

Natural Tourism Landscapes on The Slope of Merbabu

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ABSTRACT

The natural tourism landscape in the utilization zone on the slope of Merbabu has experienced significant development in the utilization of the area's footprint in the form of an area utilization permit as a site design. The slope of the Merbabu area is an area that provides environmental services and natural tourism. This study examines using business and public spaces as a community interaction to exploit nature tourism. The study method developed is a combined qualitative and quantitative approach (mixed methods) which are descriptive qualitative, and quantitative; combined analysis (mixed methods) is an analysis of data collection using tests, questionnaires, and triangulation (combined). The results showed community interaction in the use of business and public space, especially in the utilization zone of the Merbabu slope area. In conclusion, the form of business and public space has the characteristics of alternative tourism

Keywords: natural tourism landscape, Mandala Merbabu



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1. Introduction

The current trend of global tourism development has changed two sides (demand and supply). There has been a shift in the characteristics and patterns of consumer behavior (tourists). A research and research result conducted by booking.com to 22,000 travelers in 29 countries in the world predicts that there are eight trends in global tourists, including (1) tourists become more aware of the environment; (2) choose a destination wisely; (3) appreciate the tourist experience more; (4) maximize vacation time; (5) high enthusiasm for technology; (6) take a tour while increasing work experience; (7) merge territorial boundaries; and (8) tourism content is increasingly needed [1]. In line with this, Arief Yahya, a former Indonesian tourism minister from 2014 - 2019, said the development of global tourism followed the changing patterns of tourist behavior, which tended to be more independent and individual (kompas.com, 2019). Furthermore, Font, X., & Tribe J [1] explains that the increase in education, income, and status, increased interest in popular culture, and high dependence on technology has resulted in a shift in the trend of tourist travel forms which are becoming more individual, in groups. Small and interested in the pursuit of experience.

Changes in global tourist behavior patterns will trigger changes in tourism's supply side, which, according to (Durasevic, 2014), is referred to as tourism evolution. In this regard, tourist destinations need to accommodate changes in the characteristics and patterns of travel by tourists, including institutional development, setting new policies, to shifting the direction of tourism development approaches. The shift in global tourism trends

will have an impact on the gradual abandonment of the form of mass tourism. Another consequence is the increasing share of opportunities in tourism development in the individual tourist segment or in small groups that offer thematic tourism activities, Kotoua, S., & Ilkan, M. 2017[2].

Thematic tourism offers tourism products with specific themes through the use of natural or cultural wealth generated through references such as landscapes, particular activities, food, history, or cultural reality. It is accessible by transportation to and around the theme areas set. In many cases, thematic tourism development is more directed toward cultural or artificial tourist attractions [3]. Thematic tourism can provide tourists with experiences, offering destinations and attractions to see and involving feelings, sensations and activities[3].

The natural tourism landscape in the natural use zone has experienced significant development in utilizing the area's footprint in the form of an area utilization permit as a site design [4]. Merbabu slope is an area that provides environmental services and natural tourism. Following Law Number 5 of 1990 concerning Conservation of Natural Resources and Their Ecosystems, Mount Merbabu National Park (TNGMb) as a conservation area has the following main functions: (1) Protection of ecological processes of life support systems (2) Preservation of animal and plant diversity and their ecosystems and (3) Sustainable use of biological resources and their ecosystems in the form of research, science, education, support for cultivation and natural tourism [5]. Mount Merbabu National Park is an essential area for biodiversity conservation and environmental services. Sustainable forest management, particularly in conservation areas such as Mount Merbabu National Park, plays a vital role in preserving biodiversity and preventing ecosystem degradation, as outlined by Kusmana (2011) [6]. This management approach is crucial for maintaining the ecological balance while promoting sustainable use of natural resources. The development of ecotourism in the Mount Merbabu National Park area not only aims to provide educational and recreational experiences for visitors but also supports the conservation of natural resources and cultural heritage. New business models that integrate biodiversity conservation with ecotourism development have been proposed by Bishop et al. (2009), highlighting innovative approaches to sustainable tourism [7]. These models emphasize the need for a balanced approach that benefits both the environment and the local communities.

