The Natural Tourism Landscape of The Mount Sumbing Slope

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ABSTRACT

This research examines the natural tourism landscape of the Mount Sumbing slope. The components of the natural tourism landscape, which concludes attractions and compatibility, have become one of the most critical factors to determine the potential level's assessment indicator of the region's environmental compatibility and attraction so that the pattern of these characters and attractions can be identified. The result obtained by this research shows that the level of natural tourism landscape of Mount Sumbing slope has a significant index quantity, as seen by the higher the natural environment's quality, the higher attraction and compatibility can be achieved. This research concludes that the natural tourism landscape constitutes the natural environment's compatibility physically in the form of potential water resources, potential natural resources, and a positive natural environment index. Both are representations of a condition that refers to the natural tourism landscape of the Mount Sumbing slope's potential.

Keywords: Mountain Slope, Natural Tourism, Sumbing Mountain

1 Introduction

The natural tourism sector has enormous potential to help increase the community's welfare through economic or non-economic activity. The economic potential is related to its strategic role in increasing Locally Generated Revenue (*Pendapatan Asli Daerah,* PAD) and creating job fields and business opportunities for the society. On the other hand, the non-economic potential is related to the direct benefit from the tourism activity in the form of intangible values, such as social, psychological, and cultural benefits. In addition, the tourism sector has a vital role in the regional economy. Like other regions, Magelang Regency is attempting to develop itself by optimizing tourism resource utilization to push its economic development, increase job opportunities, and strengthen regional income with the society, primarily through nature tourism activities in Mount Sumbing slope.

In this research, environmental compatibility is a composite index of two environmental components that influence each other, namely the natural and social environment [1]. According to Muhammad, the natural tourism landscape has three most important factors to be analyzed: ecological landscape, sociocultural values within humans, and environmental aesthetics [2]. Landscape aesthetics is a stand-alone factor, yet it is a form of two other factors' polarization. It is also mentioned that ecological landscape and aesthetics have attraction and compatibility scopes from the site. On the other hand, natural tourism is a part of compatibility and attraction that forms an optimal area through the program's needs analysis integration process.

As stated above, the program's requirement in this research is the 2010th post-eruption treatment, which is ongoing. Hence, each element and facility will be placed with the integrated functions in the landscape according to its site characteristics and natural (ecological) environment--which are state of site compatibility and attraction of the natural tourism environment [2].

According to Fandeli and Muhamad, the region's attraction and compatibility represent the environmental condition by locus, which refers to the potency of the region's attraction and compatibility distribution [3]. The environmental state by locus is a distinguishing factor in physical and non-physical environments.

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Thus, the locus compatibility and attraction are a physical landscape in the form of an environment, humans along with their cultural-economical objects, and natural tourist attraction in the form of the natural tourism landscape in the Mount Sumbing Slope.

Natural tourism landscapes that have yet to be managed are considered a potential resource that cannot be counted as a natural landscape yet [3]. On the contrary, the treatment attempt cannot be made in a region with no certain potential attractions. Therefore, if there is more than one level of attraction or compatibility in a region, the natural tourism landscape will be more developed—which these cannot be developed entirely due to the conservational interest and natural conservation reason [3].

Tourism's physical environment is a quality, appearance, features, or style characteristic. Those characteristics must be considered as a tourist attraction and the main tourist attraction. The tourist area attraction is one of the human necessities as a human has the instinct to a sense of reality, interest, curiosity, discovery, and inquiry [4].

Natural tourism landscape in the form of environmental compatibility is a natural environment analysis (physically) that has different composite indexes. This analysis is conducted as a social environment component (population). It's an integrated index from its sociocultural quality (Mount Sumbing slope's local community) is indicated by their educational, health, and socioeconomic levels. Using the social perspective, the higher the natural tourism landscape is, the higher the natural tourism landscape environment quality will be. The main goal of this research is to determine the indicator of the variable of Tthe natural tourism landscape assessment potential seen by Mount Sumbing slope's compatibility and attraction level. This is also conducted to analyze the compatibility level potential determining factors in studying the Mount Sumbing slope tourism area's characteristics and attraction distribution pattern.

2 Research Methodology

This research is written descriptive-analytically using primary and secondary data analysis methods. The environment and tourism area landscape's level of compatibility has two indicators as a variable, namely the natural environment landscape (physical) and the human socioeconomic environment (non-physical). The indicators of the site's compatibility treatment and area attraction variable have different parameters requiring standardization--using a z-score applied to each indicator. This standardization has relative values, which are comparable and can be operationalized to addition and/or subtraction. As explained mathematically, the z-score can be calculated with the following formula: z-score (with x_i as the variable value) and μ as the average value divided by s as the standard deviation.

The z-score consists of positive (above average) and negative (below average) z-score. The composite index is calculated by summing up all the indicators' z-score values. The environmental compatibility (non-natural) variables as the socioeconomic human environmental assessment indicators (non-physical) consist of the natural environment landscape variables compatibility, such as:

The natural environment is highly influenced by land resources' quality, with indicators that include: (1) the land's physiography and sloping degree; (2) the soil's texture and depth; (3) the amount of rainfall, landscapes, and dry month; also (4) land use index.

a. The natural environment is influenced by water resource availability, which is indicated by the potential of surface water, groundwater, and water springs.

