.1 Research Procedures**

Data collection uses qualitative methods by conducting interviews with key informants, the public and visitors, making observations and making questionnaires. Observation of objects and natural attractions was done to know and obtain the information needed to answer research problems. The results of observation are activities, events, and object conditions. Interviews was conducted as a process to collect and obtain information by asking questions and answers between researchers and informants, these informants include key informants of heads of villages, local communities, and visitors.

### **2.2 Data Collection**

Primary data required in this study include: the potential of Nature Tourism in Timbang Lawan Village, Batu Jongjong Village, and Lau Damak Village in Bahorok Resort then described descriptively and determine priority objects that have the potential to be developed. The secondary data required in this study include the general condition of the research location and visitors at Bahorok Resort.

### **2.3 Determnation of Respondents**

Respondents were chosen selectively from the management of tourist institutions, head of villages, farmers, and visitors located in Timbang Lawan Village, Batu Jongjong Village, and Lau Damak Village of Bahorok Resort.

### **2.4 Data Analysis**

Data from interviews and observation results of tourism attraction was analyzed descriptively based on natural scenery, tourist attraction, geology condition, wildlife existing, location connection with other destinations, facilities, and amenities. It refers to government regulation in developing objects and nature attractions from the Indonesian Ministry of Forestry. Determining the development strategy of natural attractions in the village is done by SWOT analysis (Strength, Weakness, Opportunity, and Threat). It is used to compare external factors (opportunities and threats) that affect the development of natural tourism with internal factors (strengths and weaknesses) in the development of natural tourism.

## **3. Result and Discussion**

We have been able to verify with feasible data the work developed in recent years invested in the creation and maintenance of a system of socioeconomic development through equitable

tourism carried out in this area. Small, well-focused investments with the appropriate work teams provide value to the villages. These in turn are bearers of sustainable development that invests time in educational programs and biodiversity conservation. The development of the villages adjacent to the Gunung Leuser National Park in a sustainable and equitable manner is a necessary bridge in the conservation of the ecosystem. Our work in this area has achieved accounting results that continue to grow and give way to new economic and social development programs. The collaboration of all counterparts and the union on the ground with the ministries make the sustainable tourism development program in these villages possible.



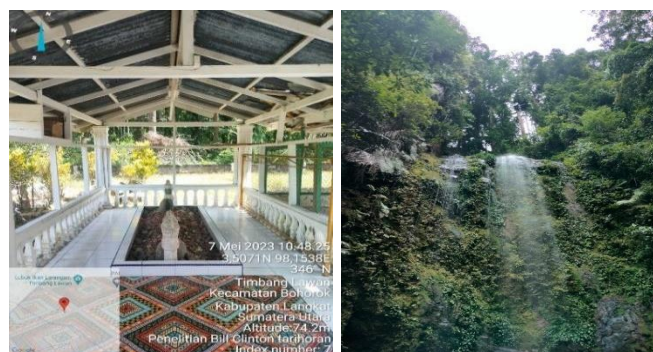
### 3.1. Potential Natural Tourism Objects in Bahorok Resort

The potential of natural attractions is a tourism site that utilizes the potential of natural resources, both in a natural state and after cultivation efforts, the results of research conducted by direct observation in the field that the potential of natural tourism objects located in Timbang Lawang Village is natural beauty, the flow of Landak River water and rocks, the potential of natural tourism in Batu Jongjong Village is a beautiful natural panorama, clean Batu Katak river flow, while the potential in Lau Damak Village is natural beauty, forests and caves. The very attractive natural beauty is very interested in many people to travel, with good natural beauty being a tourist attraction, especially the cool air makes visitors feel comfortable, the potential for natural beauty that can be presented by natural tourism in Bahorok District is the view of shady and green trees, beautiful rivers, caves, and waterfalls, this natural beauty can potentially be used as natural tourism to be enjoyed and also make one of the additional income of the people who live around the natural tourism.

(a)

(b)

(c)



(d)

(e)

Figure 2. Tourist attractions in Timbang Lawang Village (a) Forest Panorama, (b) Bahorok River, (c) Landak River, (d) Datok Landak Tomb, and (e) Selang Pangeran Waterfall.

