Community Perception of Geotourism Development in Ciletuh Palabuhanratu UNESCO Global Geopark

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Abstract

Ciletuh-Palabuhan Ratu Geopark is a protected area with a number of important geoheritage sites, and has a certain appeal and uniqueness, where it can be developed as part of an integrated concept of conservation, education and local economic growth. Since 2018 this area has been globally recognized by UNESCO, and was later named Ciletuh-Palabuhan Ratu UNESCO Global Geopark (CPUGGp). Geotourism is a kind of tourism development in a geopark, and its implementation requires local community involvement. Positive community perception would be a strong basis for them to involve in geotourism development. Therefore, this research sought to find the community perception of geotourism development in CPUGGp. Using descriptive method, questionnaire was its main instrument to collect primary data. The respondents were the residents of Tamanjaya Village, Ciomas District, Sukabumi Regency, which were chosen by applying multistage cluster sampling. The results showed that the community perception of geotourism development in their residential area was positive. A great knowledge and understanding of the geotourism development led to a high rating and made the people of Tamanjaya Village have a great will to involve in it firsthand. However, the community still needs government
assistance in its implementation. In addition, training is still needed to improve public understanding of geotourism development and to create better skills.

**Keywords**

Perception, Community, Geotourism, Geopark, CPUGGp

**Introduction**

West Java is a province of Indonesia with great tourism potentials. One of strategic tourist destinations is Ciletuh-Palabuhan Ratu in Sukabumi Regency. It is a geopark, where it can be defined as a protected area with a number of important geoheritage sites, and has a certain appeal and uniqueness, where it can be developed as part of an integrated concept of conservation, education and local economic growth (UNESCO, 2006).

The geopark is in the west of Sukabumi Regency, Indonesia. It is located on the border of the subduction zone of the Eurasian and Indo-Australian plates, i.e. a tectonic active zone that continues to coalesce at 4 mm/year. Ciletuh Geopark was named after Ciletuh River and Palabuhan Ratu. The geopark consists of 74 villages of eight districts (Cisolok, Cikakak, Palabuhan Ratu, Simpenan, Ciemas, Ciracap, Waluran, and Surade).

Ciletuh-Palabuhan Ratu has been recognized as a national geopark since December 22, 2015 and eventually a member of UNESCO Global Geoparks (UGG) through UNESCO executive board meeting in Paris, France on April 17, 2018. The recognition coincided with that of Rinjani Lombok as a UNESCO Global Geopark. The following is the logo of Ciletuh-Palabuhan Ratu UNESCO Global Geopark, hereinafter referred to as Ciletuh-PUGGp:

![Figure 1: The logo of Ciletuh-Palabuhan Ratu UNESCO Global Geopark](image)

UNESCO Global Geoparks (UGG) is a program of UNESCO as an international organization of education, science, and culture. It is an integrated geographic area where international geological sites and landscapes are managed with the concept of holistic protection, education and sustainable development through a bottom-up approach.
approach. Today there are 120 UGGs from 33 countries (Lesvos Petrified Forest Geopark, 2009).

UNESCO Global Geoparks aims at exploring, developing, and celebrating the relationship between geoheritage and all other aspects of natural, cultural, and intangible heritage. UNESCO, as the initiator of the Global Geoparks program, aims to collaborate and empower local communities to achieve the main goals: promoting geological features through sustainable tourism and improving the creativity of local communities in building their businesses. Geoparks offer local people a new opportunity to involve in the world of tourism

Ciletuh-Palabuhan Ratu UNESCO Global Geopark inherits geodiversity, biodiversity, and cultural diversity. These three heritages are the reasons why UNESCO recognized Ciletuh-Palabuhan Ratu as a global geopark. The geological wealth and uniqueness of this place make it a geological laboratory that can be visited by any geological researchers, from students to professors.

