The Development of Rural Tourism in National Geopark of Karangsambung-Karangbolong: The Case of Seboro Village

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ABSTRACT

Being the poorest regency in Central Java, Kebumen evidently has abundant natural potential resources in Seboro Village, located in Sadang District. The nickname "primordial ocean floor" was given to the silent witness of geological history that was revealed on the land of the archipelago. This area is located in the Karangsambung-Karangbolong National Geopark area which will be submitted to the UNESCO Global Geoparks. Local governments and local communities carry out synergies together to manage and develop the existing natural resources. This study aims to examine the tourism potential in Seboro Village as one of the pillars of the Karangsambung-Karangbolong National Geopark. The methodology used in this research is field observation and literature study, with a descriptive explorative approach. The results show that Seboro Village has a lot of tourism potential including the geological heritage of international value such as pillow lava, also well-fertile land as an agro-tourism area, as well as a wealth of cultural heritage that is still being preserved. These things fulfill three important components in a geopark, namely conservation, education, and community empowerment. The development of tourism villages can be worked by synergizing local communities and the local government of Kebumen Regency, including the institution authorized to own geological sites there, BRIN (National Research and Innovation Agency), by labeling "GeoAgro-tourism" as a new concept of geotourism and agro-tourism which will be the first in Indonesia. GeoAgro-tourism will generate benefits for Seboro Village in sustainable community economic empowerment that will be generated from geo-tourism and agro-tourism.

Keywords: Seboro village, rural tourism, geopark, tourism village.

1. INTRODUCTION

Tourism is one of the regional capacity building industries that has received much attention in the contemporary world. It has very important role in encouraging the country's economy through its management in each region, it is not surprising that many studies discuss tourism to develop the region. Building an area through tourism is not an easy thing to do, but it requires regional potential resource that is closely related to the environment.

Indonesia has begun to implement a potential-based tourism model through tourism villages as stated in Law No. 22 of 1999 [1]. Village management with the tourism concept is expected to support the economic growth of rural communities through exploring the potential that exists in the village. The exploration of this potential is continued with management by the local community and stakeholders involved in its development into a more advanced village in the tourism sector. One of the villages that uses the concept of a tourism village based on regional potential is Seboro Village.

Seboro Village is located in Sadang District, Kebumen Regency, is a mountainous area directly adjacent to Banjarnegara Regency in the north with an altitude of 100 to 570 meters above sea level [2]. Located about 25 km from the center of Kebumen Regency, this village has an area of about 1500 hectares in the form of beautiful and charming valleys and hills. This area is very beautiful formed and natural because it is geographically located in a mountainous area. Seboro is included in the list of underdeveloped villages in Indonesia, while Kebumen Regency which is also stated as the poorest district in Central Java with 16.82%, far above the average poverty rate of Central Java Province of 10.8% [3]. However, this area has natural potential resource that can lead Seboro Village to become a tourist village in 2016 and become the scope of a geopark area, namely the
National Geopark of Karangsambung-Karangbolong (GNKK) which has been recognized nationally in 2018. Geopark is a geographical area with elements: geology, biology, and culture, which were developed with the concept of area management through conservation, education, and sustainable community development [4].

The inclusion of Seboro as a GNKK area is a manifestation of the potential that exists there, which can be seen directly, namely clusters of frozen pillow lava that stick to sedimentary rocks in mountainous areas that should only exist on the ocean floor. The name Seboro may still be unfamiliar to ordinary people, but it is familiar to both homeland and foreign geotourists. Along the way, there is a beautiful panorama of hill walls formed from unique rock layers, to the largest river in Kebumen. This area is often referred to as Indonesia's yellowstone national park because Seboro stores various geological monuments that cannot be found in other similar places. This is inseparable from the geographical location of this region, about 120 million years ago it was the seabed which became the meeting point of continental and oceanic plates [5]. This subduction process for hundreds of millions of years has caused these ancient rocks to be lifted to the surface to form highland hills and mountains in the northern region of Kebumen Regency.