The potential for natural tourism in Timbang Lawang Village also has natural tourist destinations that are very interesting for tourists to visit, such as protected forest areas which have stunning natural panoramas with a background of green trees that make tourists interesting to visit, the Landak River flow is one of the destinations that is often attracted by visitors who have good views and clean water that makes visitors comfortable in the river, and there are also mountains and selang pangeran waterfalls that can be enjoyed by

tourists visiting Timbang Lawan Village. And Timbang Lawan Village also has a potential Bahorok river which is used as a tourist attraction where the river can be used as a bathing place, swimming and is also very suitable for camping for visitors because the riverbank is very safe to be used as a camping place and build tents. Timbang Lawan Village has a panoramic view of the Landak and Bahorok rivers, which are the main attraction of the village, rare plants and also the existence of wildlife that cannot always be seen directly [12].

Batu JongJong Village is a village that has natural tourism potential that is very interesting to visit such as green forest panoramas, Batu Katak river waters that can be enjoyed for bathing and swimming, the location of natural attractions is very close to community settlements, and facilities owned at this natural tourist location such as lodging, restaurants, toilets and parking lots for visitors. Batu Katak is a tourist attraction located in Batu Jongjong Village, the object is directly adjacent to TNGL so that the tourist attraction still looks beautiful and very natural, Batu Katak tourist attraction has many rides including a green river flow with a water discharge that is not too heavy and also not deep so that it can be enjoyed by all groups [13].

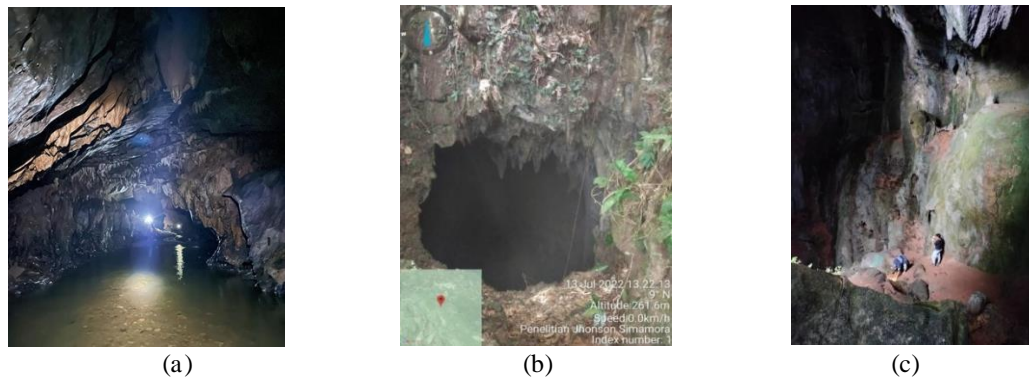


Figure 3. the Water cave (a), Batu Rijal cave (b), and Pintu Angin cave (c) at Lau Damak

Lau Damak Village is a village that has natural attractions that are very interesting to visit by tourists from within and outside the country where the village saves tourist destinations that are very good for tourists to visit, natural attractions that can be enjoyed are caves, in the village there are many caves ranging from large caves and small caves. The very famous caves in Lau Damak Village which are visited by many tourists are the Water cave, Batu Rijal cave, and Pintu Angin cave. These caves have their own uniqueness that can be enjoyed by tourists. However, to go to these caves, visitors must do tracking because the cave is in the middle of a highland forest and passes through community farms and to reach the cave visitors need a tour guide or what is commonly called a Tourguide, where the guide is needed to guide tourists to the tourist attraction they want to go to which can bring tourists to the cave.

### 3.2. Result of SWOT Analysis

SWOT analysis (Strength, Weakness, Opportunity, and Threat) is one of the analytical methods used to monitor, evaluate, review and determine the development strategy of natural attractions in TNGL buffer villages in Bahorok District as a whole (The Total Tourism System), the main components that become aspects of the discussion, namely internal and external factors. This internal factor affects the formation of strengths and weaknesses. Where this factor concerns the conditions that are happening, which affects the formation of decision making. Internal factors are entered into a matrix called the internal strategic factor matrix or IFAS (Internal Strategic Factor Analysis Summary). While external factors affect the formation of opportunities and threats. Where this factor concerns the conditions that occur outside that influence decision making.

External factors are entered into a matrix called the EFAS (External Strategic Factor Analysis Summary) external strategy factor matrix. After the matrix of internal and external strategic factors is completed, the results are then entered into a quantitative model, namely the SWOT matrix to formulate a competitive strategy. Strengths, weaknesses, opportunities, and threats, according to the information data and direct observations in the field, as well as the analysis described in the previous discussion. Therefore, the function of SWOT analysis and competitive strategy that we can see and know is to analyze the strengths, weaknesses, and competitive advantages possessed through analysis of internal conditions, as well as analysis of the opportunities and threats faced through analysis of external conditions, then the analysis factors can be seen in Table 1.

