

Development Strategy of Maros Geopark as a Geotourism Destination Community-Based in Maros Regency of South Sulawesi

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Abstract

The development of geoparks in Indonesia, particularly due to their unique geological features and economic potential, has garnered significant attention. Initially unfamiliar to many, geoparks have been widely accepted without significant social disruption or livelihood displacement, contributing positively to local economic growth. This research investigates the strategy for developing Maros Geopark into a geotourism destination through community participation in Maros Regency, South Sulawesi, Indonesia. The study aims to contribute theoretical insights and practical strategies for tourism destination development, with a specific focus on community involvement in leveraging Maros Geopark's potential. Employing a qualitative descriptive approach, data were collected through interviews, field observations, and documentation to assess the current conditions and potential of Maros Geopark. The findings emphasize the crucial role of community participation in enhancing tourism infrastructure, accommodation, and cultural experiences within the geopark. Proposed strategies include improving accessibility, developing local accommodations, enhancing dining options, and promoting cultural performances to enrich the visitor experience and stimulate economic growth within the Geopark and surrounding areas.

Keywords: Geopark Development, Geotourism, Community Participation, Maros Regency.

INTRODUCTION

The development of geoparks in Indonesia has garnered significant attention due to their unique geological features and economic potential. While initial public awareness regarding geoparks was limited, their establishment has been largely met with social acceptance, with minimal concerns over livelihood displacement. This has resulted in a positive impact on local economic development, as documented by Wendita (2019), Asba et al. (2020) and Rahman (2019).

Indonesia's rich geological diversity, complemented by its biodiversity and cultural heritage, presents significant opportunities for further geopark expansion. This could position Indonesia as a leading host of world-class geoparks, offering substantial economic and conservation value (Lestari & Indrayati, 2022; Sahib et al., 2019; Duli et al., 2023).

The primary function of a geopark is to foster community economic development through geotourism. While the immediate economic impact may not rival that of mining or forestry, geoparks are envisioned as a more sustainable long-term economic resource (Yuliawati et al., 2022; Oda et al., 2020; Duli, 2018; Rahman et al., 2019).

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Figure 1. Location of Geoparks in Indonesia (Muslim, et.al., 2022)

Furthermore, UNESCO established the Unesco Global Geopark based on recommendations from the Indonesian National Geopark Committee (KNGI) after a certain area was declared a national geopark for at least one year (Muslim, et al., 2022). As of January 2023, Indonesia has ten UNESCO Global Geoparks: *Batur*, *Gunung Rinjani*, *Gunung Sewu*, *Ciletuh*, *Danau Toba*, and *Belitong*, recently joined by *Maros*, *Ijen*, *Merangin*, and *Raja Ampat*. Additionally, there are twelve national geoparks and over seventeen national geopark candidates. The National Development Planning Agency (Bappenas) has set a target of establishing twelve global geoparks and thirty-one national geoparks (<https://rangeopark.bappenas.go.id>). Geopark development in Indonesia has three main pillars: conservation, education and sustainable community economic development. Conservation includes geology, biodiversity, and culture, known as the ABC concept. Apart from encouraging conservation, the development of geoparks as tourism destinations also aims to encourage community and regional economic growth through community empowerment.

There are three main pillars of geopark development, namely as a conservation area, education and sustainable community economic development. As a conservation area, the geopark is expected to become a place for geological conservation, biodiversity conservation and cultural conservation, or known as the ABC concept.

For example, cooperation between Germany and other European countries in the development of geoscience and tourism has produced positive results in its application.

Table 1. Geoparks And Their Types in Indonesia from Various Sources

UGGp (UNESCO Global Geopark)	National Geopark	Aspiring National Geopark
Gunung Batur	Sihanok Maninjau	Ternate
Gunung Sewu	Sawahlunto	Ujung Kulon (Pandeglang)
letuh Palabuhan Ratu	Silokek	DIY (Yogyakarta)
Rinjani Lombok	Natuna	Ende
Danau Toba	Pongkor	Sumbar

Belitong	Karangsambung-Karangbolong	Lebak
Maros Pangkep	Bojonegoro	Dieng
Ijen	Meratus	Sangkurilang
Merangin	Tambora	Gorontalo
Raja Ampat		Tulungagung
		Bayat (Klaten)
		Kerinci
		Bromo Tengger Semeru
		Bangka
		Bawean
		Matano
		Suoh (Lampung)

Table 2. Data On Visits by Foreign Tourists to South Sulawesi 2019-2023

No	Year	Number of Tourists
1	2019	17.771
2	2020	3.598
3	2021	0
4	2022	5.914
5	2023 (January-November)	8.827

Source: Website of the South Sulawesi Province Central Statistics Agency and the South Sulawesi Province Culture and Tourism Office.

