



# Penta Helix Model to Develop Ecotourism: Empowering the Community for Economic and Ecological Sustainability



Sri Widowati <sup>a</sup>, Gede Ginaya <sup>b</sup>, Ni Nyoman Triyuni <sup>c</sup>

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## Correspondence Author <sup>a</sup>



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## Abstract

Tamansari village, which is located at the foot of Mount Ijen, can be a new tourist alternative in Banyuwangi, East Java. The existence of the village with its potential is one of the pilot villages in the Mount Ijen area and is expected to increase sales value and be integrated with the Tourist Information Center (TIC) of Banyuwangi District Tourism. The fact that the Banyuwangi Regency Government and BCA, one of the major banks in Indonesia has collaborated in developing this Tamansari tourism village, so helix collaborates to actively provide assistance to the community has taken place in order to be able to further develop the potential of Taman Sari village. This qualitative study aims at investigating the role of collaborative stakeholders of the local governments, entrepreneurs, the academicians, the media, and the community in the development of Tamansari village ecotourism. The data is obtained through participatory observation, in-depth interviews, and document studies. The study reveals that the development of Tamansari village ecotourism requires the involvement of five parties to accelerate its maximum development as synergizing stakeholders can lead the community to achieve the goal of developing the potential of agritourism in Tamansari village.

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<sup>a</sup> Politeknik Negeri Bali, Indonesia

<sup>b</sup> Politeknik Negeri Bali, Indonesia

<sup>c</sup> Politeknik Negeri Bali, Indonesia

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## 1. Introduction

Ecotourism develops as one of the potential industries for the benefit of sustainable development is a national and even international issue. Ecotourism has a specialty, namely promoting environmental conservation, environmental education, cultural conservation enhancing the economy of local residents (Forestell, 1993; Ladkin, 2000; Buckley, 2000; Hughes, 2001; Tepelus & Cordoba, 2005; Linsheng & Ting, 2007; Arida, 2009). The implementation of ecotourism basically preserves the flora and fauna, preserves the environment so that a balance between human life and nature occurs (Pickel-Chevalier & Ketut Budarma, 2016; Pérez *et al.*, 2018; Budarma & Suarta, 2017; Mudana *et al.*, 2018; Ginaya, 2018; Astuti *et al.*, 2018; Astuti *et al.*, 2019, Triyuni *et al.*, 2019; Ginaya *et al.*, 2019). Law Number 5 of 1990, concerning Conservation of Biological Resources and their Ecosystems, expressly stated that biological natural resources and their ecosystem are the most important part of natural resources which consist of animal nature, plant-based nature or in the form of natural phenomena, both individually and jointly having functions and benefits as forming elements of the environment, whose presence cannot be replaced. Considering that it cannot be replaced and has an important position and role for human life, the efforts to conserve biological natural resources and their ecosystem are the absolute obligations of each generation. Referring to this, the Minister of Home Affairs Regulation No. 33 of 2009 concerning Guidelines for the Development of Ecotourism in the region considers two main issues, namely (1) that ecotourism is the potential of natural resources, the environment, as well as the uniqueness of nature and culture, which can be one of the leading sectors areas that have not been optimally developed, (2) that in order to develop ecotourism in the area optimally it is necessary planning strategy, utilization, control, institutional strengthening, and community empowerment by paying attention to social rules, economics, ecology, and involving stakeholders.

Banyuwangi Regency is one part of the Regency in East Java Province, Indonesia that participates in accelerating local economic growth through the tourism industry. It is evident that Banyuwangi Regency managed to carve out a proud achievement for the world of Indonesian tourism. The district, nicknamed 'The Sunrise of Java', won an award from the United Nations (UN) tourism affairs agency or UNWTO at the 12th UNWTO Awards Forum held in Madrid, Spain in 2016. The UNWTO Awards which is nominated to Banyuwangi Regency is for Excellence and Innovation in Tourism in the category of Public Policy Innovation and Governance. Banyuwangi Regency has an attraction in the tourism sector which is more dominant namely natural tourism, namely, forest area covering 31.72% while rice fields cover 11.44% of the total land area. Therefore, tourism development in this region is environmentally and culturally insightful as well as a form of conservation. One of the villages in district Licin, Banyuwangi which is developing tourism village is Tamansari village. This tourism village is a worthy and suitable new tourist destination included in the tourists' holiday plan due to its great potential. Additionally, this village has become one of the pilot villages in the area of Gunung Ijen, Banyuwangi which is hoped that the local government can increase sales value and be integrated with the Tourist Information Center (TIC) in Banyuwangi District.

