

# Regional Sustainable Tourism for Developing the Ecotourism

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**ABSTRACT**--Abundant and beautiful natural wealth in Central Java Province, Indonesia is a natural asset for tourism sector. The problem raised is the tradeoff between the increase in income from the tourism sector and the risk of damage to nature, due to the increased efficiency of the tourism. This study aims at: 1) Analyzing the potential of nature-based tourism in the province of Central Java; (2) Analyzing sustainable tourism development strategies. These objectives were carried out using descriptive analysis, and IFAS (Internal Factor Analysis Strategy) and EFAS (External Factor Analysis Strategy) methods to analyze strategies. The results of the study show a map of nature-based tourism potential in Central Java based on the district and its characteristics analysis. Strategies based on internal factors (IFAS) and external factor analysis strategies (EFAS) include: Development of tourism in Central Java requires an aggressive strategy by fostering ecological enthusiasm and conservation of nature from the beginning at every level of education. Improving the quality of human resources in the tourism sector. Massive education is needed about the need for ecosystem preservation for domestic and foreign tourists. Support from stakeholders at the central and regional levels has an important role. Development of education that accommodates nature conservation curriculum material and the concept of ecotourism. Technology development to provide tourism information, especially for people who currently have a lifestyle back to nature.

**Keywords:** Nature-based tourism, ecotourism, IFAS, EFAS, strategy

## I INTRODUCTION

The development of tourism sector in the last decade was marked by changes in people's lifestyles, in which they are more interested in diversifying typical tourism markets with environmental themes, natural beauty, culture and adventure in the wild nature. The offer of activities to travel in nature, enjoy traveling (hiking) and interact with other living things becomes one of the interesting segments for the tourists (Sweeting & Bruner, 1999). According to The International Ecotourism Society (2006), nature-based tourism has grown significantly with an annual growth rate of 10 to 30%. This proportion increases because the nature-based tourism continues to grow faster than the whole tourism sectors. The geographical development of the ecotourism market is very significant in Asia, Africa and South America. Moreover, it may even reach 40 to 60% of all international tourist visits in certain countries in this region. This then has encouraged the tourism sector in several countries to be developed based on natural beauty although, they also realize that excessive activity in nature and the

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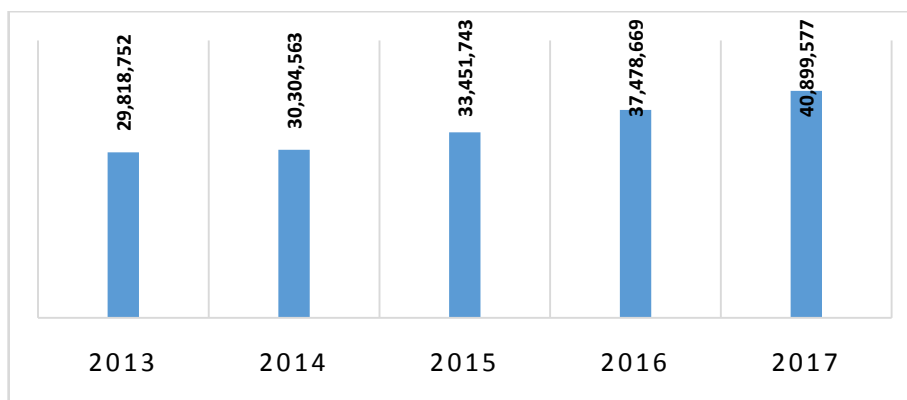
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environment will disturb the ecosystem (Awazi, 2002; Weaver, 1995). Therefore, a strict policy is required in managing tourism activities in the environmental field.

The development of tourism sector in Central Java Province, as summarized in Figure 1, shows an increase every year. In 2016 the growth of the number of tourists reached 12% and in 2017 the growth of it reached 8.3%. In the era of President Joko Widodo, tourism sector is designated as the leading sector, which is expected to be able to drive other sectors to support it. Tourism sector is a new type of industry that may accelerate the economic growth through employment providing, standard of living, and driving other productive sectors.



Source: Department of Youth, Sports, and Tourism, Central Java Province

**Figure 1:** Number of Tourists in Central Java

The increase in the number of tourist visits in Central Java Province is supported by an increase in the number of tourism objects visited. The biggest proportion of tourism objects in Central Java is nature-based tourism. Table 1 shows that the number of natural tourism sites in Central Java has increased every year. This shows that more and more natural beauty that were originally closed and could not be enjoyed by the people have been open as tourism sites.