The development of geoparks, as outlined in Article 11, paragraph (1) of Presidential Regulation Number 9 of 2019, aims to preserve geoheritage for research, education, and sustainable development. This initiative has been further strengthened by the Minister of Energy and Mineral Resources Regulation Number 31 of 2021, which provides a framework for designating national geoparks. This research focuses on developing a community-based strategy to transform the Maros Geopark into a thriving geotourism destination. The objective is to contribute both theoretically and practically to tourism destination development, with a particular emphasis on community engagement in the evolution of Maros Geopark.

Tourism Attraction Development Concept

Development is the process or method of making progress towards desired goals (KBBI 1986, Balai Pustaka, Jakarta). It involves efforts to move in a better direction, causing both qualitative and quantitative changes and growth. In terms of quality, development aims to enhance the appeal of tourist attractions by improving service quality (Asba et al., 2019). In terms of quantity, it seeks to expand the diversity of tourist attractions and accommodations.

To effectively develop a tourist attraction, strategic implementation is essential to make the attraction appealing and highly marketable. These strategies include comprehensive promotion of tourism packages, encompassing both natural and artificial attractions, through development programs such as: 1) Improving integrated services at tourist entry gates to facilitate easier access for tourists, and 2) Enhancing services at tourist destinations, including both primary and supporting activities.

According to Yoeti (2013, p. 55), three factors determine the success of developing tourism as an industry: 1) The availability of tourist objects and attractions, which encompass anything that attracts people to visit a tourist area, such as natural beauty, cultural heritage, local customs, traditional festivals, and religious ceremonies. 2) The existence of accessibility, which includes the infrastructure and facilities that enable tourists to visit a destination. 3) The availability of amenities, which are tourism facilities that provide services to tourists during their travels, whether domestically or internationally.

The local community, as the recipient of tourists, plays a crucial role in the tourism development process to ensure its success. The community can undertake various roles, such as: 1) Becoming tour guides, 2)

Becoming tourism entrepreneurs, 3) Revitalizing past cultures, and 4) Developing tourism institutions.

According to Nilsson et al. (2016), the community's role in development is through their behavior and awareness, with each community member feeling responsible and participating in the tourism sector, a concept known as 'tourism awareness'.

The Concept of Geoparks

A Geopark is a unified geographical area with valuable geological heritage (geosites) and landscapes that interlink geological, biological, and cultural aspects. It is developed on three main pillars: education, conservation, and local community economic development. Geoparks are managed sustainably, involving the community to enhance their understanding and awareness of the earth and the environment (Kusworo – Geological Agency, 2022). Geoparks, or Earth Parks, are a concept initiated by UNESCO, the United Nations Educational, Scientific and Cultural Organization, as a model for enhancing the protection of the earth's heritage (geoheritage).

Geotourism Overview

Hose (2012) describes geotourism, based on previous research, as an activity that develops interactive spaces and services for tourists. It emphasizes the social values and benefits of geological and geomorphological features to ensure their preservation and utilizes them for education, tourism, and community development. Hose also addresses issues of welfare and protection. Dowling and Newsome (2006) expanded on Hose's understanding, stating that geotourism reflects the values of geological and geomorphological aspects. They offer a new definition of geotourism as: “Tourism closely related to geological and geomorphological potential, and natural resources in the form of landscapes, fossil forests, and minerals, with an emphasis on understanding geological processes and their outcomes.” Hose (2012) further explains that geotourism is a form of sustainable specialty tourism, supported by various activities, and includes the promotion and protection of landscapes and wildlife.