There are twenty-nine unique geosites, including Cisolok Geyser, Karang Hawu Beach, Citepus Beach, Loji Beach, Karang Bolong Beach, Citirem Beach, Pangumbahan Beach, Palangpang Beach, Ujung Genteng Peninsula, Cikarang Estuary, Karang Island, Daeu Island, Jampang Plateau, Mount Badak, Mount Beas, Legon Pandan, Batu Naga, Batu Waluran Park, Sodongparat, Pasir Luhur, Mount Sungging Cave, Lalay Cave, and Ciletuh Amphitheater (Thesis of Hanif & Herry 2018, Executive Summary Ciletuh Geopark 2019). This geological wealth is the main attraction for developing Ciletuh-PUGP into a tourist destination to bring in visitors, but while still adhering to the principles of geoconservation, education, and sustainable community economic growth.

The technical guidelines for developing a geopark as a tourism destination, which is an attachment to the Regulation of the Minister of Tourism and Creative Economy / Head of the Tourism and Creative Economy Agency Number 2/2020, states that geopark development is carried out with sustainable tourism development. Geopark development is expected to provide a stimulus to economic activity and sustainable development through geotourism development. This shows that geotourism has a critical position in the development of geoparks as a tourist destination.

In general, tourism can be defined as a person or a group of people’s temporary travel from one place to another in pursuit of pleasure and insights from the visited places. On the other hand, geotourism is a tourism concept that is different from the global concept of tourism. Geotourism is a kind of sustainable natural tourism where it focuses on the geological appearance of Earth’s face to encourage people’s understanding of culture and environment, appreciation, conservation, and concern for the preservation of local wisdom. It offers natural tourism and highlights the beauty, uniqueness, scarcity, and wonder of a natural phenomenon that is closely related to geological phenomena and described in popular or simple language (Kusumahbrata, 1999 in Hidayat, 2002). Thus, a comprehensive understanding of geotourism is needed by the people who are involved in the development of Ciletuh-
Moreover, before being recognized as a Global Geopark, the geosite has been a tourist destination with lots of visitors.

In the concept of geotourism, tourism is not merely about bringing in as many tourists as possible, but more than that, it should pay attention to many aspects: geoconservation, education, and sustainable community economic growth. The community should understand the difference in the concept of tourism so that they can have a synergy with each other in carrying out development programs because they have the same objective. Therefore, a common perception of the community, government, geopark managers, and all stakeholders is crucial in developing geotourism in Ciletuh–PUGGp.

Thus, this research seeks to reveal the perception of the people of Ciletuh–PUGGp of geotourism, which according to the regulation is an effort to develop a geopark. Perception is a stimulus sensed by humans or individuals. Senses are the link between humans and their environment. Meanwhile, Walgito (2010: 70) states that perception is a process of organizing, interpreting a stimulus received by an organism or individual to make it meaningful and is an integrated activity within the individual.

Perception is created through a series of (cognition) processes, which begins with sensing object stimuli to create an understanding of the object. It consists of attitude-forming components: cognitive, affective, and conative. Azwar (2008:24) states, cognitive component contains an individual’s beliefs and stereotypes about something, affective component is an individual’s feeling about an object of attitude and concerns emotions, and behavioral (conative) component contains a tendency to act or react to something in a certain way.

In this research, what will be measured is community perception of geotourism, which means how information about geotourism is perceived by the minds of the residents of Ciletuh–PUGGp that it gives rise to a thought of the concept. Based on this, this research seeks to find out how the community will implement their knowledge and understanding of geotourism in the development of Ciletuh–PUGGp and how they are willing to apply the concept in tourism activities that they have been doing for a long time.

Community perception is needed in a development of a region. This makes it possible to find out whether a development is good or not, successful or not, and so on. No matter how good the tourism development is, it will not be effective and efficient if it is not supported significantly by the community (Octavianti & Agustin, 2018). In this research, community perception of geotourism development as an effort to develop Ciletuh–Palabuhan Ratu UNESCO Global Geopark (CPUGGp) is defined as the understanding of the people living around the geosite of developing the concept of tourism into geotourism. This understanding will lead to perception of geotourism, including the benefits of the concept of tourism that upholds geoconservation, education, and sustainable community economic growth. This will encourage the community to act or behave in the geotourism development. The encouragement is not only based on the perception, but also community
understanding of the concept of geotourism. When the community know and understand the importance of geotourism in the development of sustainable tourism, they will have a tendency to maintain and protect geoheritage, geoculture, and geoconservation.