The manager of the Mount Merbabu National Park has emphasized the importance of sustainable management strategies, which include utilizing environmental services, biodiversity, and natural tourism resources to maintain ecological balance. Strategies for ecosystem rehabilitation and recovery, as discussed by Nugroho et al. (2021), are crucial for maintaining the sustainability of the Merbabu National Park's ecosystems [8]. These efforts are vital in ensuring that the park continues to provide valuable environmental services and supports biodiversity conservation. The manager of the Mount Merbabu National Park, in one of the management missions contained in the Management Plan of the Mount Merbabu National Park for 2012 – 2023 [9], namely developing the use of environmental services in the form of water resources, natural tourism, and biodiversity. Sustainably. The utilization function is a Strategic Plan. It emphasizes the direction of policies and management strategies, one of which is increasing the area's economic value by utilizing natural tourism objects and attractions in the TNGMb area, intensifying and optimizing the use of water resources sourced from within the TNGMb area [10].

As a tourist destination, the TNGMb area must prepare itself as an ecotourism area, with the concept of developing and implementing tourism for regional sustainability, active community participation, and developing tourism products that combine elements of education and tourism.

The economic development of the surrounding area and controlling the negative impact of the utilization and development of natural tourism significantly affects the carrying capacity of Fandeli. C, Muhamad [11]. There is challenging for TNGMb managers to develop comprehensive and integrated ecotourism development efforts in managing tourism potential through preparing a Master Plan for Ecotourism Development in TNGMb. This Master Plan should be in line with the applicable laws and regulations and outlined in a policy and development strategy concerning strategic issues that will impact the main functions of TNGMb management as a conservation area [12].

The Nature tourism site design divides Mount Merbabu National Park's utilization zone into business and public spaces. Business space is part of the utilization zone of Mount Merbabu National Park because of its location, condition, and potential, which shows the benefit of exploiting natural tourism facilities. In contrast, public space is part of the utilization zone because of its location, condition, and potential. It benefits visitors, management, and exploitation of natural tourism, for the business of providing natural tourism services and supporting natural tourism facilities.

Preparing the site design for natural tourism management in the Mount Merbabu National Park area includes determining public spaces. The function is to support the exploitation of natural tourism services/empowerment of the surrounding community, as well as to determine the business space for the provision of natural tourism facilities based on the potential of natural resources in the area. In addition, supporting factors include the availability of supporting infrastructure for natural tourism activities.

2. Method

This study uses a combination of qualitative and quantitative approaches that are descriptive qualitative, and quantitative; combined analysis is an analysis of data collection using observation, interviews, assessment, and triangulation. This data analysis is inductive (qualitative) and deductive (quantitative). The results of this combination research as data to understand the meaning of and make generalizations [13]. The subjects in this study are parties who can provide clear and precise information on matters/topics following the research objectives, namely the people living around the area. Communities living on the slope of Merbabu are buffer villages that have their way of carrying out their lives on the hill of Merbabu [13]. The communities of the buffer villages on the slope of Merbabu have an extraordinary diversity of religions, cultures, and natural resource potential. Some considerations in determining the research subject are that the community can provide information regarding direct involvement in the early stage planning and the management of the public and business space.

3. Result and Discussion

Social, economic, and cultural conditions

Based on observations that were studied found that socially, economically, and culturally, the condition of the people on the slope of Merbabu have characteristics that are almost the same as those on other mountain slopes. The mountainous natural conditions strongly influence it because it is directly adjacent to the Mount Merbabu National Park area.