Practical recommendations regarding marketing strategies for Tamansari eco-tourism and to reach the target marketing strategy, tourism promotion continues to be intensified. For marketing strategy (Ginaya *et al.*, 2019) using the DOT (Destination, Original, and Time) approach, promotion strategy with BAS (Branding, Advertising, and Selling), and media strategy with the POSE approach, especially in the main market. For that, it is needed the right formula to formulate a marketing strategy in Tamansari eco-tourism by cooperating with ABCGM (academic, business, community, government, media) Penta helix elements. In order to get input, ideas to become a formula that will later be used to market Tamansari eco-tourism, all of the tourism stakeholders are hand in hand, especially the Penta helix elements involved in agencies or institutions,

industry or business, associations, academics, communities, and media involved in the field of tourism marketing (Carayannis *et al.*, 2012). The element of Penta helix is joined together to capture input and ideas about tourism development in Tamansari eco-tourism. It is also expected in order to produce recommendations and guidelines for a comprehensive and applicable eco-tourism marketing strategy. Consideration of all aspects is very important, to build a tourism area, therefore, since it has been first designed, the strength side could be seen (Afonso *et al.*, 2010).

Based on the potential of Banyuwangi as Indonesia's developing tourist destination has tremendous potential for natural beauty, unique culture and friendly nature of indigenous people has gained recognition from tourists who have visited the tourist objects in the area. Furthermore, the development of sustainable tourism is a concept of tourism development that focuses on the sustainability of natural or environmental resources, socio-cultural life, and economic benefits (McIntyre, 1993; Liu, 2003; Richards & Hall, 2003; Choi & Sirikaya, 2005). Sustainable Tourism (Bramwell & Lane, 1993; Ritchie & Crouch, 2003; Amerta *et al.*, 2017; 2018), has a characteristic by focusing on the preservation of natural and cultural heritage and traditions of local communities by reducing the intensive and mass context, especially for natural and cultural tourism objects, reducing the negative impacts caused in relation to tourism development, and empowering local communities to enhance the degree and social life and culture to improve the quality and living standards of local communities. The Indonesian Ministry of Tourism (Ginaya *et al.*, 2019), in particular, on behalf of supporting the development of Sustainable tourism has created three direct action efforts, namely Sustainable Tourism Development, Sustainable Tourism Observatory, and Sustainable Tourism Certification. The Tourism Ministry emphasized to create a perfect Sustainable Tourism if it has fulfilled the 4 Aspects contained in the concept of Sustainable Tourism. First, Sustainability in the economic field provides benefits not only for now but also for the long term. Second, ecological sustainability; a development that is in accordance with the maintenance of the core of ecological, biodiversity and biological resources processes. Third, improve community control over changes in cultural values and strengthen community identity. Finally, the design benefits for local people and increase income for the surrounding community.

Ecotourism is part of the Sustainable Tourism Concept (Welford & Ytterhus, 1998). The need for Ecotourism is needed early because there is a change in asking foreign tourists to travel. Now, foreign tourists prefer tourism trips that have close contact with the destination's indigenous people (Peeters & Schouten, 2006; Kelly *et al.*, 2007; Ke, 2012; Linzan *et al.*, (2018). Lee (2001), stated that Ecotourism is a concept of sustainable tourism development that aims to support environmental conservation (natural and cultural) efforts and increase community participation in its management. According to Gosling *et al.*, (2005), Ecotourism has three special characteristics including, Ecotourism focuses on tourist attractions with an insight into the natural environment, Products from ecotourism are a combination of Ecotourists and natural environment with natural concepts including adventure activities, and Ecotourism must be sustainable. The same thing was expressed by Wallace & Russell (2004), emphasized that the environment contributed a lot to the growth of the tourism industry in the future. Schianetz & Kavanagh (2008), raises an example of the use of mangroves as one of the ecotourism destinations in Sundarbans. Through this model of ecotourism, it is expected that many tourism players will be more aware of the environment and nature conservation. The idea in this model tells about Sustainable Environment Mangrove as one of the examples of ecosystems. Based on the research it can be drawn a conclusion, that Ecotourism is one form of future tourism in order to create a sustainable environment especially towards the environment, socio-culture and economy in the destination area.

This research was conducted considering that Tamansari Village is one of the buffer villages of the Ijen Crater area and is one of the villages as access to the Ijen Crater Area. Has the potential of natural resources, namely all plantations (coffee, cloves, rubber), cultural heritage and tourism objects in Tamansari Village. This strategic asset can be a competitive asset in tourism development, but because the management of village resources is limited. So that economic development is almost difficult if it only relies on the ability of the village to develop itself. Conditions like this require encouragement and concern from various external parties, especially the Central and Regional Governments, businesses, academics. As a matter of fact, tourism potential is as an attraction, uniqueness, strength, and ability possessed by an object that has the possibility to develop something that becomes actual or real.

