



Harnessing Economic Growth Through Sustainable Geotourism: The Impact of Ijen Geopark's Designation as a UNESCO Global Geopark

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ABSTRACT

The recognition of Ijen Geopark as a UNESCO Global Geopark has opened new avenues for sustainable economic growth in the region through geotourism. This study investigates the economic impact of this designation by examining its effects on tourism growth, employment opportunities, and infrastructure development. Using a qualitative research approach, data were collected from key stakeholders, including Ijen Geopark management and local communities. Findings reveal that UNESCO status has significantly increased both domestic and international tourist visits, driving job creation in sectors like hospitality, tour services, and handicrafts. Local businesses, especially MSMEs, have benefited from this growth, further empowering the community. However, challenges remain in balancing economic expansion with environmental preservation and cultural heritage protection. The study underscores the importance of comprehensive management strategies to maintain long-term sustainability and maximize geotourism's economic and social benefits. Policymakers and geopark managers are encouraged to implement policies that safeguard environmental integrity while promoting inclusive growth.

Keywords: *Economic growth, Ijen Global Geopark, Sustainable Geo tourism.*

INTRODUCTION

Tourism has long been a key sector in driving economic growth, especially in countries with natural and cultural diversity. In this modern era, the concept of sustainable tourism has become increasingly important due to the increasing pressure on the natural environment. Geotourism, as a form of sustainable tourism, not only offers natural beauty, but also provides an understanding of the earth's geological heritage and history. Sustainable geotourism can be defined as the development and management of geo sites and geo tourism activities that balance scientific, educational, and tourism values while ensuring long-term conservation of geological heritage and promoting sustainable economic benefits for local communities. Sustainable geotourism can be defined as a form of tourism that enables people to discover and learn about an area's geological features and processes while adhering to principles of environmental sustainability and conservation (Bentivenga et al., 2019). This approach involves carefully evaluating and selecting appropriate geo sites that have educational and scientific value but can also withstand visitor impacts, developing them in a way that provides access and information for visitors while protecting important geological features, and considering both natural heritage elements and human/tourism elements in their assessment. Sustainable geo tourism promotes geo sites for education and public awareness about geological processes and heritage, involves local communities



in geopark/geosite development and management, and uses geotourism as a driver for sustainable economic growth (Suzuki & Takagi, 2018). It also requires implementing protection and conservation activities to ensure long-term sustainability of geosites, balancing tourism development with the need to protect scientifically valuable but vulnerable sites, and providing clear, accessible information to visitors to enhance understanding and appreciation of geological heritage.

Ijen Geopark, which is located in 2 regions of East Java, namely Banyuwangi and Bondowoso, is an area that has extraordinary geological wealth. This area is dominated by Mount Ijen, an active volcano known for its blue fire phenomenon (Blue Fire) and the turquoise crater of Ijen. The uniqueness of nature and the beauty of Ijen Geopark make it a popular tourist destination for climbers, researchers, and visitors who are interested in geological wonders and biodiversity. In recent years, efforts to elevate the status of Ijen Geopark to become part of the UNESCO Global Geopark have become the main concern of various parties, both from the government, academics, and the local community. This status is not only international recognition, but also brings great potential in economic development through the sustainable tourism sector (Mastika et al., 2023). With the recognition of the Ijen Geopark as part of the UNESCO Global Geopark, this area is projected to attract more tourists, both domestic and foreign, who are interested in enjoying the natural beauty while learning about the geological heritage of the area.

Economic growth driven by the tourism sector, especially geotourism, has a significant impact on local communities. One of the main impacts is the creation of new jobs. The community around the Ijen Geopark, which previously may have depended on the agricultural or mining sectors, can turn to the tourism service sector, such as becoming a tour guide, accommodation manager, or souvenir craftsman. In addition, the development of supporting infrastructure, such as highways, transportation facilities, and communication networks, can also improve the quality of life of the people around the area. A significant impact of the designation of Ijen as a UNESCO Geopark is an increase in international and national tourist visits. The more tourists who visit, the greater the benefits that can be obtained by residents in the Ijen area, the government, and the private sector. The potential for increasing tourist visits in the Ijen area must certainly be anticipated comprehensively by the East Java Provincial Government, the Bondowoso Government, and the Banyuwangi Government. Not only related to the arrangement of destinations, but also the preparation of facilities, access, human resources, promotions, and other things are needed. In addition, what needs to be anticipated is the possibility of development carried out in the Ijen area (Setiawan, 2023). If not planned carefully by considering environmental, human/community, and cultural factors, the development of tourist areas will only present detrimental exploitation.