The natural conditions of the mountains affect social life, which shows in daily life, such as building houses, dressing, adapting to the environment, and a sense of togetherness and hospitality. Economically, most people grow vegetables for a living. The community's dependence on natural resources in the Mount Merbabu National Park area, such as grass for animal feed and water, is relatively high. Culturally, the population still recognizes the existence of organizational structures and structures within it, and institutions such as Karang Taruna (the youth organization) and farmer groups are still developing. The gotong-royong tradition in rituals such as death, village cleaning, birth, marriage, and building a house is still common. Traditional arts such as Reog, Ketoprak, Kuda Lumping, and Tanen are still well preserved. People's dependence on nature, such as climatic conditions, seasons, and weather, is enormous, so public awareness of preserving nature is quite good. As part of the Merbabu slope ecosystem, the buffer communities on the Merbabu slope have respect for cultural values and customs that are still maintained (Table 1).

Table 1. Tradition analysis is carried out routinely by the supporting communities on the slope of Merbabu

Traditional Ceremonies	Description of traditional and cultural ceremonies
Saparan Tradition	<ul style="list-style-type: none"> Ritual and traditional ceremonies of the Merbabu slope community are every months of Sapar (Javanese calendar), which is helpful as a unifying community. Held on Wednesday, Pahing had a traditional art by holding shadow puppets.
Nyadran Kali	<ul style="list-style-type: none"> It is Carried out five times a year (Saturday Legi or Saturday wage at noon in the month of Mulud at noon, on 14 Ruwah at 13 noon in the month of Sapar.
Merti Dusun Dhawuhan Kali	<ul style="list-style-type: none"> The Javanese people carry out the ceremony, especially in Central Java. Nyadran comes from Sanskrit, <i>sraddha</i>, which means belief. Nyadran is a tradition of cleaning tombs by Javanese people, generally in rural areas. The ceremony is carried out at springs, especially in the river (kali) in the early morning.
Majemukan/pethokan	<ul style="list-style-type: none"> Every 35 days (Selapan, in Javanese), every Kliwon Friday night, a form of prayer to ask for safety throughout the hamlet after a joint meal.
Pethokan	<ul style="list-style-type: none"> On August 17 and Kartini Day, they hold the ceremony with a flag-raising ceremony, joint prayer, and a meal to commemorate the services of the fallen heroes.
Nguwu-nguwuri	<ul style="list-style-type: none"> It is the tradition of cutting dreadlocks, which requires not shaving the hair of babies with dreadlocks until a certain age.

Traditional arts (Table 2) such as Reog, Ketoprak, Kuda Lumping, and Tanen are still well preserved. People's dependence on nature, such as climatic conditions, seasons, and weather, is enormous, so public awareness of preserving nature is quite good and always maintains its sustainability.

Table 2. Description of community and description current condition to cultural tradition in the slope of Merbabu

Cultural Tradition	Score	Description of Community Tradition and Culture	Description Current Condition
The diversity and uniqueness occur in the cultural traditions of the Merbabu slope community.	3	The rituals and traditional ceremonies of the Merbabu slope community, carried out routinely, do not exist anywhere else and have a high uniqueness.	Rituals and traditional ceremonies of the Merbabu slope community are regularly found in
	2	Rituals and traditional ceremonies of the Merbabu slope community are regularly found elsewhere and have moderate uniqueness.	other places and have moderate uniqueness because they are in several different areas.
	1	Rituals and traditional ceremonies of the Merbabu slope community are regularly found elsewhere and have low uniqueness.	

Cultural Tradition	Score	Description of Community Tradition and Culture	Description Current Condition
The diversity and uniqueness occur in the cultural traditions of the Merbabu slope community.	3	The rituals and traditional ceremonies of the Merbabu slope community, carried out routinely, do not exist anywhere else and have a high uniqueness.	Merbabu slope community art is regularly carried out, found elsewhere, and has moderate uniqueness.
	2	Rituals and traditional ceremonies of the Merbabu slope community are regularly found elsewhere and have moderate uniqueness.	
	1	Rituals and traditional ceremonies of the Merbabu slope community are regularly found elsewhere and have low uniqueness.	