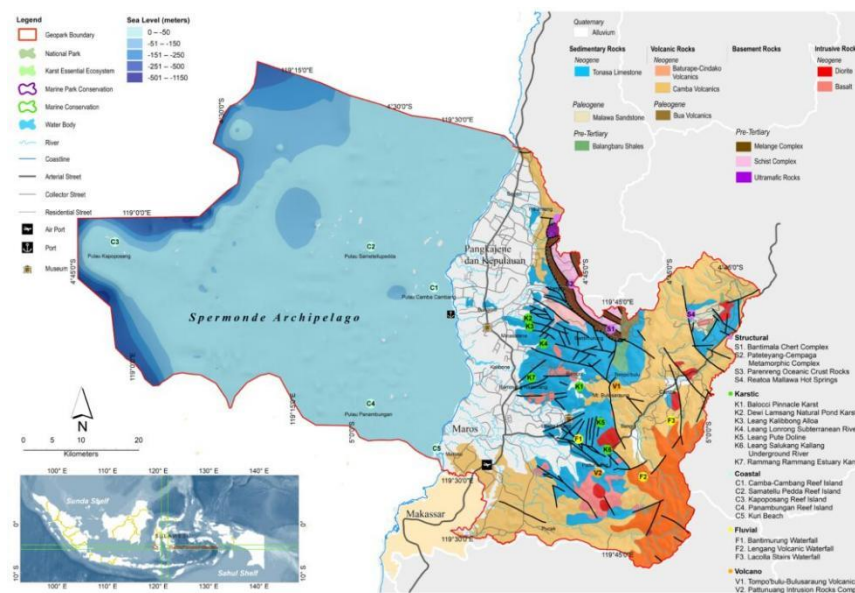


Figure 2. Maros Geopark Geosite

Sources: <https://geoparkmarospangkep.id/geosites-2/>

The Maros Geopark, with its many unique natural features, is already a valuable tourist attraction. However, much of its natural potential is still being researched and verified by experts in the field of geology.

The Concept of Tourism

From a sociological perspective, tourism activities encompass at least three dimensions of interaction:

cultural, political, and business. In the cultural interaction dimension, tourism provides a platform for the cultural acculturation of various nations and ethnicities. Through tourism, the culture of traditional agrarian societies blends and interacts with the culture of modern industrial societies. These cultures often come into contact, adapt to one another, and frequently create new cultural products.

In the political interaction dimension, tourism activities can lead to two extreme possibilities: (1) fostering friendship between ethnic groups and nations, and (2) causing forms of oppression, exploitation, or neocolonialism. However, through tourism, each nation and ethnicity can also learn about the characteristics, interests, and desires of other nations and ethnicities (Sunyoto, 2011, p. 33; Duli et al., 2019; Sari et al., 2019).

Method and Sources of Data

Sugiyono (2010, p. 2) states that a research method is essentially a scientific way to obtain data with specific purposes and uses. Based on this, there are four key terms to consider: scientific method, data, purpose, and use.

Type of Research

This research employs a Qualitative Descriptive approach. Qualitative descriptive research describes existing conditions without applying treatment or manipulation to the variables under study. It focuses on obtaining data as they naturally occur, emphasizing the significance of the results. This type of research centers on current issues as they exist during the study, particularly on the extent of Community Participation in the Development of Maros Geopark. According to Sugiyono (2010, p. 15), qualitative descriptive research is a method grounded in the philosophy of postpositivism, typically used to study naturalistic objective conditions where the researcher acts as the key instrument.

Data Collection Technique

The data collection techniques employed in this research were comprehensive and multifaceted, ensuring a robust and thorough gathering of relevant information and insights. These techniques included in-depth interviews, which provided personal perspectives and detailed narratives from participants. Field observations allowed the researchers to directly witness and record behaviors, interactions, and environmental contexts, offering a rich, real-time understanding of the phenomena under study. Additionally, extensive documentation, such as reviewing relevant documents, records, and archival materials, was utilized to corroborate and expand upon the data obtained from interviews and observations.