MATERIALS

In writing this paper, the author uses several literature as a literature review related to the topic of Ijen Geopark, sustainable tourism, and economic growth. In the first article entitled “Creative strategies of local resources in managing geotourism in the Ijen Geopark Bondowoso, East Java, Indonesia” this research focuses on the development of creative strategies in empowering the ability of local communities and local resources to manage geotourism in the Ijen Geopark area, Bondowoso, East Java (Mastika et al., 2023). The perspective used is the resource-based view (RBV), which analyzes local resources based on valuable, rare, imitable, non-substitutable (VRIN) criteria to create a competitive advantage in managing geology-based tourism in the region. This research aims to improve the welfare of local communities through sustainable geotourism management. In the second article entitled “Use of geopark resource values for a sustainable tourism: a case study from Turkey (Cittaslow Uzundere) this research focuses on the utilization of the value of geopark resources for sustainable tourism development, with a case study in Uzundere, a city of Cittaslow in Turkey (Özgeriş & Karahan, 2021). The research subject includes geopark resources which include geological, geomorphological, hydrographic, as well as biodiversity and traditional cultural structures. The Geopark offers great potential for nature-based, science, and adventure tourism activities. Through SWOT analysis and TOWS matrix, this study assesses the potential of geotourism and formulates strategies for sustainable tourism development in 12 different locations in Uzundere.

In the next article entitled “Economic Impact of UNESCO Global Geoparks on Local Communities: Comparative Analysis of Three UNESCO Global Geoparks in Asia”. This article examines the economic impact of UNESCO Global Geoparks (UGGps) on local communities, through case studies of three geoparks in Asia: Itoigawa in Japan, Jeju Island in South Korea, and Dong Van Karst Plateau in Viet Nam. UGGps makes an important contribution to sustainable development and the achievement of the Sustainable Development Goals (SDGs), especially through the promotion of geotourism involving local communities (Lee & Jayakumar, 2021). Through comparative analysis, this article finds that the designation of geoparks significantly improves local economic activities by attracting more tourists and promoting local products inspired by geological features. The development of local geopark brands, such as geoproducts and geofood, as well as tourism and environmental education activities play a major role in creating jobs and supporting local community participation.

METHODS

This study uses a qualitative research model. Qualitative research explores and describes an issue related to individuals or groups in narrative form. In this study, it is not just the displayed results but the process that causes the issue. Certain procedures, such as data collection, data organization, data display, and then analysis, are used in this study (Creswell, J. W., & Creswell, 2017). The data collection techniques used in this study used primary data and secondary data. Primary data is data obtained directly from



the first source or place where the research object is carried out (Sugiyono, 2013). In collecting primary data, the author used an interview method with the Ijen Geopark Management. Secondary data collection is carried out through literature study methods or literature studies. A secondary data source is one that does not directly offer data to the data collector, by definition. Research information sources can be found directly or indirectly in the form of journals, physical evidence, or archives in general, both published and unpublished (Sugiyono, 2013).

RESULT AND DISCUSSION

Economic Impact of the Designation of Ijen Geopark as a UNESCO Global Geopark

The establishment of UNESCO Global Geoparks (UGGPs) within UNESCO's International Geoscience and Geoparks Programme (IGGP) in 2015 marked a key milestone in promoting geoheritage and sustainable development. Geoparks, through the pillars of geotourism, geoeducation, and geoconservation, contribute significantly to the United Nations' Sustainable Development Goals (SDGs). They foster local economic growth by generating jobs, especially in rural areas, through geotourism activities like site visits, festivals, and geoproduct (Lee & Jayakumar, 2021).