Based on this background, the formulation of the research problem is what is the community perception of the concept of geotourism as an effort to conserve Ciletuh-Palabuhan Ratu UNESCO Global Geopark (CPUGGp). There are three specific questions to answer in this research: (1) how deep the community knows the concept of geotourism, which is developed as an effort to develop CPUGGp? (2) how the community perceives the concept of geotourism, which is developed as an effort to develop CPUGGp? (3) how big is the public willingness to implement the concept of geotourism in the tourism management in CPUGGp?

Method

This research was conducted with descriptive quantitative method, which is a method to collect, compile, analyze, and interpret data on community perception of geotourism development as an effort to conserve Ciletuh-Palabuhan Ratu UNESCO Global Geopark (CPUGGp). It did not seek to find or describe a relationship nor test a hypothesis nor make a prediction. Therefore, quantitative is the right method to answer the research questions. This is in line with Rakhatm (2012) who states that the aim of this method is to systematically, factually, and accurately describe facts and characteristics of a particular population. In addition, based on Rakhatm on the aim of descriptive method, this research sought to collect actual information in details to describe the community knowledge, understanding, and willingness to implement the concept of geotourism. Numerous empirical studies have been conducted to evaluate local community understanding, acceptance and level of knowledge as well as awareness of issues related to conservation and sustainable development as it becomes more apparent that public acceptance and education are critical to the success of conservation and sustainable development objectives (Azmana et al., 2011).

The population of this research is the residents of Ciletuh-Palabuhan Ratu UNESCO Global Geopark in Sukabumi, West Java. In regard to sampling technique, multistage cluster sampling was used to divide the districts of Ciletuh-Palabuhan Ratu Geopark area into several clusters. Eight districts are of Ciletuh-Palabuhan Ratu Geopark area: Ciracap, Surade, Ciemas, Waluran, Simpenan, Palabuhan Ratu, Cikakak, and Cisolok. After applying multistage cluster sampling, Tamanjaya Village of Ciemas District, Sukabumi Regency, West Java was concluded as the last cluster, which was the place where the research was conducted.

The population of Tamanjaya Village was 6,531, i.e. the target population (N) of this research. Since the (N) is greater than 500, the researchers used Yamane formula to obtain the sample size (n), which would later be the respondents of this research (Riduwan, 2004). After applying error tolerance (d) of 10% or error rate (e) of 0.1 (Kriyantono, 2006), the sample size (n) of 100 participants was obtained.
The data of this research comprise primary and secondary. The primary are those related to research variables and derived from respondents. The secondary are those related to the focus of the research and derived from the documents of the relevant agencies. The primary was collected by distributing a semi-closed questionnaire to all chosen samples. Meanwhile, to collect secondary data to enrich the analysis, the researchers conducted structured face-to-face interviews with respondents based on the on-hand questionnaire. Apart from that, it was also collected by studying the documents of the relevant agencies and reviewing literature on the relevant concepts.

In accordance to the research method, i.e. descriptive, the aim of the analysis is to simplify data to make it easier to read and interpret. This process made use of statistics because one of its functions is to simplify data (Singarimbun & Effendi, 1989). Data analysis was conducted to describe, analyze, and interpret the collected data. It comprised the following steps: examining data, presenting data, and interpreting data. Before analyzing, all collected data were processed with the following steps: coding, putting the codes into the coding sheet, and supporting the data collection with a coding book.

Prior to processing and analyzing the data on community perception of geotourism development in Ciletuh-Palabuhan Ratu UNESCO Global Geopark (CPUGGp), the researchers tested the validity of each item of the questionnaire. The test was construct validity, i.e. a test to see whether the items of the research instrument are appropriate to measure a construct (Akhtar, 2018). Construct is a rated concept, which in this case the community perception of geotourism development in CPUGGp. Exploratory Factor Analysis (EFA) was used for testing the validity of the instrument as well as identifying the perception-forming factors in terms of cognitive, affective, and conative dimensions. However, in this research, the EFA was solely used for testing the validity of the research instrument.