The Scope of Research

The scope of the research issues discussed in this study involves identifying the existing conditions of Maros Geopark, both physical and non-physical aspects. The physical condition will examine buildings, structures, open spaces, village density, and aesthetics. The non-physical aspect will identify socio-cultural and economic aspects of the population. In formulating the next problem statement, it will review facts found in the field referring to the dimensions/elements of tourism development potential based on community participation, thereby identifying development issues. Consequently, the subsequent problem statement will design strategies for the tourism development of Maros Geopark involving community participation.

FINDINGS AND DISCUSSION

Rammang-Rammang Geotourism Development Strategy Based on Community Participation

The *Rammang-Rammang* geotourism development strategy based on community participation can be seen from several aspects of supporting facilities and infrastructure, such as:

Transportation Facilities

Accessibility to the location is assessed based on access from the nearest city to attractions within the area. Transportation used to reach the location includes two-wheeled vehicles such as motorcycles, and four-

wheeled vehicles such as cars and buses. The road leading to the location is paved and in good condition. The distance from Makassar City to the area is approximately 40 km, requiring no more than 60 minutes to reach the location. River transportation is facilitated by boats with a capacity of 7-10 people. Boat access is limited to mornings until evenings. *Sungai Pute* is a tidal river greatly influenced by the ebb and flow of seawater. During low tide, the river is inaccessible. Low tide typically occurs in the late afternoon. It is recommended to navigate the river while the sun is still out due to insufficient lighting around *Sungai Pute*. This aligns with Palloan's et al., (2014) view that *Sungai Pute* is a tidal river, especially around Pier 1, which is closer to the sea, causing changes in flow speed and direction in the morning and afternoon.

"At present, there are 200 tourism boats available, but only around 80 are active. The average daily visitor count reaches 600 people." Ridwan (67), Business Operator, Wednesday, April 24, 2024

Accommodation Facilities

Accommodation options are limited within a 15 km radius of the *Rammang-Rammang* karst landscape, particularly within the area itself. Existing accommodations consist primarily of homestays with limited room availability

"Here, there are 5 homestays in the form of traditional South Sulawesi stilt houses owned by local communities located in different areas within the region. These stilt house homestays consist of 3-5 rooms each. Some are situated around Pier 1 and 2. Others are located within *Kampung Berua*, accessible only by boat with operating hours from morning until evening. Additionally, there is one eco-lodge accommodation near Pier 2, comprising 6 rooms." Ridwan (67), Business Operator in *Rammang-Rammang*, Wednesday, April 24, 2024.

Food and Drink Facilities

Food and beverage stall facilities at tourist destinations are crucial in the tourism development strategy of the area, as they are essential amenities that influence the length of tourists' visits and overall experience. Regarding the food and beverage offerings in the *Rammang-Rammang* ecotourism area, it can be concluded that they are not yet optimal. The current variety of food available includes standard fare such as noodle soup with meatballs and local-made rice cakes (*lontong*), while beverage options consist of hot drinks (coffee, tea) and cold drinks (milkshakes and bottled drinks). These offerings are comparable to those found at other roadside eateries outside the *Rammang-Rammang* karst area and do not reflect the unique character or potential of the ecotourism destination.

"If you want traditional drinks like *Sarabba* or *Ballo Te'ne*, you have to order them in advance, at least one day beforehand." H. Kamma, Resident of *Salenrang* Village, Wednesday, April 24, 2024

Sarabba, a non-alcoholic traditional drink from South Sulawesi, particularly in Makassar and surrounding areas, is made from ginger, brown sugar, and coconut milk. Conversely, *ballo te'ne*, or sweet palm wine, requires a day's advance order for tapping from the *nipa* palm trees near the river, available in the morning or evening. Notably, *ballo te'ne* is very affordable and is believed to have potential benefits in preventing or treating diabetes and insomnia.

Tourist Attraction

In general, to determine the attractiveness of a tourist attraction, there are two indicators, namely:

Natural Panorama

The tourism site is nestled within the picturesque and refreshing mountainous terrain, offering a comfortable environment for visitors. Secondary data indicates that the site is situated at an elevation of 1000 meters

above sea level (MDPL). While the natural landscape is inherently conducive to tourism, the support programs offered by the Department of Culture and Tourism are currently limited, primarily due to budgetary constraints. This aligns with Samsuridjal's (1997) theory, which suggests that the natural beauty indicator has been met. However, further development by the Department of Culture and Tourism of Maros Regency is necessary to fully optimize the site's potential.

