

Local Wisdom Education to Develop Geo-diversity Understanding

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Abstract. In Ciletuh, Sukabumi, Indonesia, there is a natural heritage in terms of geology, biodiversity, and culture. Having been introduced as a National Geo-park since 2015, this place has been visited by a lot of tourists and scientists. This leads to the necessity of its local people to play their role in preserving nature. Thus, early education on local wisdom to the local people is important. This study uses survey promoting interview technique to find out the condition of the local people in a remote area namely Taman Jaya, Ciemas, Sukabumi, Indonesia to develop local wisdom education. The results show that local wisdom education within the area of Ciletuh Geo-park emphasizes more on the local people participation, particularly youth participation, as a well-educated tour guide so that local wisdom and geo-diversity keep being preserved. For a long-term target, there needs to be formal local wisdom education starting from primary school to higher education so that Ciletuh Geoprak can be a learning facility for both intra-curricular and extra-curricular activities.

1. Introduction

Geo-park is a natural heritage that is also a conservation of natural, biological, and cultural wealth. The existence of a geo-park in Indonesia, a country with quite high potentials of natural disasters, is unique. There are several geo-parks located in Indonesia, one of which is namely Ciletuh Geo-park located in Sukabumi, West Java province, Indonesia. The concept of this geo-park is believed to be able to enhance natural and cultural conservation [1]. As Ciletuh geo-park is a rare site, it is in need of continuous development of local wisdom and culture [2]. Geo-park is also categorized as a geo-diversity area, which has potentials not only as a tourism place, but also local wisdom – based education. To do so, the local people need to fully support the area to be a geo-diversity-utilized place [3].

The local people's support is an important point in preserving Ciletuh as a conservation and education center, particularly local wisdom education. One of the local wisdom potentials of Ciletuh geo-park is such natural stones as ofiolit, metamorphic, and mélange. Those stone are a result collision between Euraisa continent and Indian Ocean about 60 million years ago. This phenomenon makes Ciletuh geo-park a uniquely-interesting place to visit since it has a natural experience which transforms into a beautiful natural heritage. Geo-diversity commonly internalizes educational values that are important to study; one of which is geo-park development [4]. Local wisdom values are the main factor making Ciletuh geo-park a unique place that introduces geo-diversity. Basically local wisdom is a collection of characteristics within the local people reflected in social process of their daily life that has logical and integrated meanings divided into three things that include thoughts, behaviors, and artifacts [5]. Ciletuh



geropak as a natural conservation place with its local wisdom is a natural heritage whose local people around the place needs to take care of.

This study focuses on how the local people around Taman Jaya, Ciemas, Sukabumi, Indonesia, participate in preserving their environment as well as analyze local wisdom values as a learning medium for both local people and visitors, either tourists or scientists.

Geography education is an important aspect in the scientific advancement since it involves scientific and cultural approaches [6]. The development of geography education can raise the local people's awareness in relation to natural conservation such as geo-park, which is a geographically-important asset [7]. Geo-diversity concept is closely related to the natural conservation. Geo-diversity also has meaningfully scientific, aesthetic, intrinsic, functional, and cultural values [4]. As a natural phenomenon, geo-diversity reveals the relationship between people with nature and culture [8].

The role of geodiveristy leads to continuous environmental education by maintaining natural ecosystem and preserving local wisdom in natural conservation [9]. Geodiverrsty education is also closely related to raising the understanding and awareness of how to appreciate the nature and local wisdom. Implementing local wisdom values is one of the efforts to understand geodiveristy through education [10]. Geo-diversity-based activities usually concern with natural, biological, and cultural conservation.

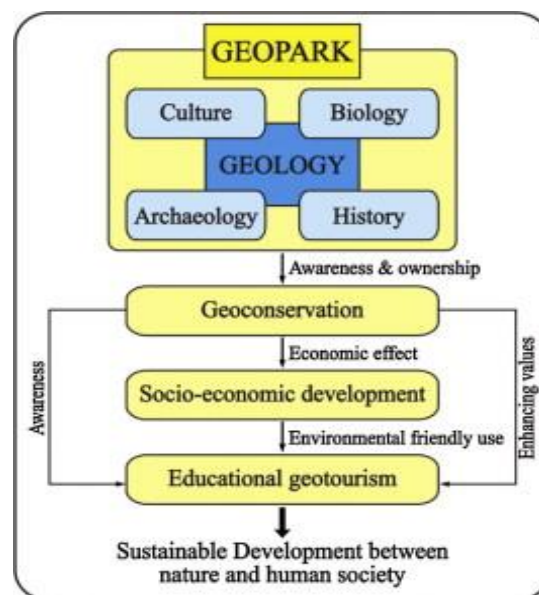


Figure 1. Functions and Requirements of Geo-park [11]

Figure 1 shows that a geo-park needs to accommodate local wisdom values. These values are to be implemented by the local people through formal and informal education. Thus, the important character to build is not only natural conservation but also local wisdom value preservation which is actually the potentials of the local people [12]. The more the local people internalize those characters, the more intelligent and wiser they get in preserving nature.