Not only geology, the village which has the nickname as the floor of the ancient ocean floor holds a wealth of cultural arts such as; lumping horses, janeng, tambourines, hadroh, and many other cultural arts that are still preserved. In addition, there is also the potential for village tourism known as Selo Asri Reservoir and Cangkring Reservoir. The reservoir or retention basin, as people usually call it as embung, is made as a place to accommodate the supply of rainwater which is used to maintain the quality of ground water as well as to irrigate village land in the dry season. The collected water will be stored as irrigation for village land which is also used for longan cultivation. The vast land in this village is a center for geological studies, and also has a wealth of agrotourism with longan and durian gardens cultivated by the local people of Seboro Village.

Based on the potential of the village as a geotourism and agrotourism area, through the Community Based Tourism approach, this article discusses the collaboration between the community and the government to develop Seboro Village as a Geo-Agrotourism Village in the National Geopark of Karangsambung-Karangbolong area which adopts geopark values in its management. The synergy between the local government and related stakeholders who manage tourist villages to achieve sustainable community empowerment also supports the first point in the Sustainable Development Goals (SDG's), namely poverty alleviation, which is expected to increase the economic capacity of Seboro Village.

2. LITERATURE REVIEW

2.1. Previous Research

The concept of the tourist village is a common topic that has received much attention from academics, as well as the concept of Community Based Tourism. Tourist villages become the driving force of the regional economy with its potential which is supported by a good management concept that involves regional stakeholders in providing ideas and programs as well as being an intermediary supporting local tourism offered to tourism lovers. The scope of the notion of a tourist village nowadays is not only about tourism objects that are experiencing a trend, but has been able to present a more dynamic variety of destinations by involving village potentials related to environmental conservation. This strongly supports the SDG’s number 1 goal, namely "no poverty" or poverty alleviation, which aims to reduce poverty in all its forms, ensuring that all people and especially the poorest have equal rights to economic resources, natural resources, and technology. By utilizing the ability of local communities to provide needs can support regional economic development in the tourism sector. Through community synergy as outlined in tourist villages, tourism shows its ability as a regional economic booster that utilizes rural workers.

Besides, the important thing in the dynamics of environmental management is a geological park or geopark as a place to preserve nature. Geopark is defined as an area or area with a geological site where the local community is also involved and plays an active role to protect sustainability and improve its function. Geopark is an area development management concept that is synergized with conservation principles and regional spatial planning in an area that has been built with pillars on aspects of conservation, education, and local and regional economic value development [6]. Areas with geological potential supported by tourism-based management can encourage the area to become a geotourism area, this is very relevant to the existence of geoparks as an innovation of natural and geological heritage protection areas. In developing geological potential through geotourism, the establishment and management of geoparks in an area can generate new jobs within the local community as a driving force for tourism through economic activities, and a source of additional income, especially in rural areas.

Tourism villages, geoparks, and Community Based Tourism are things that are relevant and much discussed. Their respective roles are also very important to raise the regional economy from the lower level, namely the local community. However, despite the many discussions on these topics and branches of learning, the research conducted by most researchers is limited to each of these topics; the scope of tourist villages only or geoparks only. Many researchers use the concept of community based
tourism in rural tourism, but the tourism village areas are not included in the geopark area. There has not been much research that discusses the role of tourist villages in the geopark area and the synergy between the government and the community in its management.

2.2. Theory

2.2.1. Rural Tourism

The definition of rural tourism varies in each country according to what they serve and the demands of the community. The tourist village is a form of community integration in the area that is accommodated by supporting facilities and facilities while still using the procedures and traditions of local communities in the area. To become a tourist village, a village must have a unique special attraction and can rarely be found in the residences of the wider community. According to Hadiwijoyo, the thing that underlies the formation of a tourist village is the environmental and cultural conditions of the people who inhabit the area [7]. The existence of interesting natural, historical and cultural objects is an important indicator of the formation of a tourist village [7]. In addition, support from the local authorities and community to provide adequate facilities will determine the course of the tourist village [7]. Local government support that oversees tourist villages and local self-help groups that participate also have an impact on rural tourism [8]. The purpose of the establishment of the tourism village is to empower local communities in creating prosperity by improving the economy of the rural communities involved in the formation and management of the tourist village itself [9].