Performing Arts

Performing arts can serve as a significant indicator of tourist attraction, encouraging tourists to visit particular destinations. The performing arts offered by these tourist attractions are typically local cultural performances unique to the local community, which may not be found or performed elsewhere. Consequently, tourists may visit these destinations specifically to enjoy such artistic performances. Certain artistic performances are traditionally held once a year, adding to their uniqueness and appeal. Besides a beautiful panorama, performing arts are a crucial factor, as suggested by Samsuridjal (1997), which must be considered in enhancing the attractiveness of a tourist destination.

Souvenir

To further enhance the appeal of *Rammang-Rammang* as part of the Geopark, a diverse range of souvenirs is now available for purchase. These unique souvenirs not only serve as mementos of visitors' experiences but also provide local artisans with opportunities to participate in the creative economy. Similar to other tourist destinations, souvenir shops complement the visitor experience while fostering community involvement in tourism development.

Facilities and Infrastructure

Infrastructure is a crucial aspect that must be prioritized to provide services to tourists in the development of tourism. The existing infrastructure in the *Rammang-Rammang* karst tourist area needs immediate improvement and enhancement. Infrastructure such as road availability, railway tracks, airports, electricity, clean water, and telecommunication systems are essential. The infrastructure at the *Rammang-Rammang* karst tourist site is currently inadequate, as evidenced by recent bridge construction, road works by the local government for access to tourist spots, and requests for footpaths by local communities to improve access within the *Rammang-Rammang* tourist area, aiming to create a comfortable experience for tourists.

Potential Supporting Facilities at Rammang-Rammang Tourism Site

There are various tourist attractions in Maros Regency that are highly suitable for development as flagship tourist destinations, which still hold great promise for the local economy. One such attraction is the *Rammang-Rammang* geotourism area, now one of the leading tourist destinations in South Sulawesi Province. Therefore, after being recognized as a cultural heritage by UNESCO, the presence of the *Rammang-Rammang* Tourist Attraction now offers significant opportunities to the local government, both at the local, national, and even international levels, to participate in planning and forming desired development strategies for Maros Regency.

Leang-Leang Cave Geotourism Development Strategy

The Prehistoric Park of *Leang-Leang* is located on the main road of *Leang-Leang* Village, *Kampung Leang-Leang*, *Kalabbirang* Village, *Bantimurung* District, Maros Regency, South Sulawesi Province. This area is a designated site established by Decree No. 240/M/1999, dated October 4, 1999, issued by the Minister of Education and Culture (Prof. Dr. Juwono Sudarsono, M.A.). The planning area of the Maros-*Pangkep* Museum covers an area of 7,177 hectares. The physical boundaries of the museum planning area are as follows: North Boundary: river; West Boundary: road to Maros - Bone; South Boundary: limestone hills; East Boundary: rice fields.

Leang-leang Tourism Potential

The *Leang-Leang* Cave Complex in Maros Regency is one of the most significant historical tourist attractions among several prehistoric cave complexes in South Sulawesi. Scholars agree that the prehistoric cave relics

in South Sulawesi are part of the *Toala* cultural heritage (Preston et al., 2021). Field data shows that out of 40 cave sites, only two caves, *Leang Pattae* and *Leang Petta Kerre* within the *Leang-Leang* Prehistoric Park, have been utilized for tourism purposes, while the other 38 caves have primarily been used for scientific research needs. Culturally, the *Leang-Leang* Prehistoric Park holds at least four important values. Firstly, its Historical Significance: These cultural resources serve as substantial evidence of events from prehistoric and historical times, closely linked to historical figures, or as evidence of significant developments in specific fields. The historical significance of the *Leang-Leang* Cave Complex lies in the existence of two distinct cultures: the pre-Austronesian and Austronesian cultures. These cultures, known collectively by archaeologists as the *Toala* culture, developed during the Pleistocene era around 31,000-19,000 BC, when the caves were inhabited by pre-Austronesian humans. Additionally, the cave wall paintings at *Leang-Leang* provide evidence of some of the oldest artistic expressions in Southeast Asia.