After applying the test, some items were proven invalid and were eventually not included in the next phase of analysis. There was one invalid indicator respectively in the cognitive, affective, and psycho-motor components. In terms of cognitive, there was 1 invalid item out of 9 indicators; in terms of affective, there was 1 invalid item out of 11; and in terms of conative or tendency to act, there was 1 invalid item out of 13. The researchers eventually removed the three invalid items. This did not reduce the measurement of the research because some other items were able to represent the invalid ones.

**Results And Discussions**

At the beginning section of this chapter, the researchers are going to present the data on the characteristics of the respondents of this research. Sixty four of the respondents are male and the rest 36% are female. In terms of age, the respondents fall into five categories: 16-26 (30%); 27-37 (34%); 38-48 (19%); 49-59 (11%); and 60-70 (6%). All respondents are Muslim, and almost all of them (91%) are natives of Tamanjaya Village, Ciemas District, Sukabumi Regency with
different lengths of stay: twenty nine percent have lived in the village for less than 12 years; 28% for 13-25 years; 18% for 26-38 years; 22% for 39-51 years; and 3% for 52-63 years.

The respondents have different educational backgrounds, from not attending school to higher education. An unexpected result was found: 1% did not attend school and 8% did not finish primary education. This is because some of the respondents are elderly. Thus, those who have never received education and those who did not finish primary education are those who fall into elderly category, because when they were in school age, the government had not promoted the 9-year compulsory education program. Seventeen percent of the respondents are primary school graduates, 33% junior high, 28% senior high, and 13% higher education (diploma or bachelor degree).

In terms of occupation, the respondents vary as well. Thirty four percent are entrepreneurs, 20% are housewives, 16% are farmers, 8% are students/college students, 5% are private employees, 3% are civil servants/army/police officers, and the rest 14% stated other occupations, including retirees, unemployed, community protection officers, massage therapists, and shopkeepers. This has implications for the respondents' monthly expenses: 21% expend Rp900,000; 11% Rp1,250,000 - less than Rp1,250,000; 12% Rp1,250,000 - less than Rp1,750,000; 14% Rp1,750,000 - less than Rp2,500,000; 16% Rp2,500,000 - less than Rp4,000,000; 16% Rp4,000,000 - less than Rp6,000,000; and 10% more than Rp6,000,000.

More than half of the respondents (57%) are involved in the development of tourist destinations in various functions. Nineteen percent of them are tour guides; 16% are food and beverages sellers; 8% are the management of a tourist destination; 4% are merchants/merchandisers, the rest 10% are parking attendants, motorcycle taxi drivers, builders, security guards, home-stay keepers, and massage therapists. In terms of period of involvement, 36% have been involved in tourism development for 1-5 years, 18% for 6-11 years, 1% for 12-17 years, and 2% for 24-30 years.

Sixty two percent of the respondents know what a geopark is, 19% are unsure, and 19% don't know. Out of the 62% knowing what a geopark is, only 54% can explain the meaning of geopark, and only 37% can give the right answer. When asked in more details about what geotourism and sustainable tourism development are, the respondents who know about these two things are even less in number when compared to those who know about geopark. Less than half of the respondents (47%) know what geotourism is and only 38% know what sustainable tourism development is. Twenty two percent are unsure about geotourism and 25% about what sustainable tourism development is. The data also show that 31% of the respondents don't know what geotourism is and 37% don't know what sustainable tourism development is.

In the demographic data section, the researchers have stated that more than half of the respondents (57%) are involved in geotourism development.
firsthand in the geopark area, but only 37% can accurately explain what a geopark is, 9% can accurately explain what geotourism is, and 8% can accurately explain what sustainable tourism development is.

However, 74% of the respondents know that their residence and the surrounding tourist attractions are part of UNESCO Global Geoparks. Only 8% of the respondents are unsure and 18% don’t know that their residence and the surrounding tourist attractions are part of Ciletuh-Palabuhan Ratu UNESCO Global Geopark (CPUGGp). This result is because 78% of the respondents state that they have heard of Ciletuh-Palabuhan Ratu UNESCO Global Geopark, and 72% have heard the phrase Ciletuh-Palabuhan Ratu UNESCO Global Geopark, and 62% have seen the writings of CPUGGp or Ciletuh-Palabuhan Ratu UNESCO Global Geopark in tourist attractions around their residence.