Table 1. SWOT Analysis Matrix in Timbang Lawang Village

E K S T E R N A L	INTERNAL		
	Identification of Factors	STRENGTHS (S)	WEAKNESS (W)
		1. Beautiful and cool natural beauty 2. Tourism potential that can be developed 3. Natural conditions, physical conditions, and the location of the object are very natural and maintained 4. Strategic location 4. Endemic wildlife	1. Tourist facilities and supports are limited 2. Tourism potential has not been managed properly and maximally. 3. Lack of funds that hamper the management of tourism development. 4. Lack of government attention and support in tourism development
	OPPORTUNITY (O)	STRATEGY S-O	STRATEGY W-O
	1. Government policy and support 2. Development of natural resources that can be utilized for tourism development 3. Good security conditions supported by the friendliness of local community 4. Preserving waterfalls and rivers 5. High desire to travel and recreate in nature	1. Utilizing natural resources and natural beauty as a tourist attraction 2. Maximize the management of tourism potential with the support and assistance of the government 3. Optimizing community participation and support in nature conservation 4. Improve the performance of tourism managers and local communities by equipping tourism facilities	1. Complete supporting facilities for tourism activities with the help of support and funds by the local government. 2. Assist local communities in managing and developing tourism potential 3. Conduct training to local communities by managers and the government in managing tourist attractions 4. Improvement of facilities and infrastructure to support tourism activities and activities
	TREATHS (T)	STRATEGY S-T	STRATEGY W-T
1. Possible environmental pollution 2. Possible disruption of wildlife around the tourist area 3. Reduced community attention in preserving tourist attractions 4. Changes in people's lifestyles from the influence of local and foreign tourists who visit natural attractions	1. Conduct socialization with the community about their tourism potential 2. Conducting counseling to the community in environmental conservation 3. Make rules prohibiting visitors from disturbing or providing food to wildlife that appears in the tourist attraction area 4. Promoting or marketing the introduction of existing natural attractions	1. Maintenance of the potential attractions owned by the village is carried out by the local community and tourism management. 2. Paying attention to the cleanliness of tourist attractions in preserving the environment 3. Maintain and avoid wildlife habitat areas so as not to be disturbed 4. Increased government participation in supporting the development of tourist attractions 5. Socialize the people who live around the tourist attraction about the importance of the role of natural resources into a tourist attraction.	

Table 2. IFAS and EFAS matrix of nature tourism development in Timbang Lawang Village

Faktor-faktor Internal	Weight	Rating	Score
<b>Strength:</b>			
-natural scenery	0,25	5	1,25
-tourism potency	0,25	4	1
-geology condition	0,17	4	0,68
-strategic location	0,17	3	0,51
-wildlife	0,16	3	0,48
<b>Total</b>	<b>1</b>	<b>19</b>	<b>3,92</b>
<b>Weakness:</b>			
-facilities and amenities	0,25	3	0,75
-tourism potential is not managed well	0,25	3	0,75
-lack of public knowledge	0,25	4	1
-lack of government support	0,25	4	1
<b>Total</b>	<b>100</b>	<b>14</b>	<b>3,5</b>
Faktor-faktor Eksternal	Weight	Rating	Score
<b>Opportunities:</b>			
-government policy	0,23	4	0,92
-natural resources development	0,16	4	0,64

-security conditions	0,23	4	0,81
-preserving waterfall and rivers	0,15	4	0,6
-motivation to visit destination	0,23	4	0,92
<b>Total</b>	<b>1</b>	<b>20</b>	<b>3,89</b>
<b>Threat:</b>			
-environmental pollution	0,28	3	0,84
-disturbing wild animals	0,27	3	0,81
-lack of public attention	0,27	3	0,81
-changes in community lifestyles	0,18	2	0,36
<b>Total</b>	<b>1</b>	<b>11</b>	<b>2,82</b>

In Table 2 it can be concluded that, of the internal factors in the development of natural tourism objects in Timbang Lawan Village. The strength factor with the resulting score is **3.89**, while for weaknesses the resulting score is 3.5. The result of the calculation of strengths-threats, **EFAS is  $3.92-3.5 = 42$** . From the calculation of the EFAS factor analysis in Batu Jongjong Village, it can be seen the strength value is greater than the weakness value obtained, which has a difference in value of **0,42**. In the analysis results external factors in the development of natural attractions in Timbang Lawan Village. The opportunity factor (*Opportunities*) the number of scores generated is **3,89**, while for threats (*Threats*) the number of scores generated is **28,2**. The result of the calculation of opportunities-threats, **EFAS is  $3.89-28.2 = 130$** . With the calculations carried out, it is known that the EFAS score value obtained is that the number of opportunity scores is greater than the number of threat scores with a score difference of **1,07**.