Previously, the main occupations of residents around the tourist attraction were limited to farming, employment in various sectors, and other traditional roles. However, the existence of this tourist attraction has opened up new business opportunities that can be pursued in their spare time.

Transportation Facilities

For tourists from Maros City, visiting *Leang-Leang* Park in South Sulawesi is no longer difficult. However, tourists from outside the city, or even abroad, might feel confused and afraid of getting lost. To address this concern, tourists from outside Maros can use Google Maps installed on their smartphones to navigate to *Leang-Leang* Park in Maros, South Sulawesi. Traveling by personal vehicle, whether a car or motorcycle, is more enjoyable than using public transportation. However, if using public transportation such as a bus or other forms of transport, tourists can stop at the city bus terminal or their destination village, then continue by motorcycle taxi or their own vehicle to reach *Leang-Leang* Park.

Accommodation Facilities

Leang-Leang Park in Maros, South Sulawesi offers a variety of amenities catering to tourists. These include designated parking areas, prayer rooms, restroom facilities, and accommodations. These amenities are crucial for enhancing the comfort and convenience of visitors during their stay at the park. Additionally, *Leang-Leang* Park is known for its water tourism attractions, providing an opportunity for tourists to explore and enjoy the natural beauty of the area. Whether visitors are arriving from Maros City or from other parts of Indonesia or abroad, these facilities ensure that their visit is both enjoyable and hassle-free, contributing to a positive tourism experience in South Sulawesi.

Eating and Drinking Facilities

At the *Leang-Leang* tourist attraction in Maros, South Sulawesi, visitors can find various dining and refreshment options conveniently located near the city center. These eating places are strategically positioned close to residential areas and the culinary hub of Maros City, offering a range of local delicacies and refreshments. These dining facilities cater to both local residents and tourists, providing a taste of Maros' culinary offerings amidst the natural beauty and historical significance of the *Leang-Leang* area. Whether visitors are exploring the caves or enjoying other attractions in the region, these dining options ensure that they have convenient access to food and beverages during their visit to Maros.

CONCLUSION

In conclusion, the development of Maros Geopark into a geotourism destination, driven by community participation, has demonstrated significant potential for local economic growth and sustainable tourism. Through a comprehensive qualitative descriptive approach, the research highlighted the crucial role of community involvement in enhancing tourism infrastructure, accommodations, and cultural experiences. The strategies proposed—improving accessibility, developing local accommodations, enhancing dining options, and promoting cultural performances—are geared towards creating a more attractive and inclusive tourism environment.

These efforts not only aim to enrich the visitor experience but also to stimulate economic growth and preserve the unique geological, biological, and cultural heritage of the Maros Geopark. The findings underscore the

importance of integrating community participation in tourism development to ensure sustainable and equitable benefits for all stakeholders involved. By focusing on these strategies, Maros Geopark can position itself as a leading geotourism destination, offering valuable insights and practical approaches that can be replicated in other regions with similar potential.