Perception is giving meaning to the stimuli an individual senses. This is line with Octavianti et al. (2018) who states, perception is to interpret the sensory stimuli. Perception is a stimulus sensed by humans or individuals. Senses are the link between humans and their environment. Therefore, it can be said that perception is the reception of messages from the outside world by the human mind. Slameto (2010) states that perception is the reception of messages from the outside world by the human mind. Slameto also states that humans are constantly in touch with their environment through perception. This is made through their senses of sight, touch, taste, and smell.

Jalaluddin Rakhmat (2020) supports the results of this research that perception is perceiving objects, events, or relationships by inferring information and interpreting messages. Perception is the process of giving meaning to the sensory stimuli. Thus, perception is not solely about knowledge, but that the knowledge comes from the process of receiving sensory stimuli. Perception is the mind’s ability to interpret a stimulus or a process to interpret a stimulus received by human senses (Iryanita & Sugiarto, 2013). The stimulus received by the five senses is a sensation. In addition, perception is a meaningful interpretation of a sensation as an external object representative, and thus it is a visible knowledge of something outside an individual (Mulyana, 2007), which in this case is the geotourism development in Tamanjaya Village of Ciemas District, Sukabumi Regency, one of geosites at Ciletuh-Palabuhan Ratu UNESCO Global Geopark (CPUGGp).

One’s knowledge and understanding of an object, in this case the geotourism development in CPUGGp, is a perception-forming factor. This is in line with Walgito (2010) who states that perception is formed by a series of (cognition) processes, from receiving stimuli from an object through senses to creating an understanding of it. Furthermore, Walgito (2010) states that several factors play a role in one’s perception: (1) the perceived object, in this case the geotourism development in CPUGGp; (2) the senses, nerves, and central nervous system a.k.a. the recipients of the stimuli from the outside of one-selves, in this case the people who live in CPUGGp area; and (3) focusing all community activities on the objects related to geotourism development in CPUGGp area.
Based on this, an indicator of community perception of geotourism development is how high the community knowledge and (cognitive) understanding of the form of geotourism development in CPUGGp is. Data of the research show that the Tamanjaya community knowledge and understanding of geotourism development in their residence is already in high category (63%). However, 32% fall into average category and 5% into low category.

When one pays attention to an object, there will be a further process, i.e. interpreting the object. Perception involves the process of sensing, paying attention, and interpreting (Riswandi, 2009). In terms of interpretation, an individual will evaluate the object of his concern. Eighty two percent of the respondents state that tourist attractions in their residential area deserve to be part of the UNESCO-recognized geopark, and 72% state that the decision to recognize the tourist attractions in their residential area as a global geopark is already right.

Tourism in a geopark cannot be developed as in general tourism places. The Regulation of the Minister of Tourism and Creative Economy / Head of the Tourism and Creative Economy Agency Number 2/2020 states that geopark development should be in the concept of sustainable tourism development, where it is expected to stimulate economic activities and sustainable development through geotourism. The data show that 74% of the respondents state that the geotourism development in their residential area has improved the local economy and 69% think that their lives are getting better after their residential area was recognized as a global geopark. Besides improving the local economy, geotourism development must also pay attention to environmental and cultural sustainability. Sixty nine percent of the respondents state that the geotourism development in their residential area has taken into account the sustainability of the environment and local culture.

One of the objectives of geotourism development is to increase the number of tourist visits. Eighty two percent state that they are pleased with the growth of
visitors in the tourist destinations in their residential area, and only 22% state that they are disturbed by the tourist visits. In general, the result makes 81% of the respondents state that they are pleased with the UNESCO global geotourism development in their residential areas.

Therefore, when it is categorized in affective component, which is another perception-forming component, the result shows that most of the respondents (86%) rate highly the geotourism development in CPUGGp, and only 6% rate it average and 8% low.

![Diagram 2 Community Evaluation on Geotourism Development in CPUGGp Area](image)

In addition to rating or evaluation, perception is also formed by community tendency to act. In this research, to act means to participate in the geotourism development in CPUGGp. Therefore, conative or tendency to act becomes the third component to measure to reveal the community perception of geotourism development. The result shows that 70% of the respondents have a high tendency to act in the geotourism development in their residential area, while 23% have an average, and 7% have a low tendency to participate in the geotourism development in CPUGGp.