Natural Tourism Landscapes in National Parks and Surroundings

The development of alternative tourism in recent years focuses on creating experiences that are more sustainable and beneficial to both nature and local communities, in contrast to conventional tourism. This approach has led to a growing demand for tour packages that highlight unique cultural, natural, and regional features. In the Merbabu slope area, the diversity of tourism products, shaped by distinctive themes and activities, plays a key role in attracting more tourists. The increasing demand for these products and facilities is closely linked to the evolving preferences of travelers. By developing themed attractions, destinations can diversify their tourism offerings (Table 3), catering to both the natural beauty and the unique cultural traditions of the Merbabu slope community.

Table 3. Location the diversity of tourism product in the Merbabu

Section	Resort	Location
SPTN Region I	Semuncar	Genting, Bukit Kinasih (Senden), Gancik (Selo)
	Kalipasang	Gedong Pass (Tajuk),
SPTN Region II	Wekas	Merbabu Pass (Kenalan), Top Selfie (Pogalan), Grenden (Pogalan), Gua Slandak (Muneng Warangan)
	Wonolelo	Buper Sobleman (Banyuroto)

(Source: Master plan of natural tourism of mount merbabu national park, boyolali, 2017 [12])

The community has developed the diversity of tourist attractions as a form of community participation and interaction in developing nature tourism on the slope of Merbabu (Table 4). The community formed in the tourism awareness group is the community of Pasah Hamlet, Senden Village, Selo District, and Boyolali Regency. This tourist attraction is an alternative form of tourism, is an integrated agro-tourism attraction, and the people of Senden Village managed it. The interest and supporting infrastructure are built and developed in the traditional zone of Mount Merapi National Park. Another attraction developed as alternative tourism in the common area is in Grenden Village, at resort II by creating a form of cooperation in the development of natural tourism by assisting tourism awareness groups, monitoring cooperation, increasing tourism human resource capacity, providing assistance in the development of tourism facilities.

Table 4. Development of alternative tourism on the Merbabu Slope

Product Location Development	Product Theme, Product Image, and Product Diversity
Pasah Hamlet, Senden Village, Selo District, Boyolali Regency	Nature-based tourism and alternative tourism, aspects of environmental care, both abiotic, biotic, and socio-cultural of the local community
Grenden Village, Merbabu Pass (Acquaintance), Top Selfie (Pogalan), Grenden (pogalan), Slandak Cave (Muneng Warangan), Pakis District, Magelang Regency	Nature-based tourism and alternative tourism concern the abiotic, biotic, and socio-cultural aspects of the environment

Alternative tourism is a form of deliberately on a small scale that considers aspects of the local community's environmental care, both abiotic, biotic, and socio-cultural. Alternative tourism also arises due to the saturation of mass tourism which causes a lot of damage to the social environment and ignores the sustainability of the tourism object itself. The environment has two components, namely biotic and abiotic. Biotic components are living features that exist in nature and include all living things, such as animals, plants, microorganisms, and humans. At the same time, the abiotic components are all non-living elements, such as soil, water, and air. Alternative tourism is a new trend developed by considering the quality of the experience gained by tourists and the environment, which pays attention to the socio-cultural quality and the quality of life of the local communities (Table 5).

Table 5. Product diversity and its development on the slope of Merbabu.

Product Diversity	Description of Product Diversity
Product Diversity Image	A tourist attraction includes the image imagined by tourists.
Product Diversity	Product diversity has a significant effect on the number of visits. The development of tourism products optimizes through optimal packaging of its constituent components.

Tourism products (Table 6) suitable to be developed in conservation areas, especially in the utilization zone in the Mount Merbabu National Park area, are natural climbing tourism as images and natural landscapes [14]. Other supporting tourism products: waterfalls, campgrounds, downhill bike paths, and caves as religious tourism destinations and the lives of mountainous or highland people as eco-villages.

Table 6. Product diversity description and description of current condition to product diversity in the slope of Merbabu.