2.2.2. Community Based Tourism

The community-based-tourism strategy has been widely used as a tourism development concept in several developing countries in Asia [10]. With the strategy of implementing the synergy of local communities and regional officials, community based tourism is based on sustainability, conservation, and cultural enhancement to improve the regional economy by increasing the livelihoods of the population as a result of the development of the potential of the managed area [11]. Community based tourism can be implemented on the basis of the existence of the cultural heritage of a community and its human resources who are able to explore this potential. This is considered very ideal and strategic because the creation of tourism can not only improve the wheels of the regional economy, but can also be a forum for the preservation of regional culture that can become a regional tourist attraction [12]. Campbell and Vainio-Mattila also talked about community-based tourism which suggested that in its development, tourism object areas can provide alternative opportunities for activities that have conservation value as an attraction that not many regions raise about it [13].

Community based tourism (CBT) is a concept of community empowerment that talks about equity, benefits, and redistributive measures as a holistic community management concept [14]. These studies explain that community-based tourism has a good role and opportunity as a concept for preserving the environment and local culture and increasing regional income through the participation of local communities.

3. RESEARCH METHOD

The method used in data collection was carried out by field observations, interviews with relevant stakeholder sources, and literature studies obtained from written publications related to the research topic. By using a qualitative descriptive method, the purpose of this study is to explore the potential of Seboro Village as a tourist village in the geopark area with the concept of Community Based Development, namely the synergy between the community and local government in managing the area. The data obtained are in the form of descriptions and pictures that show the condition and development of the Seboro tourist village. Then, the data is analyzed starting from the preparation of the concept, collecting data in the field, until the relevant results are obtained.

4. FINDINGS

4.1. Object of Research

4.1.1. Geotourism at Seboro Village (National Geopark of Karangsambung-Karangbolong)

Karangsambung which is located in the northern part of Kebumen Regency is an earth artifact that has a lot of geological heritage. This area is evidence of historical fragments that were formed from the collision of the Australian Indian Ocean plate with the Eurasian continental plate which was lifted into a large landmass. The oldest rocks in Java have been exposed which have undergone a process of subduction for hundreds of millions of years, causing the ancient rocks to be exposed to the surface to become a plateau. These rocks are a track record of earth formation events that cannot be seen in other areas, so that in 2006 this area was inaugurated by President Susilo Bambang Yudhoyono as a geological nature reserve in Indonesia which is now managed by the National Research and Innovation Agency (Badan Riset dan Inovasi Nasional or BRIN) [15]. About six kilometers from the Karangsambung geological education center, there is a village dubbed as the ancient ocean floor, namely Seboro Village. We can see along the way, there are beautiful panoramas of hills, valleys, to the largest river in Kebumen, namely the Luk Ulo.
River. There, too, we can see and feel the shape of rocks from the ocean floor which are not many in the world. However, Seboro has 75% of all similar rocks in Southeast Asia, namely Pillow Lava rock (or commonly called watu kelir by local people) [16]. Because of their rarity and exclusivity, the rocks in Seboro Village are of international value and bring geotourism visitors who want to study at the BRIN geological study center and also visit the rock outcrop center in Seboro.

**Figure 1** Pillow Lava geological site in Seboro Village

Source: Observation findings, 2021

The pillow lava and red chert there are thought to be rocks that only form in the deep sea. The uniqueness of this rock makes it an international geological heritage, because it is rarely found in other regions in Indonesia. The characteristics of the lava at this geosite, which resembles a pillow, indicate that it is related to underwater volcanic activity [17]. While the red chert containing radiolarian fossils shows that its formation is related to the mechanism of the sedimentation process 4 km under the sea. According to the local community, pillow lava and red chert resemble a puppet show stage with a set of gamelan, this is a historical story that is unique to the pillow lava geological site.

In addition to being an official geological site in a geological nature reserve, Pillow Lava or commonly called Watu Kelir by the local community of Seboro Village is one of the great and important assets of the National Geopark of Karangsambung-Karangbolong. The rock, which according to researchers is only found on the seabed, is a meeting of continental and oceanic plates about 120 million years ago, so this rock site has international scientific value because it proves that since that time there has been a collision of oceanic plates with continental plates in the Karangsambung area [5].

Pillow Lava is one of the geological sites (geosite) in the National Geopark of Karangsambung-Karangbolong (GNKK) area with the concept of protection or conservation, education, and holistic sustainable development. With its establishment and development, not only community economic development is the goal and its management, but there are also two other geopark management concepts, namely conservation and education which will fulfill the three main pillars of the geopark in a tourism village. In addition, by involving local communities to local authorities at the geosite location, the management of the Tourism Village supports the principle of geopark development, namely the bottom-up principle. This is important in the management of a tourist village in the geopark area by involving local communities to local officials in the development of the area.