## 2. Materials and Methods

### *Research Design*

The design of this study begins with observations in Tamansari Village as a result of qualitative data which is then described. Identifying ecotourism potential in the form of qualitative data, then scoring is made to determine potential. This data is made quantitative to facilitate researchers in measuring problems. Thus, the method used in this study is a combination of qualitative and quantitative.

### *Research Location*

This research was conducted in Tamansari Village, Banyuwangi Regency, East Java. Precisely as one of the buffer villages in the Ijen Crater Nature Park. The distance to reach the location, the distance from Banyuwangi city is 37 Km. The choice of location of this research is based on certain considerations, namely: (1) Tamansari Village is an access point to the Ijen Crater Area. (2) Tamansari village is the center of the plantation. (3) Tamansari village is a historic village because some relics are in this village. (4) Banyuwangi District Government Support is recommended from the board of KSPN (national tourism strategic area) and BKSDA (natural resource conservation agency) of the Banyuwangi region and direct support from the Head of the Tamansari Village.

### *Types and Data Sources*

#### *Data Types*

The type of data used in this study is qualitative data and quantitative data (Sugiyono, 2014). The qualitative data of this study are in the form of tourism object data records, accessibility data, respondent's actions, documents, general description of Tamansari Village, research location. The quantitative data of this study are in the form of statistics, data measured or calculated directly on Tamansari village.

#### *Data Sources*

Sources of data in this study are primary data and secondary data. The source of primary data was obtained from the location sources of the research in the form of observations and identification of the tourism potential of Tamansari Village. Secondary data sources were obtained from other people in the form of official documentation and document files from the Banyuwangi District Tourism Office, Banyuwangi Regency Central Bureau of Statistics (BPS), Natural Resources Conservation Agency (BKSDA) and from Tamansari village.

### *Data Collection Methods*

#### *Observation*

Direct observations are made to find out and provide a direct understanding of a number of conditions. The results of the survey with the aspects studied in Tamansari Village included physical conditions, tourism objects, economy, social, community culture, accessibility to locations, basic facilities and infrastructure, as well as policies and institutions, observing the activities of the Tamansari village community, observing the activities of village communities suitable for ecotourism include: (1) plantation activities: rubber, cloves, coffee, agriculture (2) empowerment activities: sulfur commodities processed by location, technology, and marketing. (3) conservation activities: regulations for determining conservation areas, community understanding of conservation. (4) community activities that support ecotourism: location, rural natural potential, supporting facilities and infrastructure, community understanding, and support from the village government.

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## Questionnaire

Questionnaire for the public and foreign and domestic tourists, to know that Tamansari Village will be developed by community-based ecotourism and as a tourist destination village (stopover village) for tourists who want to climb or descend from Mount Ijen. What is the hope of the community with the potential of the Village that exists, as well as what tourists hope to visit Tamansari Village with the potential they already know.

### *Population, Samples and Research Instruments*

#### *Research Population*

Hammond & Wellington (2012), state that the population is that all group members are the target of conclusions from the final results of a study. According to Sugiyono (2008) Population is a region of generalization consisting of objects and subjects that have certain qualities and characteristics. The population in this study were tourists who visited Tamansari village and the entire community of Tamansari village and tourism object data.

#### *Research Samples*

According to Bungin (2001), the sample is a portion of the number and characteristics possessed by the population. The samples in this study are:

1) Travelers

The sampling of tourists in this study was chosen based on the accidental sampling technique. This technique is used because the respondents surveyed come from a population that is not clear (tourists who visit are not recorded according to their identity). Determination of the number of samples in this study based on the ideal ratio of the adequacy of data for analysis of perceptions and development strategies, namely the required sample size between 50 and 100 samples (Dennis, 2006). With the above criteria, this study uses 50 tourists as samples so that it has been considered feasible to be analyzed by perception analysis. The respondents of this study included a number of foreign tourists and some archipelago tourists.

2) Tamansari Village Community

According to Bungin (2001), determination of sampling if less than 100 should be taken all until the research is a population study. If the number of large subjects can be taken between 10-15% or 20-55%. The population of Tamansari Village only has 2 RWs and 10 RTs. Each RT has 20 households, so there are 200 households. Given a large number of samples so that this study took a sample of 15%, namely only 30 families. This sample is intended to analyze community perceptions with the development of community-based ecotourism in Tamansari Village, what is the hope of the community with the potential of the Village.