REFERENCES

- Asba, A. R., Rahman, F., & Evita, A. L. (2019, May). Save the Forest and Biodiversity: A Cultural Anthropology Perspectives on Kalumpang Customary to Preserve their Ecological Living. In IOP Conference Series: Earth and Environmental Science (Vol. 270, No. 1, p. 012005). IOP Publishing.
- Dowling, R. K., & Newsome, D. (Eds.). (2006). Geotourism. Oxfordshire: routledge. Eder, F. W., & Patzak, M. (2004). Geoparks—geological attractions: a tool for public education, recreation and sustainable economic development. *Episodes Journal of International Geoscience*, 27(3), 162-164.
- Duli, A., Nur, M., Chia, S., & Ramli, Z. (2019, October). The role of radiocarbon analysis in determining the chronology of Erong culture in Tana Toraja. In *Journal of Physics: Conference Series* (Vol. 1341, No. 8, p. 082008). IOP Publishing.
- Duli, A. (2018). Reflections on the social and cultural aspects of the megalithic site of Onto, Bantaeng, South Sulawesi. *terra australis* 48, 313.
- Duli, F. Hasyim, M. & Soma, A. S. (2023). Development of Leangleang Ancient Park Area as a Leading Destination Based on Natural Tourism, Education and Special Interest, *ijmst*, 10(2),1850-1867
- Hose, T. A. (2012). Geotourism and geoconservation. *Geoheritage*, 4(1), 1-5.
- Hose, T. A. (2006). Geotourism and interpretation. In *Geotourism* (pp. 221-241). Routledge.
- Lestari, F., & Indrayati, I. (2022). Pengembangan Kelembagaan dan Pembiayaan Geopark di Indonesia: Tantangan dan Strategi. *Journal of Regional and Rural Development Planning*, 6(2), 102–122. <https://doi.org/10.29244/jp2wd.2022.6.2.102-122>
- Muslim, D., Zakaria, Z., Rachmat, H., Iqbal, P., Muslim, G. O., Sadewo, M. S., & Muslim, F. N.(2022). Identification of Geodiversity and Geosite Assessment around Geohazard Area of Suoh Aspiring Geopark in West Lampung, Sumatra, Indonesia. *Resources*, 11(11), 104. <https://doi.org/10.3390/resources11110104>
- Nilsson, D., Baxter, G., Butler, J. R., & McAlpine, C. A. (2016). How do community-based conservation programs in developing countries change human behaviour? A realist synthesis. *Biological Conservation*, 200, 93-103.
- Oda, S., Jompa, J., & Duli, A. (2020, March). Youth potential in developing marine tourism and reducing destructive ecological changes on remote island. In IOP Conference Series: Earth and Environmental Science (Vol. 473, No. 1, p. 012069). IOP Publishing.
- Palloan, P., Ihsan, N., Tiwow, V.A. (2014). Studi Penentuan Jenis Aliran Sungai Pute Kawasan Karst Rammang-Rammang Kabupaten Maros. *Simposium Fisika Nasional (SFN XXVII) [16-17 Oktober 2014]*. Denpasar-Bali
- Perston, Y. L., Moore, M., Suryatman, Langley, M., Hakim, B., Oktaviana, A. A., & Brumm, A. (2021). A standardised classification scheme for the Mid-Holocene Toalean artefacts of South Sulawesi, Indonesia. *PLoS One*, 16(5), e0251138.
- Rahman, F., Akhmar, A. M., & Amir, M. (2019, May). The practice of local wisdom of Kajang people to save forests and biodiversity: A cultural-based analysis. In IOP Conference Series: Earth and Environmental Science (Vol. 270, No. 1, p. 012038). IOP Publishing.
- Rahman, F. (2019, February). Save the world versus man-made disaster: A cultural perspective. In IOP Conference Series: Earth and Environmental Science (Vol. 235, No. 1, p. 012071). IOP Publishing.
- Sahib, H., Rahman, F., Duli, A., & Asba, A. R. (2019, May). Customary Forest Conservation through Informal Knowledge System of Ammatowa Community. In IOP Conference Series: Earth and Environmental Science (Vol. 270, No. 1, p. 012042). IOP Publishing.
- Samsuridjal, K. (1997). *Peluang di Bidang Pariwisata*. Mutiara Sumber Widya.
- Sari, P., Palangngan, S. T., Mulyaningsih, E., & Rahman, F. (2019, October). Environmental expression using discourse analysis. In IOP Conference Series: Earth and Environmental Science (Vol. 343, No. 1, p. 012149). IOP Publishing.
- Sugiyono. (2010). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, kualitatif, dan R&D*. Bandung: Alfabeta
- Sunyoto, S. (2011). *Analisis regresi untuk uji hipotesis*, Yogyakarta. Caps
- Wendita, S. A. T. (2019). Pengembangan Geowisata dan Perubahan Sosial-Budaya Masyarakat di Area Geopark Ciletuh-Palabuhanratu. *Umbara*. 4(1). 31-34
- Yoeti, O. A. (2013). *Pemasaran Pariwisata*. Edisi Revisi. Bandung: CV. Angkasa
- Yuliawati, A. K., Rofaida, R., Gautama, B. P., Hadian, M. S. D., & Arayanti, A. N. (2022). Promoting Geo-Tourism at UNESCO Global Geo-Park Belitong through GeoProduct Development in Small Medium Enterprise. *International Journal of Communication and Society*, 4(1), 12–20. <https://doi.org/10.31763/ijcs.v4i1.424>.