2.2.2. Agrotourism at Seboro Village

Having fertile soil, Seboro Village has become a longan plantation area with local residents becoming farmers and cultivating their own plants. The idea of developing an agro-tourism area in Seboro Village began in 2008 and was realized in 2011 through the Farmer Empowerment Center (Sentra Pemberdayaan Tani/SPT) program assisted by the Obor Tani Foundation [18]. To support agro-tourism, the construction of a reservoir was carried out which at that time was initiated by the Deputy Governor of Central Java, Rustiningsih, who later built the Selo Asri Embung in Seboro Village covering an area of 8,000 square meters to accommodate water during the rainy season. The water will be channeled during the dry season with a gravity system without electricity, and fuel oil to farmers' land [18].

In 2014, the sustainability of the Seboro agro-tourism program was carried out through the National Community Empowerment Program (Program Nasional Pemberdayaan Masyarakat/PNPM) Master Plan for the Indonesian Poverty Alleviation Program (Master Plan Percepatan dan Perluasan Pengurangan Kemiskinan Indonesia/MP3KI), by planting 4000 longan trees on an area of 20 hectares. Cultivated longan is also a good type of longan and its fruiting does not depend on the season, so it can be engineered for a tourism village management strategy so that it can still bear fruit throughout the year. Farmers who cultivate longans there can produce an average of 25 kilograms of longans in one tree, so the more farmers who fertilize longan trees, the greater the opportunity to increase local income by selling these crops [19].

Besides longan, the fertile land in Seboro Village is also planted with durian and palawija trees which are also cultivated by several village farmers. The size of the Seboro area which still leaves a lot of land for agriculture and plantations can be a source of regional income if in the future it can be projected for other programs.
4.2. Government and local community collaboration

In the development of tourist villages, synergy is needed between the people who occupy the area and regional stakeholders who can accommodate programs and activities that support the development of tourist villages. The area which is the scope of the GNKK has become one of the areas with special attention from local officials, namely the Kebumen Regency Government through the GNKK Management Agency (Badan Pengelola GNKK or BP GNKK) which is under the Regional Planning, Research and Development Agency of Kebumen (BAPPEDA), and also the BRIN Karangsambung as the manager of the pillow lava geological site in the area of Seboro Village. As a form of community based tourism, the government's effort to collaborate with local communities in managing regional potential is the preparation of a cooperation agreement between BRIN and the Regency Government, namely BP. The embodiment of collaboration between relevant stakeholders in forming a tourist village is one of them through the formation of Tourism Awareness Groups (pokdarwis). In addition, the Government of Kebumen Regency also provides support through the relevant agencies in the establishment of Village Owned Enterprises (Bumdes). The following is the development scheme for the Seboro Tourism Village in the Karangsambung-Karangbolong National Geopark area:

The basis of the synergy between the community and BRIN in maintaining the rocks there is the geological potential which is an important asset of BRIN, but the village does not have the human resources to care for or maintain the rocks. So that BRIN came to work together to maintain rock outcrops as well as develop geotourism there, rock outcrop assets are allowed to be managed by the village through pokdarwis which later on the village community will reap the results of the educational tourism implemented, namely the creation of local businesses [20]. This activity is a mutualism symbiosis with both parties benefiting from the creation of conservation activities for BRIN by maintaining rock assets, and the village benefiting through improving the local economy.

Karangsambung is an area that has a lot of geological heritage that is often visited by geologists and academics, those academics and geotourism visitors are accommodated by BRIN through educational packages including lodging and field lectures guided by a team of BRIN Karangsambung geologists who are also provided with a geology museum and classes for learning, seminars and other activities.