**Table 1:** Number of Tourist Attractions according to Types in Central Java Province

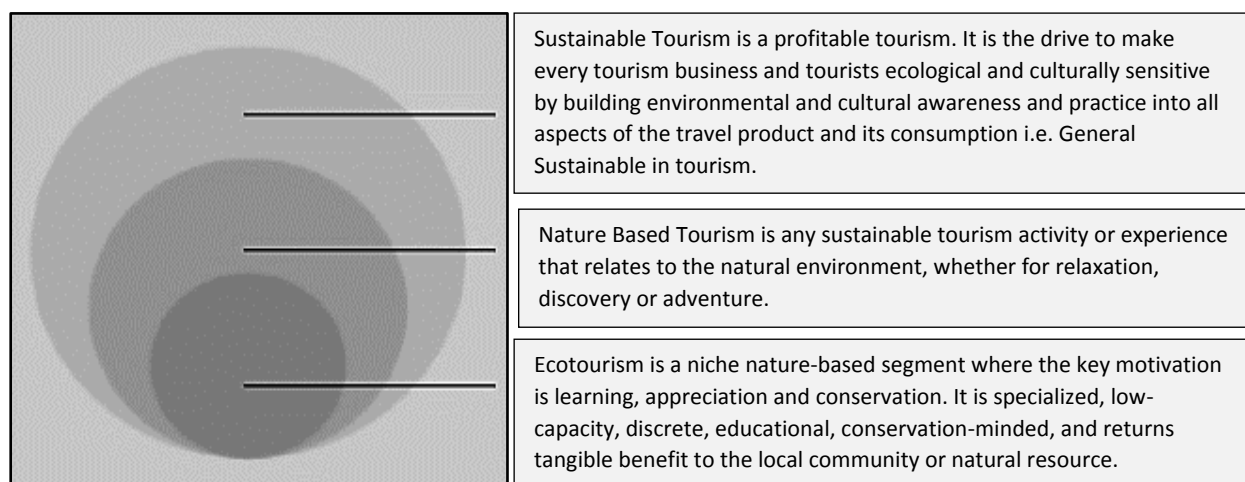
Year	Nature	Culture	Artificial	Special Interest	Others	Total Number
2013	132	88	105	21	71	417
2014	148	85	117	19	98	467
2015	160	82	131	27	77	477
2016	182	110	146	31	82	551
2017	209	173	127	32	74	615

Source: Department of Youth, Sports, and Tourism, Central Java Province

This development is a challenge for increasing the development of the tourism sector. It is because on the one hand the increase in tourist attractions and the number of tourist visits is a hope for the economic growth of the people, on the other hand it faces the challenges of negative impacts on nature and environment. This study has two objectives those are analyzing the potential of nature-based tourism in Central Java Province and analyzing the sustainable tourism development strategies.

## II LITERATURE REVIEW

Nature-based tourism and ecotourism are the new lifestyle trends that encourage the high regional growth. Although the number of nature-based and ecotourism tourists is still less than the total of the international visitors, the high growth rates and the unique and interesting characteristics of natural wealth are the leverage of commercial tourism business in natural tourism objects (Merlino 1993; Moore & Carter 1993; and Pleumarom A, 1994 ). Various researches and studies have developed rapidly related to the concept of nature-based tourism and ecotourism. Researches conducted by Eagles et al. (1995) and Chiu, Lee, & Chen. (2014) show that ecotourism business has the potential to globally change the structure of the nature-based tourism industry.



Government of South Australia (2003)