Based on the latest data obtained from the manager of the Ijen Nature Tourism Park, the last record for visitor data from December 24, 2023, to January 2, 2024, Kawah Ijen, Banyuwangi, recorded around 15,000 tourists, with an average of 1,500 visitors per day. Domestic tourists accounted for 14,339 of the visitors, while 670 were international. The highest number of visitors occurred on December 24, 2023, with 2,768 people (Husdinariyanto, 2024). There was an 800% increase in visitors compared to regular weekends, which usually see 200-400 visitors per day. The site was temporarily closed after this period for annual evaluation. In addition, in May 2024, the Ijen Crater Natural Tourism Park Authority or TWA stated that the number of tourist visits, both domestic and foreign, reached 2,890 people during the Vesak long holiday. This number is from Thursday, May 23, 2024 to Saturday, May 25, 2024 (Priyasidarta, 2024). The total number of tourists visiting Ijen Geopark from December 2023 – May 2024 is 17,890 people. This number can be considered a positive indication of the impact of Ijen Geopark as a UNESCO Global Geopark.

MSMEs are a term that is familiar to the public. It is often known as a business run by an individual, household, or small business entity. To improve the economy, Ijen Geopark has also collaborated with several MSMEs in the Banyuwangi and Bondowoso regions. Highlighting more deeply about the ins and outs of MSMEs in the Ijen Geopark area, which we usually refer to as Geoproduct.

Geoproducts are all forms of business products carried out by the community, especially medium, small, and micro scales wrapped in the spirit of Geopark for Education, Conservation, and Community Empowerment. Taken from official website, Ijen Unesco



Figure 0.2. Geoproduct of Ijen Geopark at Musrenbang Gebrak Event

Global Geopark has partnered with several MSMEs such as NYK Café X Nyok Kopi, Tjap Daoen, UD Delian's Karya, R3 Trans Tour and Travel, Q-Brojo Coffee Cup, and Aisyah Snack Bondowoso Regency (Geopark, n.d.).

In addition, the Ijen Geopark Instagram account posted a content related to geoproducts from Ijen Geopark. At the East Java Musrenbang Gebrak event, geoproducts of the Ijen Geopark became the prima donna at the 2024 East Java Province Development Plan Deliberation (Musrenbang) (03/04/24). A variety of superior products from the Ijen Geopark, ranging from culinary, handicrafts, to environmentally friendly products attract the attention of visitors and Musrenbang participants. The presence of GeoProducts of the Ijen Geopark in Musrenbang East Java is an effort to promote the potential of the local economy and improve the welfare of the people in the Ijen Geopark area. The variety of products offered is not only unique and high-quality, but also has a thick story and cultural value. The presence of Geoproducts of the Ijen Geopark in the East Java Musrenbang is expected to be a positive step in encouraging the local economy and improving the welfare of the people in the Ijen Geopark area.

Sustainable Geotourism Ijen Geopark

Sustainable geotourism is a specialized form of tourism that emphasizes the responsible use and conservation of geological resources while promoting local community development and environmental protection. This approach prioritizes the conservation of geological heritage, ensuring that unique geological sites and formations are preserved for future generations. It actively involves local communities in tourism

planning and decision-making processes, helping to ensure that the benefits of geotourism, such as economic opportunities and cultural preservation, are shared with residents (Özgeriş & Karahan, 2021). Additionally, sustainable geotourism contributes to local economies by generating income and employment opportunities while promoting environmental stewardship. This holistic approach seeks to balance the enjoyment of natural attractions with the imperative of preserving them, ultimately supporting both local communities and global sustainability efforts.