The commitment of each party in managing the educational tourism village is realized by providing budgets from both BRIN and the Regency Government through BP GNKK, as well as villages that provide the Village Fund (Dana Desa) budget to develop the Seboro educational tourism village area. In addition to provide budget, the village also prepares a master plan as a direction for sustainable village development, which is supported by trainings held by the Regency Government together with BRIN for the Seboro Village Pokdarwis.
One village one product is meant, for example, the collaboration that has been carried out by BRIN by providing assistance and direction in villages in Karangsambung to build homestays in people's homes. The homestay will later be projected as a lodging place for visitors, especially academics as geotourism visitors who will study geology in the GNKK area. This is based on the desire of the Regency Government and BRIN to create equity in the GNKK area, because each village has unique and different potentials. Another form of one village one product is Desa Kebakalan which has become an innovative village by creating waste processing equipment which is marketed to surrounding villages. This also applies to villages with residents who have vehicles for rent for BRIN visitors who will also visit other geosite points in GNKK, considering the distance is quite far if taken on foot.

This program is formed and implemented together so as to create integration within the local community and a symbiotic mutualism to support each other in order to improve the district's economy evenly. The surrounding villages can feel the benefits with each maximized potential and does not turn off the economy of other villages.

The establishment and management of the Seboro tourism village as Geo-Agro tourism in the GNKK area is a tourism opportunity with great benefits, namely the realization of three geopark pillars, including: conservation, education, and community empowerment. Conservation by maintaining pillow lava rock outcrop assets with assistance from BRIN and villages so as to create comfort in accommodation and places to visit. Education is the involvement of BRIN and BP GNKK in providing scientific information and other programs with the aim of disseminating geological knowledge as traces of past history. Meanwhile, the realization of community empowerment is through local efforts by the surrounding community that can improve the regional economy. These three geopark pillars can be realized in one village which may not necessarily be found in other villages as a tourist village in the geopark area.

Table 1. Community and government synergy in embody the three geopark pillars

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<thead>
<tr>
<th>Geopark Pillars</th>
<th>Synergy from Community Based Tourism</th>
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<tbody>
<tr>
<td>Conservation</td>
<td>Pillow lava conservation (BRIN, BP GNKK, Village)</td>
</tr>
<tr>
<td>Education</td>
<td>Providing scientific geology information (BRIN)</td>
</tr>
<tr>
<td>Community Empowerment</td>
<td>Community economic improvement through local businesses (Village)</td>
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4.4. Future plan of the collaboration

The plan for the development of the Geo-Agro-tourism area in Seboro, especially after the new normal and the easing of the covid-19 pandemic, is by joint management by engineering the path to pillow lava so that it passes through cultivated longan gardens so that geo-tourism and agro-tourism can run simultaneously. It should be emphasized that the tours offered in Seboro Village are educational tours, supported by the reservoir which is also equipped with outbound rides and gamelan beats that can be enjoyed by visitors.

Meanwhile, the large-scale innovation program of the Regency Government and BRIN is related to the common goal of increasing the economy of the community. The Seboro Village Geo-Agro-tourism concept will be developed with the programs in the cooperation agreement between BP GNKK and BRIN, namely by identifying the synergy of activities based on the Regulation of the Minister of National Development Planning or the Head of the National Development Planning Agency Number 15 of 2020 concerning the National Action Plan for Development Indonesian Earth Park (Geopark) 2021-2025. Through the programs made by BRIN and the Regency Government in the cooperation agreement, BRIN together with BP GNKK outlines the design of activities and their indicators. One of them is by cooperating with the GNKK Youth Forum (GKKYF) to participate in socializing and mentoring and projecting work programs in the GNKK area, especially Seboro Village. Although the plans and results of this program have not been maximized, the Regency Government together with BRIN and related stakeholders continue to strive to support the potential of the area in each village in the National Geopark of Karangsambung-Karangbolong area.

4. CONCLUSION

This study explores the concept of community based tourism in providing the potential of Seboro Village as an educational tourism village in the Karangsambung-Karangbolong National Geopark area. With the exploration of potential, namely geotourism potential with the existence of the Lava Pillow geological site of international value, and agro-tourism with the existence of longan and durian plantations which are continuously cultivated by local communities. The three pillars of the geopark; conservation, education, and sustainable community empowerment, can be realized by synergies between local communities and relevant stakeholders including the District Government (Badan Pengelola) through the GNKK Management Agency under the Regional Planning, Research and Development Agency (BAPPEDA) with BRIN Karangsambung. The follow-up to the results of extracting regional tourism potential is to take local actions that have a global impact with Geo-Agro tourism activities which are part of the "One Village One Product” program. The program directs the potential of each village in order to create equity in the scope of the district, especially the GNKK area to improve the regional economy.

REFERENCES