**Figure 2:** Relationship between nature-based tourism, sustainable tourism and eco-tourism

Various definitions of sustainable tourism, nature-based tourism and ecotourism obviously have various understanding of thinking. According to Ashton & Ashton (1993), a term of ecotourism was first mentioned in a literature by Miller (1978) and then it found its way into the concept of sustainable development. From this perspective, ecotourism is environment-minded and sustainable tourism, which might include nature-based tourism. A study that explicitly considers the development of this opinion is an investigation by Wilson (1992) who uses a consumer approach to nature. He identifies ecotourism as a branch of more recent nature-based tourism, along with adventure tourism, without defining one of these ideas in detail. In this context, ecotourism is the more recent and more refined version of nature-based tourism, with little emphasis on resource conservation or reducing the environmental impacts. These two different ecotourism visions and also other combinations appear in the literature. In particular, the Government of South Australia (2003) defines three concepts as follows. Sustainable tourism is a profitable tourism. It is a drive to make every tourism business and tourists ecological and culturally sensitive by building environmental and cultural awareness and practice into all aspects of travel products and its consumption that is Sustainable General in Tourism. Nature-based tourism is an activity or experience of sustainable tourism related to the natural environment, whether for relaxation, discovery or adventure. Ecotourism is a nature-based segment in which the main motivation is learning, appreciation, and

conservation. It is specialized, low capacity, discrete, educational, conservation-minded, and returns the tangible benefits to local communities or natural resources.

Several other researches in several countries as conducted by Ziffer (1989); Ingram and Durst (1987); Brandon, 1996; Bissix&Kilcollins, 1999; Government of South Australia, 2003; Dunkley, 2016, state that the problem of natural tourism is not only about how to package the natural beauty into an object that may increase people's income, but it also has potential to lead to an increase in conservation and ecological projects related to natural areas and to give income opportunities for the rural communities. On the one hand, well-managed nature tourism will increase people's income, and on the other hand there is the possibility of ecosystem and ecological damage.

### **III RESEARCH METHODOLOGY**

This research uses a combination of secondary and primary data. Secondary data is used to support the descriptive analysis on socio-economic conditions of the nature-based tourism characteristics in Central Java Province. Primary data is obtained through focused discussions with informant respondents having information related to the problem. The respondents are selected purposively using the judgment sampling method, which is purposely taking samples of certain people who can give information related to the problem. The SWOT analysis used in this study is conducted to identify various factors systematically in formulating a strategy (Rangkuti, 2009). The analysis step is conducted in several steps as follows. First, identifying key factors. Key factors in this research include Natural Resources (SDA), Human Resources (HR), facilities, infrastructure, regulations, and potential tourists. Second, conducting an internal environment analysis (internal factor analysis summary or IFAS) and external environment (external factor analysis summary or EFAS). The determination of various factors, the weight of each factor, and the level of importance of each factor are obtained from the results of interviews and questionnaires with people being competent in their field and adapted to any conditions in the field.

The determination of internal strategy factors is conducted as follows. First, determining the factors that are the strengths and weaknesses of ecotourism development activities in Karimunjava. Second, giving weight to each of factor in accordance with the level of importance or the level of benefits. The weight is obtained by the average of the benefit level of each factor divided by the total average of the benefit level of all factors then multiplied by 100%. The total of all weights must be 100% or 1.00. Third, calculating the rating or the suitability value for each factor based on the response of educational indicator factors to the development of ecotourism in Karimunjava (value: 5 = very appropriate, 4 = appropriate, 3 = appropriate enough, 2 = not appropriate, 1 = very inappropriate). Fourth, determining the weighted score by multiplying the weight by the rating on each factor. The determination of external strategy factors and the analysis step are conducted as the analysis step on the internal strategy factors. The next analysis step is to develop the alternative strategies for S-O, S-T, W-O, and W-T by using the SWOT matrix and determining the priority of strategy by conducting an assessment.

**Table 2: Matrix SWOT**

Internal  External	<b>Strength (S)</b> <b>Determine the internal strength factors</b>	<b>Weakness (W)</b> <b>Determine the internal weakness factors</b>
Opportunity (O) Determine the external opportunity factors	S-O Strategy (Strategy using strength to utilize opportunity)	W-O Strategy (Strategy minimizing weakness to utilize opportunity)
Threat (T) Determine the external threat factors	S-T Strategy (Strategy using strength to overcome threat)	W-T Strategy (Strategy using weakness to overcome threat)