#### *Data Analysis*

To get an analysis of the potential of Tamansari Village carried out by identifying the tourism potential of Tamansari village using description analysis techniques, and the response of the community and tourists to be measured using the Likert's scale. As for measuring it using variable as follows:

- 1) The aspect of tourist attraction aims to find out the potential of aspects of tourist attraction (ecotourism potential) in Tamansari village, carried out by descriptive and scoring statistical methods. The results of this analysis are in the form of descriptions, carried out using 7 variables.
- 2) The social aspect aims to determine the community potential in Tamansari Village, carried out by descriptive and scoring statistical methods, using 4 variables.
- 3) The management aspect aims to determine the management aspects of tourism activities in Tamansari Village related to the development of community-based ecotourism in the region, which is carried out by descriptive statistical methods to describe the potential. Analysis of tourism management aspects is carried out in 3 variables.



- 4) The aspect of community empowerment aims to find out aspects of community empowerment in Tamansari village. To give a score on the potential of ecotourism in Tamansari village that is assessed, it can be averaged by the following formula:

$$PE = [P. 1 (\text{score}) \times B 1] + [P. 2 (\text{score}) \times B 2] + [P. 3 (\text{score}) \times B 3].$$

Description: PE = Ecotourism Potential

P1 = Principle 1, and B1 = weighting factor for that principle.

### 3. Results and Discussions

This study attempts to analyze the qualitative data from the answer to the research question from the whole observation, in-depth interview, and literature review of implementing Penta helix synergy in developing Tamansari tourism village. The research questions in this study were concerned about how the synergy of five elements of ABCGM is able to be implemented as a model for developing the Tamansari tourism village. Currently, this tourism model continues to be developed 3A (access, attractions, and amenities). The three elements must go hand in hand with promotion. This model is very important to be carried out as part of a series of marketing target compilation activities in Banyuwangi Regency priority destinations that have been set by the government through the country Tourism Ministry which is referred to as Tamansari Ecotourism Destination.

#### 3.1 The Potential Assessment of Tamansari Ecotourism Destination

Ijen Crater is a crater that has high acidity in the world. It has 300-500 meters high caldera wall with an area of 5,466 hectares. Ijen Crater has a unique natural phenomenon in the form of blue fire, which can only be seen in the early hours of the night. Usually, visitors will start climbing around 01.00 WIB to be able to watch the blue flame that appears at the base of the crater wall. Tourists can enjoy this rare phenomenon, which only has two in the world, Indonesia and Iceland. Not only that, but tourists can also see the activity of sulfur miners in the area during the day. This area is the target of tourists during a long holiday. Thousands of tourists seem to be thronging the Paltuding area, which is the starting point of the mountain climbing which has an altitude of 2,443 meters above sea level. Paltuding which is the foot of Mount Ijen is in the Licin District, Banyuwangi. Management of this area is under the auspices of the Ijen BKSDA (Natural Resources Conservation Center) in the Banyuwangi region.



Figure 1. The marvelous view of Ijen Crater  
Documentation: [Sri Widowati, 2018](#)

Tamansari Tourism Village consists of various potentials in the local village known as the Miners Village, Kampung Bunga and Kampung Susu which are integrated into one in order to optimize prestige as a tourist village. Besides benefiting from its geographical location in the area of Gunung Ijen Nature Tourism Park, Tamansari Village itself does have potential that can be developed to support the tourism sector.



Figure 2. Activities of mining in Mt. Ijen  
Documentation: [Sri Widowati, 2018](#)

Tamansari village is only about 24 km from the city of Banyuwangi, and its position is in the midst of a trip to Ijen Crater, making it a strategic destination for a stopover. Therefore, Tamansari is also positioned as the rest area of Mount Ijen. Tourists who will climb Ijen Crater or after going home can take a moment to stop at Tamansari Tourism Village while enjoying the beautiful natural beauty, taste the variety of Osing tribal cuisine, feel the hospitality of the locals and shop for souvenirs from Banyuwangi. Moreover, at this location, there are also supporting facilities such as the tourism information room.



Figure 3. The ecotourism area of Ijen Crater  
Documentation: [Sri Widowati, 2018](#)

In 2015 Tamansari Village was once used as a venue for Ijen Banyuwangi Jazz. The event which took place in Jambu Hamlet was lively and attended by spectators who came straight from Banyuwangi and outside the city and climbers who had just come down from Ijen Crater. This shows Tamansari village as a place to stay, it is quite strategic. Table 1 shows the potential of Tamansari village to developed as ecotourism based on the result of data analysis.