Product Diversity	Score	Product Diversity Description	Description of Current Condition
The image of the diversity of tourism products	3	Product diversity has a significant effect on the number of visits. The development of tourism products optimizes through optimal packaging of its constituent components.	The stagnation of product diversity is very

Product Diversity	Score	Product Diversity Description	Description of Current Condition
	2	Product diversity is very influential and significant to the number of tourist visits.	influential and significant.
	1	No product diversity is very influential and significant in the number of visits.	
Supporting image of tourism product diversity	3	The image of a tourist attraction includes the idea imagined by tourists.	The image imagined by tourists does not exist.
	2	The image of a tourist attraction includes the idea imagined by tourists.	
	1	There is no image of tourist attraction, including the image imagined by tourists.	
Image with the surrounding area	3	The image of the surrounding area relates to the regional branding image and the Merbabu slope area enclave.	Branding in the surrounding area needs an improvement in the Merbabu slope area.
	2	The image of the surrounding area relates to the regional branding image only for the site.	
	1	The image of the surrounding area relates to the regional branding image and the Merbabu slope area enclave.	

Community Interaction on the Slope of Merbabu

Community interaction in developing alternative tourism on the slope of Merbabu produced the Gedong Pass (G-Pass) selfie ride, located in Gedong Hamlet, Tajuk Village, Getasan District, Semarang Regency. The development of this ride is to support the Village Eco-tourism program initiated by community service activities from universities. The rides are in traditional zones as non-permanent tower buildings. This ride has the potential as one of the developments of tourist attractions in Mount Merbabu National Park. Figure 1: The Number of Visitors and Non-Tax State Income represents a critical visualization that links the influx of visitors to the Mount Merbabu National Park area with the resulting non-tax state income generated through tourism activities. This figure illustrates how the growth in the number of visitors correlates directly with economic contributions, such as tourism-related revenue, which is an important factor for sustaining the development of the area's tourism infrastructure. The figure is essential for understanding the economic impact of tourism, specifically alternative tourism, in the region. As highlighted in the preceding sections, alternative tourism focuses on sustainability and the preservation of local culture and the environment. The positive relationship between visitor numbers and income, as shown in this figure, underscores the success of promoting tourism that is not only environmentally friendly but also beneficial to the local communities. This can lead to increased investment in both conservation and community-driven tourism initiatives.

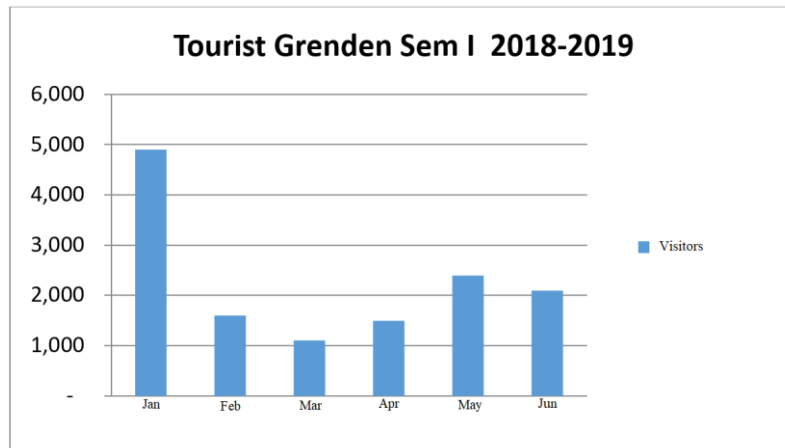


Figure 1. The number of visitors and non-tax state income.
(Source: Mount Merbabu National Park, 2019)

Natural and cultural conservation tourism is in Grenden Hamlet, Pogalan Village, Pakis District, and Magelang Regency. This tourist location offers natural beauty in a pine forest and seepage rocks, along with attractions such as a self-view ride at 1600 meters above sea level, dwarf houses, outbound, and camping ground. A well-organized community group, the Grenden tourism activist group, carries out tourism management (Figure 2).