Based on Table 19, it can be concluded that, from external factors in the development of natural attractions in Batu Jongjong Village. The strength factor (Strength) with the number of scores generated is 4, while for weaknesses (Weakness) the number of scores generated is 3. The result of the calculation of the strength-threat, **EFAS is  $4-3 = 1$** , thus it is known that the calculation of the number of IFAS factor scores in Batu Jongjong Village can be known that the number of strength scores is greater than the number of weakness scores with a difference of **1**. The results of the analysis of internal factors can be known that, on external factors in the development of natural attractions in Batu Jongjong Village. Obtaining the opportunity factor (Opportunities) the number of scores generated is **3,37**, while for the threat factor (Threats) the number of scores generated is **4**. The result of the calculation of opportunities-threats, **EFAS is  $3,37-4 = 63$** . Thus it can be seen that the number of EFAS factor scores generated in Batu Jongjong Village is that the opportunities obtained are smaller than the threats with a difference of **-63**.

In table 20 it can be concluded that, from the Internal factors in the development of natural attractions in Lau Damak Village. The strength factor (Strength) with the number of scores generated is **3,5**, while for weaknesses (Weakness) the number of scores generated is 4. The result of the calculation of the strength-threat, **IFAS is  $3,5-4 =$** . Therefore it can be seen that the results of the total score of the EFAS factor in Lau Damak Village, the strengths obtained are greater than the weaknesses with a difference of **0,5**. On the results of the analysis of internal factors it can be seen that, external factors in the development of natural attractions in Lau Damak Village. The opportunity factor (Opportunities) the number of scores generated is 4, while for threats (Threats) the number of scores generated is **3,66**. The result of the calculation of opportunities-threats, **EFAS is  $4-3,66 = 0,34$** . The results of the total score of the EFAS factor obtained in Lau Damak Village, the opportunities generated are greater than the threats with a difference of **0,34**.

The following results are obtained after conducting interviews and direct observation of the research location, then the results of the value of the strength (Strength), weakness (Weakness), as well as threats (Threats), and opportunities (Opportunities) factors in Timbang Lawan Village, Batu Jongjong Village, and Lau Damak Village. After multiplying the weight and rating, to find out the strategy that is suitable for use in the development of natural attractions in the three villages, then the results obtained in the calculation are then entered into the following final score Table 3.

Table 3. Final results of IFAS and Efas factor values in Timbang Lawan Village, Batu Jongjong Village, and Lau Damak Village

No.	Factor	Timbang Lawan			Batu Jongjong			Lau Damak		
		b	r	b x r	b	r	b x r	b	r	b x r
<b>IFAS</b>										
1.	Strength	1	19	3,92	1	12	4,0	1	14	3,5
2.	Weakness	1	14	3,50	1	15	3,0	1	16	4,0

Total (S-W)				0,42		1,0		-0,5		
<b>EFAS</b>										
3.	Opportunity	1	20	3,89	1	12	3,37	1	12	4,0
4.	Threat	1	11	2,82	1	11	4,0	1	11	3,66
Total (O-T)				1,07		-0,63		0,34		

Based on the calculations in Table 21, it can be seen that the results in Timbang Lawan Village have a higher strength factor value than weaknesses with a difference in value of (+) 0,4, while the value of opportunities with threats in the village has a difference value of (-) 1,07, where the value of threats is greater than the value of opportunities. Batu Jongjong Village has a strength value greater than the weakness value with a difference of (+) 1,0, while the value of opportunities in the village is smaller than the threat value with a difference of (-) 0,63. Meanwhile, Lau Damak Village has a lower strength value than weaknesses with a difference of (-) 0,5, while the value of opportunities is higher than the threat value which has a difference of (+) -0,34. From the results of the identification of the IFAS and EFAS factors in table 33, it can be depicted on a SWOT diagram which can be seen in Figure 4:

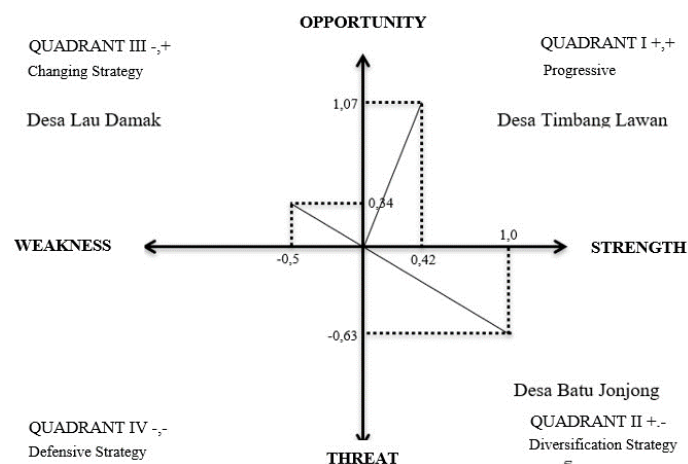


Figure 4. Analysis SWOT diagram

From Figure 7 of the SWOT analysis above, it can be seen that the strengths and weaknesses as well as opportunities and threats in Timbang Lawan Village, Batu Jongjong Village, and Lau Damak Village in an organization and can determine the position of an organization concerned. Quadrant I is a very favorable situation, because it has opportunities and strengths so that it can take advantage of existing opportunities. The strategy that must be applied in this condition is to support aggressive growth policies (Growth). Quadrant II, despite facing various threats, still has internal strengths. Quadrant III is facing great opportunities, but on the other hand must face several obstacles, namely internal weaknesses. Quadrant IV is a very unfavorable situation because it faces various threats and internal weaknesses [15].

In Figure 7, it can be seen that the strategy is suitable for the development of natural attractions in Timbang Lawan Village, Batu Jongjong Village, and Lau Damak Village. In the figure above, the strategy that is suitable for the development of natural attractions in Timbang Lawan Village is to use the SO (Strength-Opportunities) strategy, namely optimizing strengths (Strength) to take advantage of opportunities (Opportunities), this shows that this strategy has strengths and opportunities that encourage and increase the utilization of existing opportunities and optimize strengths to generate benefits for the community, the environment and the village itself.

In Figure 7 it can be seen in quadrant II of Batu Jongjong Village, it can be seen that the development strategy that is suitable for use in the village is the ST (Strength-Threats) strategy, which is a strategy that uses strength (Strength) to overcome threats (Threats). This strategy is intended to continue to carry out activities that develop aggressively, both from the local government and the village community, all parties must work together in order to realize the development of natural tourism villages that have been planned. In Lau Damak Village, it can be seen in Figure 7 in Quadrant III, showing that the suitable strategy used for the development of the village is the WO (Weakness-Opportunities) strategy, where the strategy minimizes weaknesses (Weakness) to take advantage of opportunities (Opportunities). This shows that this strategy is applied based on the utilization of existing opportunities by minimizing existing weaknesses. The following conclusions on

the strategies used in the development of natural attractions in Timbang Lawan Village, Batu Jongjong Village, and Lau Damak Village can be seen in Table 4.

Table 4. Results of strategy determination based on SWOT

<b>Desa Timbang Lawan</b>	
<b>SO (Strength - Opportunities)</b>	
1.	Utilizing natural resources and natural beauty as a tourist attraction
2.	Maximize the management of tourism potential with government support and assistance
3.	Mengoptimalkan partisipasi dan dukungan masyarakat dalam pelestarian alam
4.	Improve the performance of tourism managers and local communities by completing tourism facilities to support increased tourist activities in making visits
<b>Desa Batu Jongjong</b>	
<b>ST (Strength-Threats)</b>	
1.	Optimize the potential of natural resources and maintain the cleanliness of the tourist attraction environment by making enough trash bins and making a ban on littering so that the area is not polluted.
2.	Development and construction of environmentally friendly tourist attractions by conducting environmental management activities in preserving tourist attractions with the local community.
3.	Making superior products (souvenirs) such as souvenirs, handicrafts and utilizing strategic locations to sell souvenirs and handicrafts.
<b>Desa Lau Damak</b>	
<b>WO (Weakness-Opportunities)</b>	
1.	Optimizing natural resources that have the potential to be used as tourist attractions by cooperating with private companies to support the development of tourist attractions.
2.	Utilizing labor from the local community in managing tourist attractions.
3.	Increase community participation with the management to complete the facilities needed in tourism activities.