Table 1  
Ecotourism potential assessment in Tamansari village based on attraction aspects

Variable	Average	Value Weight	Category
Tourist Attraction	0.88	7.00	Very potential
Number of Tourism Objects	0.75	6.00	Very potential
Tradition or Culture	1.00	8.00	Very potential
Accessibility	0.63	5.00	Very potential
Transportation Provider	1.00	8.00	Very potential
Culinary	0.50	4.00	Very potential
Accommodation	0.38	3.00	Potential
Supporting Infrastructure	1.13	9.00	Potential

So far, Tamansari village, which is a plantation area, is known to be quite potential because it is known as a producer of rubber, cloves, coffee, and chocolate, and there is also a variety of flora and fauna found in Ijen Crater. In this village, there is the Dadi Mulyo Cooperative which manages dairy farmers. The farmers in this village have received guidance from PT Nestle and its marketing cooperation. Of the many dairy farmers here, it is not surprising that Tamansari is also known as Kampung Susu.



Figure 4. The cabbage plantation at Tamansari village  
Documentation: [Sri Widowati, 2018](#)

As a matter of fact, the name Tamansari itself turned out to have a pretty interesting background. That is a legacy of the Dutch colonial era about 128 years ago. At that time there was a Dutchman who lived in Tamansari, precisely in the Krajan Hamlet, which was named Tuan Van Ort Lander or the local community was more familiar to call him as Tuan Pancur. Mr. Pancur then married a local woman named Astiyah. After marrying Mr. Pancur, this woman was better known as Mrs. Mince. The name Tamansari was apparently taken from a park that was used as a place of lodging owned by Tuan Pancur who was in Krajan Hamlet, which is only 200 meters from the office of the Head of Tamansari Village now. One proof of Mr. Pancur's whereabouts can be known from the ruins of his house and tomb in Tamansari Village. This shows that the Tamansari region has long been known as a place to live at once while having tourism potential. The Dutch are known to love the mountainous region as a comfortable place to live. And now, tourism potential in Tamansari Village is being rebuilt by the Banyuwangi Regency Government. Table 2 shows that the potential of Tamansari developed to be ecotourism in the term of the community aspect based on the result of data analysis.

Table 2  
Ecotourism potential assessment in Tamansari-based village community aspect

Variable	Average	Value Weight	Category
Community Character,	0.30	15.00	Potential
Forms of Community Participation,	0.30	15.00	Potential
Quality of Tourism	0.20	10.00	Less potential
Community Readiness	0.20	10.00	Less potential

The Penta helix element is complete with the presence of the five parties, such as the government is represented by the Tourism Office of the Banyuwangi Regency, the element of the business is represented by Bank Central Asia (BCA) one of the major Bank in Indonesia including the association of GIPI, PHRI, ASITA, the elements of academic and media Pancasila University and national media. The elements of Penta helix are joined together to capture input and ideas about tourism development in Tamansari Tourism Village. The synergic cooperation of the parties in the Penta helix model is hoped to produce a comprehensive and applicable recommendation or guideline for the development of Tamansari ecotourism marketing strategy. The focus group discussion (FGD) is regularly held within the elements of Penta helix as efforts to boost



Tamansari Ecotourism Destination must indeed be through monitoring and evaluation. And that, there must be synergy from all parties. Consideration of all aspects is very important, to build a tourism area. Because of that, since it is first designed, it has the vision of strength side. Data on tourists both domestic and foreign entering Tamansari Ecotourism Destination can be used as an indicator to make tourism development a success factor. In order to achieve this target, the element of Penta helix has to work hand in hand to support Tamansari Ecotourism Destination. Furthermore, an assessment of competitiveness, the readiness of the Tamansari Ecotourism Destination quantitatively must be conducted. This must be done to be able to pass the tourism development targets. A motto of “Go forward simultaneously in the concept of Tamansari tourism village Incorporated through monitoring and evaluation must be carried out to win the competition”. Table 3 shows the Tamansari ecotourism Penta helix model in the aspects of managerial and community empowerment based on the result of the data analysis.

Table 3  
Ecotourism potential assessment in Tamansari-based village management aspects

Variable	Average	Value Weight	Category
Transparency	0.60	30.00	Very potential
Government Program Policies	0.40	20.00	Potential
Organizing Agency	0.40	20.00	Potential
The role of the community	0.30	15.00	Less Potential
Form of empowerment activities	0.30	15.00	Less Potential

### 3.2 Tourist Attraction Aspects

This research was conducted using 8 variables, namely tourist attractions, accessibility, transportation providers, culinary availability, accommodation, environmental conditions, supporting infrastructure, and supporting facilities for tourism activities. To assess tourist attractions, 3 indicators are used, namely the type of attractive tourist attraction, a number of tourist attractions, and local traditions/culture that is still maintained. The natural scenery is a type of tourist attraction in the whole village of Tamansari with a natural panorama of *ireng* terraces, plantations on the slopes of Mount Ijen. In addition, 49.3% of respondents stated that the recreation area is an attractive type of tourist attraction, such as views of waterfalls, Kaligondo river, coffee plantations, clove and rubber plantations, and village mappings such as Belerang village, flower village and milk village. Even more extreme natural scenery is the activity of the community conducting sulfur mining carried out on the slopes of the Mount Ijen caldera during the day.