2. Methods

This study investigates how the local people around Taman Jaya, Sukabumi, Indonesia, take part in preserving nature and local wisdom values of Ciletuh geo-park as a formal or informal educational facility for both local people and visitors. Performing survey and interview, this study tries to describe how the local people preserve the local wisdom values around Ciletuh through geo-diversity understanding. Participants in this study are local people around Ciletuh geo-park. Meantime, there are six native Ciletuh people and four non-native Ciletuh people acting out as interviewees in this study.

3. Results and Discussions

People living at Taman Jaya, Ciemas, Sukabumi are basically traditional ones. The nature of beauty with biological diversity is viewed as God's great creature. The mostly do not understand that those are a geological natural process happening around 60 million years ago. They also do not know that the existence of stones that are well-formed are due to hot lava surrounding the area about 100 KM under the sea level. Those are some natural phenomena that the local people do not know of. However, since 2015, Ciletuh has been appointed as a national geo-park and in a process of becoming a global geo-park recognized by UNESCO. A geo-park area simply means an area based on educational, conservational, and cultural principles.

As an attempt to have recognized as a global geo-park, parties involved constantly promote and preserve the area by doing socialization and conservation. In the interview to the young generation, it is found that young people who used to merely give general information to the visitors are turning out into informative tour guides. When facing scientists visitors, most are them usually have cultural shock especially when the scientists ask them the names of stones they see every day since they do not know them. Most of the scientist are usually interested with the cultural and geological aspects of the area so that they ask their tour guides to take them to anti-mainstream having unique geo-diversity. This kind of condition requires the local people to re-discover their own "home". Facing this cultural shock, the ladies of Ciletuh are now focusing on making local food and merchandise such as batik.

The most important point in this context is how every element of the local people participates to preserve local wisdom that is contributing not only to the present but also to the future. The local wisdom values with geo-diversity understanding are expected to educate both local people and visitors.

In formal education, local wisdom education can be implemented in classes. Teachers who explain geo-diversity in their class actually promote and socialize the local wisdom values with geo-diversity understanding. In informal education, on the other hand, this activity can be done in extra-curricular activities. By doing so, both formal and informal education indirectly produce professional tour guides with adequate knowledge and skills. Thus, there is a synergy in geo-diversity perseverance based on local wisdom education.

Natural and cultural conservation is a representative of a continuous education process in developing a geo-park area [1]. Therefore, Ciletuh geo-park as a conservative are is developed not only in terms of nature but also in terms of culture. The conservation of Ciletuh itself consists of conservation of nature reserve, wildlife reserve, and forest conservation managed by the local people. A geo-park area should be able to develop education understanding whose implication lies on both natural and cultural diversity [11].

The educational values are implemented through local wisdom in a form of geo-diversity understanding which is an important point in geo-park development. Another important point in geo-park development is the chain of education meaning that the geo-diversity understanding based on local wisdom should be inherited from generation to generation. Educating the local people through multilayered generations is an attempt to support the development of Ciletuh to be a global geo-park. Local wisdom education is defined as an indirect learning process integrated through thoughts, behaviors, and artifacts [5]. In Ciletuh, internalizing geo-diversity through local wisdom is related to each other since there is a synergy among the thoughts, behaviors, and also artifacts of the area. This is believed to make them easier to understand the concept of geo-diversity in Ciletuh. It is inevitable that local wisdom values of Ciletuh are such a potential to be a good geo-park [12].

Management of geo-park area, especially in Ciletuh, is not only an effort to maintain ecosystem but also a long-term educational process for the local people based on local wisdom values. Geo-diversity understanding has actually been included into the school curriculum in Sukabumi. Teachers in Sukabumi have already been indirectly promoting the area and education future professional tour guides by explaining Ciletuh geo-park – related materials in their class. In addition, this kind of activity has already been carried out in extra-curricular programs as well. It is agreed that local wisdom – based conservation needs to be integrated into the curriculum as a support of preserving geo-park [13].

Supportive action of education institutions is something of importance. In this context, the institutions play their role to educate the local people so that they can educate visitors in terms of nature and culture. The participation of local people is big step in developing Ciletuh to get recognized globally. Thus, local people play an important part in developing natural heritage and interpreting local wisdom values to understand geo-diversity [14].

4. Conclusions

Conservation does not merely focus on preserving the nature but also maintaining local wisdom values. It is important to educate the local people to understand geo-diversity based on local wisdom values so that they can spread out those values to the visitors either who come as tourists or who come as scientists. Those values of local wisdom are implemented through the development of the local people in Ciletuh since they are Ciletuh basically has what it takes, both in terms of nature and in terms of culture, to be a global geo-park. Local wisdom education needs to be embedded within the local people's mind so that they can contribute a lot in various aspects of life in supporting Ciletuh to become a global geo-park. In addition to the local people, geo-diversity understanding based on local wisdom values need to also be implemented in either formal or informal education.

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