### 3.2. Land Use Patterns in Timbang Lawan Village, Lau Damak Village, and Batu Jongjong Village

Land use is a human activity that is closely related to land, which can be indirectly seen using satellite imagery. Land use patterns can also be interpreted as special or spatial configurations in an area for a certain time. In addition, land use patterns can describe the socio-economic conditions of the community. Land use can be studied from several perspectives so that there is no one definition that is completely appropriate in all the different contexts, land use is directly related to activities carried out by humans on certain land areas, such as settlements, cities, and rice fields. Land use is also a use of land and the natural environment used by humans in meeting their daily needs where land use is used by humans as agricultural land, land is used as plantations, rice fields and fields [16]. The results of the land use pattern map obtained in Timbang Lawan Village, Batu Jongjong Village and Lau Damak Village using the Arcgis 10.3 application. Can be seen in the following Figure 5.

Table 5. Extent of land use patterns in 3 Villages of Bahorok Resort

NO	Land Use	Timbang Lawan	Lau Damak	Batu Jongjong
		Area (ha)	Area (ha)	Area (ha)
1.	Settlement	45,30	13,14	9,06
2.	Garden	1314,62	2551,95	461,52
3.	Ricefield	267,49	-	-
4.	Field	35,2	230,15	-
5.	Forets	395,68	1035,05	1449,64
6.	Date area TNGL	96,48	1775,55	6548,79

In Table 5, it can be seen that the land use patterns used in the three villages are in settlements, gardens, rice fields, fields, and forests. The majority of people in Timbang Lawan Village, Batu Jongjong Village and Lau Damak Village are farmers and most of the people who have little land and people who do not have land, to meet the needs of the community, the people in the three villages work on plantations owned by private companies and state companies in the three villages the most land is used as garden land, where in Timbang Lawan village the land area used as a garden is 1238 ha, in Batu Jongjong village the land used for gardens

has an area of 2230 ha, while in Lau Damak village the land used as a garden in the village has an area of 770 ha. In Lau Damak Village most of the land used is a plantation which has an area of 2230 ha, in the village the land is used for oil palm plantations and rubber plantations, in addition to land for plantations most of the land in Lau Damak Village is protected forest land, namely GLNP forest, so that the village does not have land for rice fields and the settlements used are very small only have an area of 15 ha, because the village is still little inhabited by the community..

As is known, Timbang Lawan Village, Lau Damak Village, and Batu Jongjong Village are villages that are directly adjacent to GLNP where the village is surrounded by GLNP forests so that the land in the three villages is mostly forest land. Batu Jongjong Village is the village that has the most extensive forest land, namely 6350 ha, and the least forest land is Timbang Lawan Village, which is 426 ha. Rapidly increasing population growth causes the ratio between the number of people and the availability of land for the population to be unbalanced due to unbalanced land use, indicating population pressure on land. To make optimal land use in a well-organized manner, biophysical factors (soil, climate, hydrological conditions, flora and fauna) and the state of the population in an area must be given more attention that should not be ignored to realize good planning and management of land use and natural resources.

Land use patterns in Bahorok District, land that can be utilized as a tourist attraction is forest land, forest land can be utilized and developed as a tourist attraction. Forest utilization by making the area according to the provisions of the law is considered legal based on the provisions that must be adhered to and forests that can be used as tourist attractions are forests. The forests in Timbang Lawan Village, Batu Jongjong Village, and Lau Damak Village can be utilized as tourist attractions that have destinations such as enjoying the cool forest scenery, seeing the flora and fauna in the forest, and conducting tracking activities. These destinations can be used as an attraction for visitors to visit if forest land is utilized as a tourist attraction. In interviews conducted with related parties such as village officials and also the community said that forests are also important things that are used as tourist attractions, with the presence of forests adding beauty and also making tourist attractions in Bahorok District cool and natural.

#### 4. Conclusion

Based on the results of this study, it can be concluded that natural tourism in Timbang Lawan Village, Batu Jongjong Village, and Lau Damak Village has the potential for natural beauty that can be utilized as an alternative tourist destination. This tourist attraction can increase business opportunities in the village, and tourism potential in the three villages is feasible to be developed as new destination. The three villages vary in developing tourism strategy, such as progressive strategy for Timbang Lawan Village (quadrant I), changing strategy for Lau Damak Village (quadrant III), and diversification strategy (quadrant II).

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