Figure 5. The green vegetation of Tamansari village  
Documentation: [Sri Widowati, 2018](#)

Banyuwangi Regency Government has introduced Cocoa Hamlet in various ways. This Chocolate Village will add an alternative tourist attraction for tourists, in Tamansari village. That is to be made as one of the locations for the start of the Tour de Ijen activity which is held every year, with participants participating in hundreds of racers from 18 countries. The uniqueness of this village captivates bicycle enthusiasts and drivers who join in the fast-paced tour of Ijen Banyuwangi.

The people of Tamansari Village are still classified as traditional who still hold the tradition of the grandmother of Monyang. This can be seen in the results of the questionnaire obtained by respondents by 37.2%. Traditions that have been handed down from generation to generation, such as there are still a number of traditional ceremonies and arts in the area that are preserved and still held lifting local wisdom that lives in the community, one of which is the tradition of drinking coffee using the Banyuwangi tribe. This folk tradition was raised at the Festival of "Ewu Coffee" with the slogan "*sak sot dadi sak duluran*" meaning one brew we can make brotherhood. which was held along the road in Tamansari village. Residents of Tamansari village came to thousands of guests during the Festival "Ewu's Coffee copy". They were all warmly welcomed in the courtyard of the entire village. Thousands of cups of coffee and traditional snacks are offered free of charge to all who come. It is fitting for local governments to continue to preserve this good culture. "This festival is also part of an effort to maintain a spirit of mutual cooperation. People are willing to offer free coffee and food for everyone, even those who are not yet known. Although it seems simple this method is effective for knitting unity among us.

Accessibility was assessed by distance indicators from the main Banyuwangi city road to the location of 40% of respondents and the results of observations directly to the field stated that mileage was difficult. This is due to the absence of public transportation such as "angdes", motorcycle taxis and even tourism buses. So domestic tourists use private vehicles or charter directly to paltuding, as well as foreign tourists.

As for culinary availability, 98.33% of respondents stated that Tamansari village had food stalls, which were supported by BPS (2016), data that there were 15 food stalls or food stalls scattered throughout the Rt. This food stall serves Banyuwangi specialties, this is one of the attractions that need to be developed to attract tourist visits. As for accommodation, there is a homestay, the community learns to manage this business. Environmental conditions are assessed by 4 indicators, namely the rules of Tamansari village regarding the environment, environmental sanctions, forms of environmental awareness, and economic values of the environment. A total of 69.1% of respondents stated that the most dominant rule was to maintain environmental cleanliness, but the application was not yet firm, because there were no environmental sanctions imposed in Tamansari village. The form of environmental awareness implemented in Tamansari Village is by holding regular community service. As for the economic value obtained by the community, as much as 60.83% of respondents stated that they obtained economic value from the environment, namely in the form of work, such as labor-intensive work to repair sewers and roads. The condition of clean water, electricity (telecommunications), telecommunications (signal), and sanitation in all villages is in good condition, while good road conditions are only found at 7 Rt, good drainage conditions are only found at 6 Rt, and waste conditions (waste disposal) the good is only at 4 Rt. That means 66.67%. While for the most supporting facilities, 70.83% were grocery stores and 26.55% were mosques (BPS, 2013).

Scoring analysis to determine the potential of tourism carried out on aspects of tourist attraction, which was then scored to determine the categorization of villages based on the potential of tourist attraction. Based on the results of the scoring in Tamansari village, a score (weight) of 83.24 with an average value of 4.16 was obtained which means that it has a good (potentially) category if ecotourism is developed. Referring to the weighting of the potential of Tamansari village, the community response to the development of community-based ecotourism with its potential, the results of data processing show that the community response to the development of community-based ecotourism is on average good with reference to the potential that exists in Tamansari village. Tourist attraction with an average value of 4.11 with a weight of 82.24 is categorized both as a result of responses from the public and tourists. The community understands that the village has the potential to be a place of interest for tourists to visit. Like waterfalls, coffee plantations, rubber, cocoa, and cloves historical heritage and natural scenery with the attraction of Mount Ijen.