To support sustainable geotourism in Ijen Geopark, it is necessary to need several parties in its implementation. Like conservation efforts from the integrity of geological resources from the Ijen Geopark, there needs to be a role for the government as a policy and regulatory maker. This protection is important to ensure that unique and valuable geological features can be enjoyed by current and future generations without being damaged or degraded (Brilha, 2018). One of the key aspects of this effort is physical protection. Maintaining geological structures, such as rock formations, fossils, and minerals, from physical damage due to human or natural activities is a top priority. This includes measures such as restricting access to sensitive areas to prevent damage caused by visitors or other potentially destructive activities. In Ijen Geopark, there are policies or regulations that protect geoheritage in Ijen Geopark. There are several regulations made by the government, such as the Regulation of the Minister of Energy and Mineral Resources of the Republic of Indonesia Number 1 of 2020 concerning Guidelines for the Determination of Geological Heritage (Geoheritage), then there is the Banyuwangi Regent Regulation Number 13 of 2020 concerning the Development of Geopark Areas, and the Bondowoso Regent Regulation Number 43 of 2022 concerning the Protection of the Geological Area of the Ijen Geopark Area of the Bondowoso Region.



Figure 0.2 Singo Ulung



Figure 0.3 Petik Kopi Dance

In addition to geological conservation efforts, cultural preservation efforts in the Ijen Geopark also need to be respected and preserved. Ijen Geopark has cultural values in it such as Singo Ulung and Petik Kopi Dance both of these cultures are part of the intangible cultural heritage contained in the Ijen Geopark area. Singo Ulung culture is a performing arts tradition that combines elements of dance and drama, where dancers wear costumes resembling gallant lions. In addition, there is the Petik Kopi Dance, the Petik Kopi Dance is a dance performance art that depicts female coffee farmers whose daily lives seem simple picking coffee beans to be harvested. These two cultures were



once displayed in the 204th anniversary of Bondowoso with one of the themes "Ijen Geopark" with a series of cultural parade activities on August 19, 2023 (Wahyudi, 2023). The appearance of the two cultures is part of the preservation of the culture in the Ijen Geopark.

The involvement of indigenous peoples or local communities is an important element in supporting sustainable geotourism. The community is not only involved as economic beneficiaries of the increase in the number of tourists, but also plays an active role in maintaining and promoting the uniqueness of Ijen Geopark. Based on an interview conducted by the author with Bani Wimala from the Ijen Geopark Management Agency, Bani explained that Ijen Geopark must be able to protect and embrace indigenous peoples. In the Ijen Geopark area, especially in Banyuwangi Regency, there is the Osing Tribe. The approach taken by the Ijen Geopark Management Agency to the Osing Tribe community received a positive response. In addition, Bani Wimala added that the Management Agency also collaborates with the surrounding community as partners in the management of the Ijen Geopark. The community is also involved in the Ijen Geotrail program, which is one of the geotourism modules. Geotrails are thematic trails designed for educational purposes, introducing natural sciences such as geology, geography, and biology. This trail allows visitors to understand natural phenomena as well as geological heritage along the way in an engaging and easy-to-understand way (Drápela, 2023). The community here can be involved as economic actors who support the Ijen Geotrail geotourism program. The local community here is a homestay provider, a culinary business actor, and can also be part of the Tourism Awareness Group (Pokdarwis) from the villages located in the Ijen Geopark.

CONCLUSION

The designation of Ijen Geopark as a UNESCO Global Geopark has had a significant impact on local economic growth through sustainable tourism development. By raising its unique geological and cultural potential, Ijen has managed to attract global attention, increasing the number of tourist visits. This impact can create new jobs, open entrepreneurial opportunities, and provide empowerment for local communities, especially those living around geopark areas. However, to maintain the sustainability of this economic growth, prudent management efforts are needed, especially in maintaining a balance between increasing the number of tourists and preserving the environment. The fragile ecosystem in the geopark area requires special attention so that there is no damage due to the pressure of mass tourism (over-tourism). This requires a firm policy in limiting the number of visits or directing tourists to more environmentally friendly activities. The distribution of economic benefits also needs to be considered. While economic improvement has been felt, it is important to ensure that the benefits are felt by all groups, including the more marginalized groups in society. This can be achieved through community involvement in all forms of tourism programs made by the Ijen Geopark manager. The cultures in Ijen Geopark must also be preserved. Overall, sustainable tourism in Ijen Geopark is a successful model in



balancing economic growth and environmental conservation, offering a path to long-term prosperity by preserving the uniqueness and natural and cultural richness of the area.

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