Figure 2. The interactive form of grenden's nature and cultural conservation tourism

From the observations, the Grenden nature and cultural conservation tourism activities carried out by the Grenden Tourism Activist Group are located in the traditional and jungle zones. Grenden's natural tourism activities in the conventional location have low ecological sensitivity because they are directly adjacent to the land and residential areas but have high social sensitivity related to their use as community-managed tourism objects. Some of the activities carried out by the Grenden Tourism Activist Group in the jungle zone have moderate ecological sensitivity. They no longer follow management conditions that refer to the existing zoning.

The Nature Tourism, Wildlife Conservation, and Observation Area are in Grogol Hamlet, Munengwarangan Village, Pakis District, and Magelang Regency. This natural tourist location offers beautiful panoramic views of the pine forest, Slandak Cave, Slandak Waterfall, Watu Bolong, and tourist attractions of picking roses and various craft products made from roses such as syrup and jam. Natural tourism activities in this area are in the traditional zone. Institutionally, the Gada Basula youth group managed nature tourism activities, which consist of the Grogol hamlet community.



Figure 3. The location of the slandak tourist cave, the location for the merbabu pass selfie, and the kenalan village

Wahana Swaphoto Merbabu Pass is located in Kedakan Hamlet, Kenalan Village, Pakis District, Magelang Regency (Figure 3). This tourist location is adjacent to the Wekas hiking trail. Based on the zoning of Mount Merbabu National Park in 2014, this tourist attraction is in the traditional zone. The tourist attraction of the Merbabu Pass slope is the view around the location. The potential for biodiversity in Merbabu Pass includes various birds, partridges, and pines.

The overall landscape in the Conservation Area has the potential for diversity that supports alternative tourism [4], in the utilization zone of six tourism objects in the traditional site spread over three sides of Mount Merbabu National Park, namely the Merbabu Pass and Gedong Pass tourism objects on the north side. Tourism objects in the utilization zone can be in two forms: special interest tourism (climbing) and recreational tourism (non-climbing). The following are recreational tourism objects scattered on all three sides of Mount Merbabu National Park. On the north side, non-climbing tourist objects are in the utilization zone (public space and business space) and the traditional site, Merbabu Pass, Thekelan downhill bike path, Umbul Songo Gedong Pass, and Kalipasang. In addition, there are enclaves: Tajuk Village in Gedong Hamlet (live in, participate in the activities of Dusun people, Jeep community), Batur Village to be precise in Selo Dhuwur Hamlet (surrounded by TNGMb), natural beauty of the landscape. The mass attraction, namely Wahana Swaphoto Gedong Pass (G-Pass), is located in Gedong Hamlet, Tajuk Village, Getasan District, and Semarang Regency. The development of this vehicle is to support the Village Eco-Tourism Program. This ride has the potential as one of the developments of tourist attractions in Mount Merbabu National Park [15].

4. Conclusion

In conclusion, the development of natural tourism landscapes on the slope of Merbabu has significantly contributed to the preservation of both the environment and local culture through community-driven conservation tourism. The Mount Merbabu National Park (TNGMb) plays a pivotal role in fostering community interaction, providing assistance for capacity building, and supporting tourism development initiatives. Although the natural tourism activities in the traditional zone exhibit low ecological sensitivity due to their proximity to residential areas, they exhibit high social sensitivity as they are managed by local communities. The park's utilization of tourism aligns with its primary function of preserving resources and ecosystems. Moving forward, the management of tourism in the Merbabu National Park aims to enhance the effectiveness of ecotourism, ensuring sustainable preservation, fostering public acceptance, and contributing to the economic welfare of the region, while integrating with broader national tourism initiatives like the Super Priority Destination (DSPPN) Borobudur.

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6. Conflict of Interest

The authors declare that there are no conflicts of interest regarding the publication of this article. The research was conducted independently, and the findings presented in this paper are not influenced by any personal, financial, or professional interests that could be perceived as a conflict of interest.

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