Source: Rangkuti, 2009

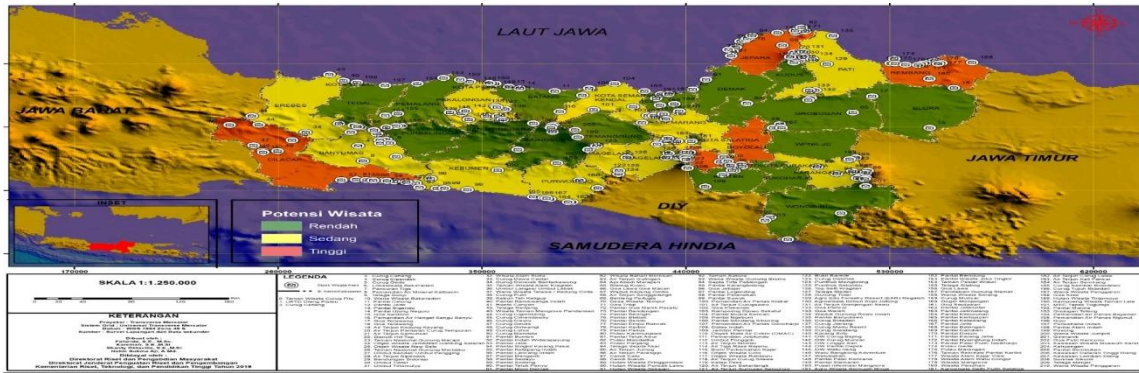
#### **IV RESULT and DISCUSSION**

The big thing required to be underlined is that the nature-based tourism aims at preserving the environment, facilitating the economic and social development of the local communities and the national economy, while simultaneously promoting the environmental awareness and the education at the local, national and international levels. The idea of nature-based tourism contributing to social and environmental benefits is famous. Today, nature-based tourism is considered as one of the most important industries in many countries and it seems to be responsible for most of the global tourism industry (Eagles, 2002; Newsome et al., 2002).

##### ***Identification of Potential Natural Tourist Attractions in Central Java Province***

The identification results of tourist attractions in 2017 show that Central Java Province has 209 nature-based tourist attractions spread all over Regencies / Cities. The government together with the community and the business world need a synergic effort for a development to manage the potential existing nature-based tourism to support the tourism sector in Central Java Province. The identification and the mapping of all aspects whether location, facilities and infrastructure, events using development funds for each tourist destination need to be programmed, measurable, and continuous. Figure 3 is a map of the potential natural tourism in Central Java in 2018, which is the identification results of the researchers.

The Regencies / cities with low potential natural tourism potential include Tegal City, Tegal Regency, Pemalang Regency, Purbalingga Regency, Batang Regency, Banjarnegara Regency, Wonosobo Regency, Temanggung Regency, Semarang City, Demak Regency, Kudus Regency, Grobogan Regency, Blora Regency, Blora Regency, Magelang Regency, Surakarta City, Klaten Regency, Sukoharjo Regency, Wonogiri Regency. By identifying the regions having low potential nature-based tourism, the planning and development can be developed to be able to maximize the existing nature-based tourist attractions so that they may increase the tourist visits



**Figure 3:**Map of Potential Nature-Based Tourism in Central Java in 2018

The Regencies / Cities having moderate potential nature-based tourism include Brebes Regency, Banyumas Regency, Kebumen Regency, Pekalongan City, Pekalongan Regency, Kendal Regency, Semarang Regency, Magelang Regency, Purworejo Regency, Karanganyar Regency, and Pati Regency. Then the planning and development can be prepared to be able to maximize the existing potential nature-based tourism to increase the tourist visits. While the Regencies / Cities having high potential nature-based tourism include Cilacap Regency, Jepara Regency, Rembang Regency, and Boyolali Regency, which are dominated by the regions directly adjacent to the Java Sea and the Indian Ocean so that they have the potential nature-based tourism those are beaches.

**Development Strategy of Nature-Based Tourism in Central Java**

The results of the IFAS matrix analysis, the total score of weighted average of the IFAS matrix is 1.11, which consists of the total weight value of the strength average score of 1.81 and a weakness of 0.70. This shows that the internal position of nature-based tourism is higher than its external position, with the weighted average of the EFAS of 0.56 that consists of the opportunity score of 1.73 and the threat score of 1.18. as a whole from the internal side, the strength score is still above the weakness score and on the external side the weighted average score of the opportunity is still greater than the threat score.