### 3.3 Community Aspect

Analysis of social aspects is carried out using 4 variables, namely the character of the community, forms of community participation, business opportunities, and quality of tourism and community preparedness. Community characteristics are assessed by 7 indicators, namely livelihood, education level, behavior, customs, traditions, habits, and awareness of tourism potential. Based on BPS (2017), data, livelihoods in Tamansari Village are divided into 5 sectors, namely 20.20% in the industrial sector, 19.03% in the service sector,

17.80% in the agricultural sector, 17.33% in the trade sector, 4.70% in the mining sector, and the rest in other sectors.



Figure 6. The community residence in Tamansari village  
Documentation: Sri Widowati, 2018

As for the level of education in Tamansari Village, 71.67% of the last education is still in junior high school and/or below, 23.53% of the education is in senior high school, and the rest is a university. The BPS data (2017) shows that the average education in Tamansari Village still tends to be low.

Based on behavior or lifestyle, the character of society is heterogeneous. The Tamansari Village Community is very enthusiastic about tourism activities and other activities related to the development of their village and is quite concerned about their environment. But people in several other villages tend to be lazy, pessimistic, and do not care about the development of their villages. The character of the community which is quite homogeneous is its tendency to throw garbage into rivers or gutters. Community awareness of the environment is still lacking, coupled with the lack of infrastructure for waste disposal. There are no people who have spearheaded the formation of garbage banks or self-supporting waste collection, thereby reducing the amount of waste dumped into rivers or sewers.

Customs in the study area are still well preserved, as evidenced by the continuity of *yasinan* and the arrival of routine that is done once a week, and the continuation of several traditions such as regional arts, mutual cooperation, *nyadran*, *pengajian*, *muludan*, *merti hamlet*, *syukuran*, *wayang*, charity swamp, most art and often hold art performances in various regions. The dominant routine activities carried out in Tamansari Village are community meetings, social gatherings, recitals, and community forums, wherein these routine activities the community often exchanges opinions and ideas, including ideas in developing their territory. As for tourism awareness, all respondents stated that the most dominant tourist attraction in the Ijen Crater Nature Tourism area and 23.13% because it is indeed the main destination of visiting tourists.

The form of community participation is enough to understand the tourism potential in their village but is still pessimistic and passive to develop it because they do not know what to do. As many as 55.85% of respondents stated that they had participated in tourism activities, namely in the form of environmental care and culinary providers, lodging (homestay) and as many as 60.29% had participated more than 4 years. The reason for participating is divided into 3 dominant reasons, namely as a form of responsibility, as an effort to advance the village, and to make a living. The awareness of citizens to participate in tourism development is still small even though there are already some residents who have tried to do so. However, 91.67% of respondents stated that there was a micro-economic business as a form of business opportunity to support tourism activities, most of which were culinary stalls, homestays and the rest, woven from banana midrib for the tablecloth.

Travel quality is assessed by indicators of continuous visits in the region, and community readiness is assessed by analyzing how prepared the community is if the area is used as an ecotourism area. Based on the results of the questionnaire, as many as 62.81% of respondents stated that there is a continuous tourist visit in their village, which has a recreation area frequented by tourists. As for community preparedness, all respondents strongly agree if Tamansari Village is developed as community-based ecotourism. Scoring analysis was carried out on social aspects, which were then made summarized and the scoring results were used to categorize Tamansari Village based on its community potential. Based on the results of the

scoring, the score is 82.27 with an average of 4.11 so that Tamansari Village is categorized as a good community-based ecotourism village.

### *3.4 Management Aspects*

Analysis of tourism management aspects is carried out in 3 variables, namely community participation, transparency, and government policies and programs. The social level in the village of Tamansari is based on groups that dominate livelihoods in the community. That is the mining community group, with a livelihood that is mining sulfur in Ijen crater for sale to fulfill their daily needs. The community group of workers working in their livelihoods as laborers in the coffee, rubber, clove and chocolate farms. The farming community groups are livelihoods as farmers in the rice fields. Stall businessmen also expressed a role in tourism activities by 14.93% of respondents, by providing various needs of tourists, especially culinary.

Management transparency is assessed by 3 indicators, namely the benefits obtained by the community, the distribution of profits, and public complaints about tourism activities in the region. Based on the results of the questionnaire, 80% of respondents stated that the benefits obtained were in the form of efforts to advance the village economy. Nevertheless, there are still 12.31% who say they have not benefited from tourism activities. In addition, 85.83% of respondents said that there had been no contribution to their village, only 12.5% had implemented a profit-sharing system. While most complaints are the lack of involvement of the community in tourism activities in Tamansari Village.

Government policies and programs related to the development of ecotourism in Tamansari Village by utilizing the Ijen Crater Nature Park have been regulated in KSPN and BKSDA and in the Banyuwangi Regency Master Plan for Regional Tourism Development (Ripparda), but the implementation of these programs and policies has not been fully realized, because requires full involvement of the community and the totality of work from related institutions so that the implementation is more optimal and sustainable. The results of scoring analysis that has been carried out on the management aspect, namely, get a score of 84.00 with an average of 4.20, thus the category of Tamansari Village based on potential with management aspects, that is very good if developed as community-based ecotourism.