![Diagram 3 Community Tendency to Involve in Geotourism Development in CPUGGp](image)

The data show that the community tendency to participate in the geotourism development in CPUGGp falls into high category. This is supported by the fact that
more than half of the respondents (55%) state that they object if outsiders or private companies involve in the development of tourist destinations in their residential area. However, they still need government supports to develop geotourism, where 78% state that in the implementation the local government, i.e. the Regional Government of Sukabumi Regency, supports the geotourism development in CPUGGp.

The aforementioned data show that perception is an integrated activity of three components: cognitive, affective, and conative. This is in line with Walgito (2004) who states that perception is a process of organizing, interpreting a stimulus received by an organism or individual to make it meaningful and is an integrated activity within the individual. In this research, community perception is measured by looking at the level of community knowledge and understanding of geotourism development, community evaluation, and community tendency to participate in the geotourism development in CPUGGp.

In general, the results show that 76% of the respondents have a positive perception of geotourism development in Ciletuh-Palabuhan Ratu UNESCO Global Geopark (CPUGGp), 18% have a neutral perception, and 6% still have a negative one. Irwanto (2002) states that positive perception is perception that describes all of information, knowledge (known or unknown) positively. In addition, positive perception is positive interpretations that involve human evaluating something around them. In this research, it means 76% of the people of Tamanjaya Village of Ciemas DIstrict, Sukabumi Regency are willing to accept and support the perceived objects.

Diagram 4 Community Perception of Geotourism Development in Ciletuh-Palabuhan Ratu UNESCO Global Geopark (CPUGGp)

Community positive perception is the key for a geopark to develop with three main pillars: conservation, education, community economic growth. This acknowledgment comes from the recognition of local communities as the key factor for the success of any development and conservation agenda (Baldus et al., 2003) (Barrow & Fabricius, 2002) (Hackel, 1999). Development programs in a geopark can run well if a positive perception has grown in the local community. Community participation is the main key to the success of a geopark, and it is closely related to the development of a geopark. (Sapoetra et al., 2021)
Conclusion

In this research, the researchers did not only measure the rate of community perception but also categorize each of its constituent components. The people who live in Ciletuh-Palabuhan Ratu UNESCO Global Geopark (CPUGGp) area, particularly Tamanjaya Village of Ciemas District, Sukabumi Regency have already had a positive perception of geotourism development in CPUGGp. Their knowledge and understanding of geotourism development in the geopark have already been in high category. They know and understand what a geopark, geotourism, and sustainable development are. In addition, they know and understand that geotourism development pay attention to the sustainability of the environment, culture and community economic growth.

The community evaluation on geotourism development in CPUGGp is already in the high category. The community consider that it is the right decision if Tamanjaya Village of Ciemas District is included in the UNESCO-recognized geopark area, and that the geotourism development in their residential area has had a positive impact on the community economic growth. This leads to a high community tendency to involve and participate in geotourism development in their residential area, which is a geosite of Ciletuh-Palabuhan Ratu UNESCO Global Geopark.

The data show that even though the community knowledge falls into high category, they still cannot accurately explain the geotourism development programs in details. Thus, they still need assistance from various authorities, especially the local governments, in order to provide a more detailed explanation of the geotourism development programs which in fact have different characteristics from those of general tourism. In addition, training is still needed to improve community skills in all geotourism development programs in their residential area.

Limitation And Study Forward

This is a preliminary research of a greater study, and thus it is not free from limitations. The authors only described data on the perceptions of the residents of Tamanjaya Village, Ciemas District, Sukabumi Regency, which is a village in the plateau area of Ciletuh-Palabuhan Ratu UNESCO Global Geopark. This research will be more holistic if it’s conducted in a village or region in the lowland or coast. This is that the demographic or psychographic characteristics may generate different data on the perceptions of geotourism development. In addition, this perceptive research will be richer if it’s conducted on various stakeholders involved in the geotourism management as a form of Ciletuh-Palabuhan Ratu UNESCO Global Geopark development.

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Reference