**Table 3:**Calculation of Internal Strategy Factors of Nature-Based Tourist Attractions in Central Java

	<b>Internal Strategy Factors</b>	<b>Weight</b>	<b>Rating</b>	<b>Score</b>
<b>Strengths:</b>				
A	Magnitude of potential nature-based tourism in Central Java	0.08	4	0.31
B	Nature-based tourism in Central Java has strategic location	0.08	3.6	0.28
C	Ticket price is affordable by tourists	0.07	4	0.26
D	Spacious and shady parking area	0.07	3.4	0.23
E	Community's hospitality to visitors	0.07	4	0.30
F	Nature-based tourism in Central Java has culinary places	0.07	3.2	0.22
G	Tourism location is close to souvenir places as shopping centers	0.07	3.2	0.22
<b>TOTAL SCORE OF STRENGTH</b>				<b>1.81</b>
H	<b>Weaknesses:</b>	0.07	2	0.13

	<b>Internal Strategy Factors</b>	<b>Weight</b>	<b>Rating</b>	<b>Score</b>
	Lack of promotion of nature-based tourist attractions in Central Java Province			
I	Lack of professional workers (expert in tourism)	0.07	1	0.07
J	Development program is still simple	0.08	1.4	0.11
K	Limited management budget allocation	0.08	1.4	0.11
L	Lack of safety around tourism location	0.06	1.6	0.10
M	Lack of cleanliness around tourism location	0.07	1.2	0.08
N	Tourism sectors in Regencies and Cities in Central Java are still far from main market of tourists	0.07	1.2	0.09
<b>TOTAL SCORE OF WEAKNESSES</b>				<b>0.70</b>

Source: Primary Data Processed in 2019

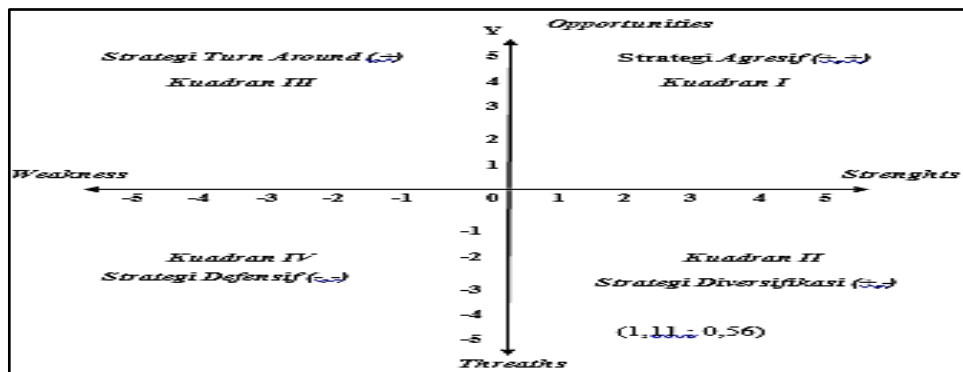
**Table 4:** Calculation of External Strategy Factors of Nature-Based Tourist Attractions in Central Java

	<b>External Strategy Factors</b>	<b>Weight</b>	<b>Rating</b>	<b>Score</b>
<b>Opportunities :</b>				
A	High investment level in tourism sector in Central Java Province	0.09	3.6	0.33
B	Regional autonomy has impact on freedom of tourism development and promotion	0.10	3.6	0.35
C	Product innovation and tourist attractions	0.11	3.6	0.40
D	Easy and affordable accessibility	0.11	2.6	0.27
E	Cooperation with related OPD and private parties in natural tourism development	0.11	3.4	0.37
<b>TOTAL SCORE OF OPPORTUNITIES</b>				<b>1.73</b>
<b>Threats :</b>				
F	Increasing development of number of nature-based tourism leads to greater competitiveness	0.11	2.4	0.26
G	Distance among nature-based tourist attractions tends to be far from one another	0.10	2.4	0.24
H	Lack of public transports reaching location of nature-based tourist attractions that are far from central Regencies / Cities in Central Java	0.09	2.8	0.24
I	Tourist awareness in taking care of environment around nature-based tourism is still low	0.09	2.6	0.25
J	Environmental damage due to high development of nature-based tourist attractions	0.09	2	0.18
<b>TOTAL SCORE OF THREATS</b>				<b>1.18</b>

Source: Primary Data Processed in 2019

The recapitulation results of calculation show that the value of internal factors is positive. It shows that the strength factors of nature-based tourist attractions in Central Java Province are still dominant compared to the

weakness factors. The same thing also occurs in the results of opportunity and threat factors, in which the value of opportunity factors is greater than the value of threat factors. The final value of internal and external factors above will then be used to determine the position of the quadrant through the Grand Strategy Matrix



**Figure 3:** Grand Strategy Matrix of Nature-Based Tourism in Central Java in 2018

As a whole, the realization of aggressive strategy (of growth) based on the identification of IFAS and EFAS matrix is as follows.