### *3.5 Aspects of Community Empowerment*

The aspect of community empowerment in this study was assessed by 3 indicators, namely the board, the role, and the form of community empowerment activities. There are several boards that have held community empowerment activities in Tamansari Village, including the Social Service, Tourism Awareness Group (Pokdarwis), PNPM BCA. The Social Service from the academic elements routinely conducts empowerment in Tamansari Village, which seeks to improve community welfare by developing the potential that exists in Tamansari Village. The forms of activities carried out include conducting information on tourism activities. Empowerment in an effort to increase food production through agriculture and plantations, and has been sufficiently developed in the village play a role in developing tourism activities to attract tourists who will climb to Mount Ijen, and the villagers become increasingly concerned and help each other in developing tourism in the village. The form of activity carried out by the Livestock Service Office is to help the development of animal husbandry tourism, namely dairy cows, thus becoming a dairy village. The Tamansari Village community tends to be open, making it easier to organize community empowerment.



Figure 7. The cow husbandry at Tamasari village  
Documentation: [Sri Widowati, 2018](#)

The results of the scoring analysis that has been done on the aspect of community empowerment, namely, get a score of 82.10 with an average value of 4.11 thus the category of Tamansari Village based on potential with aspects of community empowerment is good if developed as community-based ecotourism.

#### 4. Conclusion

Based on the results of the research and the results of the analysis presented in the result and discussion, it can be concluded that the potential of ecotourism in Tamansari Village by utilizing the Ijen Crater Nature Park has great potential to be further developed into a destination in Banyuwangi district. In accordance with the SWOT analysis and analysis of the Strategy as a support that has been carried out from the results of this study can be a magnet to attract more foreign tourists. With increasing interest in special interest tourist destinations, this tourist attraction can be an option for tourists looking for something different. Cooperation is needed with all stakeholders in Penta helix model involved in planning, promoting, managing Tamansari Village and maintaining the Ijen Crater Nature Park.

The perception of the local population on economic benefits that do not fulfill their daily needs, so that they do not guarantee the welfare of the Tamansari community, can be balanced along with running ecotourism activities. The impact of beneficial ecotourism development will be carried out together. This will strengthen the positive relationship between community perceptions of the impact of community-based ecotourism development and community attitudes towards the livelihoods that have been occupied so far.

In accordance with the conclusions above, the things that can be suggested are as follows:

- 1) The development of ecotourism in Tamansari Village must be directed, planned, referring to the results of previous research by restoring the pattern of tourism activities in accordance with the direction and initial purpose of the establishment, namely to assist communities in developing community-based ecotourism with the ultimate goal of making the community main ecotourism program, by involving village communities in every decision making related to them not just becoming workers.
- 2) The development of Tamansari ecotourism as much as possible can involve the community and local government optimally in each of the processes within it and collaborate with academics and media. This is done to provide a broad space for local communities to enjoy economic benefits from community-based ecotourism development.

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### Biography of Authors

	<p>Sri Widowati is a senior lecturer in the Tourism Department, State Polytechnic of Bali, Indonesia. Her research interests comprise destination development and eco-tourism. Her works have been published in various journals including Current Issues in Tourism and International Journal of Contemporary Hospitality Management.</p> <p><i>Email: <a href="mailto:widowati@pnb.ac.id">widowati@pnb.ac.id</a></i></p>
	<p>Gede Ginaya teaches English in the Tourism Department, State Polytechnic of Bali. He received a bachelor's degree in English language teaching from The Faculty of Education and Teacher Training Universitas Udayana, Bali (Currently is UNDIKSA Singaraja) and a master's degree in cultural studies from Universitas Udayana, Bali. His research interests include classroom-action research, cultural studies, and tourism. His works have been published in various journals including Current Issues in Tourism and International Journal of Social Sciences and Humanities.</p> <p><i>Email: <a href="mailto:ginaya@pnb.ac.id">ginaya@pnb.ac.id</a></i></p>
	<p>Ni Nyoman Triyuni is a senior lecturer in Tourism Management at the Tourism Department, Bali State Polytechnic, Indonesia. Her research interests comprise the tourist behavior, eco-tourism, and MICE. Her works have been published in various journals including Current Issues in Tourism and International Journal of Contemporary Hospitality Management.</p> <p><i>Email: <a href="mailto:triyuni@pnb.ac.id">triyuni@pnb.ac.id</a></i></p>