**SO Strategy:**

1. Supports for promotional facilities at the main transportation route points and the Java trans highway. The information is easy to understand by the foreign tourists at ports and airports. The promotional innovation via website and social media is informative and detailed on the events, the way to reach the tourism destination, and the attractions offered.
2. Communication-based promotion, which is inviting the tourism conscious community to give information about the natural beauty at the tourism sites, and to persuasively invite them to protect the nature to be the sustainable nature-based tourism sites.
3. Cooperation between the related local government and the private parties to be able to develop the nature-based tourism such as adding facilities and interesting tourist attractions so that the tourists feel comfortable to travel in Central Java.
4. Structured promotion through cooperation between the central government and the local government, the tourism businessmen and the social communities around the tourism sites.

**WO Strategy:**

1. Utilizing the information technology and social media (Instagram, twitter, blogger, and facebook) and also inviting the Genpi (Generasi Pesona Indonesia) members in each Regency to introduce more the nature-based tourism in Central Java.
2. The persuasive efforts of the government and the managers of nature-based tourist attractions to suggest and invite the tourist to maintain the cleanliness in the tourism location and the surrounding environment.
3. The procurement of public facilities such as trash can, prayer room, lighting and direction to the tourism location, and the effort to manage public facilities to keep clean and maintained.
4. Additional allocation for fund sources and investment to develop the nature-based tourism.
5. Increasing the number of visits by increasing the tourist attractions while still considering the natural conservation.



6. Encouraging the society to always behave “having together” to the nature-based tourist attractions existing close to their residence so that the safety can be increased because the society also maintain and practice the S3 movement (smile, courteous, polite).
7. Increasing the community-based efforts by training and the ease in business permit around the tourism sites to increase the community’s economy.

***ST Strategy:***

1. Offering inter-regional tour packages through close inter-regional cooperation.
2. Encouraging synergy among the tourist destination managers, culinary businessmen, transport service businessmen, and accommodation businessmen with the community around the tourism sites.
3. The government of Central Java Province through the Department of Transportation and cooperate with the government of Regencies/Cities hold a mapping of public transports necessity to the tourist sites and prepare the infrastructure to support the existence of public transports directly reaching the nature-based tourism sites.
4. The operational regional expansion of Trans Jateng and Tour Bus also needs to be conducted in other regencies/cities besides Semarang City and Semarang Regency because many nature-based tourist attractions are found in Regency areas and many of them have not been access to the public transportation so that this decrease the tourists’ interest.

***WT Strategy:***

1. Maximizing the promotion of the leading nature-based tourist attractions in each Regency/City by raising a special theme and making an interesting design to be distributed in the form of billboards, pamphlets, or social media.
2. Holding international-scaled events in the tourist site areas.
3. Repairing environmentally friendly facilities and infrastructure.
4. Conducting training to the environmentally conscious tourism actors in the tourist areas. The government and its stakeholders greatly and effectively promote via media about the cleanliness of tourism environment.
5. Preparing the blue print of tourist area establishment and its surroundings by prioritizing the natural and environmental preservation.
6. The formal and informal education supporting the quality improvement of human resources involving in the tourism activities, such as English course for tourism, a delivery on conservation to the tourism business actors, and a subject of disasters in tourism environment.

## **V CONCLUSION**

The results of research state that the tourism development strategy needs to be conducted synergistically and sustainably that involves the central government, the local government, the tourism business actors, and the community. One structured effort that can be used to maintain the continuity of the ecosystem of nature-based tourism sites, tourism business actors, and the government is to implement a strategy to improve the quality of human resources. Improving the quality of human resources is one of the keys to improve the quality of tourism growth in Central Java.

The increased development of tourism sector creates direct and indirect benefits for the community. The investment conducted in the tourism sector will bring benefits to the community not only to increase their condition. Among direct capital injections, the benefits for the community may also include improving the local health care, increasing the educational opportunities, and providing greater opportunities to reinvest direct finance in local initiatives for preserving the local environmental facilities that become tourism objects.

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