3 Results and Discussion

According to Fandeli and Muhamad, tourism area potential is the environmental compatibility and attraction, which are essential elements to see the potential [4]. The synthesis analysis of both components can be analyzed using different frameworks and ways, as each has a different index value and natural environment index. The map shown in Figure 1 below illustrates the village's natural environment

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compatibility based on the layout and accessibility system that has the natural compatibility tourism attraction that is currently developing.

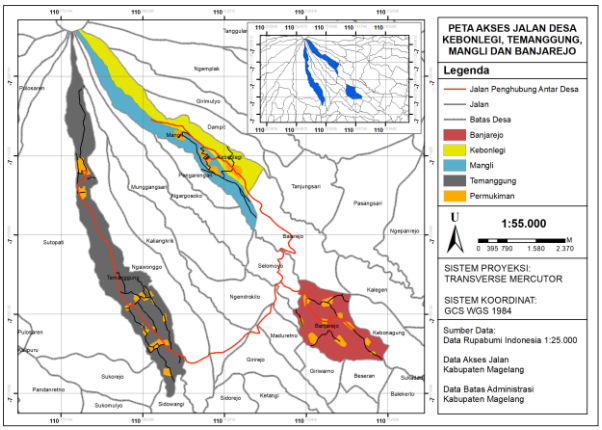

Figure 1: *The landscape compatibility based on the accessibility system in three villages in the Sumbing slope, Magelang Regency.*

3.1 Natural Environment Component (Physical)

The physical environment component is one of the essential components of the tourism establishment, which is a natural environment component that includes land and water resources potential. The essential components include both components as the tourism carrying capacity potential [4].

Usually, Mount Sumbing slope's land resources potential follows the area's physiographic pattern (physically). Temanggung village is one area with a high water resource potential with the primary function of water infiltration as it is directly bordered by Mount Sumbing slope. The surface potential (water storage as applied to meteorological systems resembling rivers and basins), groundwater resources, and water springs indicate the water resources potential.

The Mount Sumbing slope's natural environment component, as explained in Table 1, shows that four villages in Kaliangkrik District have a negative index. The most significant index can be found in eight villages of Kaliangkrik District, namely its natural resources potential caused by the settlement's dominance. The area of Banjarejo, Kebonlegi, Mangli, and Temanggung Village has the highest water resources potential index, as it is the center of the Sumbing slope area development and tourism due to the high rainfall and many springs.

Table 1: *Natural Environment Component of Sumbing Mountain slope*.

No	District	Area	Water Resources Potential	Natural Resources Potential	Natural Environment Index
			(z score)	(z score)	(z score)
1	Kaliangkrik	Banjarejo	3,3364	-1,5744	-0,8497
2	Kaliangkrik	Kebonlegi	-5,1402	-0,0191	-1,2752
3	Kaliangkrik	Mangli	-1,5822	-0,4594	-0,34853
4	Kaliangkrik	Temanggung	4,0931	-1,2828	-3,1302

According to Muhamad Muhamad and Fandeli and Muhamad Muhamad [1, 4], The natural environment condition index includes land and water resources potential, the essential component for natural tourism

areas [1] [4]. Based on the z-score result analysis, both indexes gave different results towards the natural environment index. Generally, the analysis shows that all areas of Kaliangkrik District, also located on the Mount Sumbing slope, have a positive water resources potential index, in which all four villages are directly adjacent to the slope. The highest water resources index is in Banjarejo (3,3364) and Temanggung (4,0931) village, while the lowest is in Kebonlegi and Mangli village (1,9877). According to Fandeli and Muhamad, an area with a high water resource potential does not necessarily have a high land resource potential or a good carrying capacity [1] [4]. This area has lowland potential, as it happened in the upper slope area, which is directly bordered by the Mount Sumbing slope—yet has high water resources and natural tourism attraction potential. The land characteristic on the upper slope is a naturally covered forest land, which includes the conservation area [2, 4]. Therefore, we must recognize three potential analyses in the natural environment index analysis: the potential of water resources, natural resources, and land resources (Table 1).

3.2 Area and Object Attraction in the North Yogyakarta

The tourist object area attraction illustrates the condition by locus, which only refers to the object distribution potential and the tourist attraction [2]. In this research, the area attraction phenomenon is considered not comprehensive enough to be understood as it is done by analyzing the factors internally in the limited scope area. The area attraction is shown by various conditions on tourist objects through its quality value, which from parameters will be derived, scaled, and interpreted [2, 4]. This guidance and criteria are then scaled by giving the best to worst observation rate so that the studied and analyzed group or cluster's extreme illustration can be obtained. In the next stage, the scale will then be converted from the highest (100) to the lowest (0) value. Afterward, the data will be calculated to see its average and standard deviation and then to utilized in the tourism object attraction classification--which can be seen in Table 2 below.

Table 2: *Analysis of Natural Tourism Attractiveness on Sumbing Slopes in Mangli Village*

No	Tourism Object	Score	Rank	Attraction
1	Desa Wisata Mangli	666.00	1	HIGH
2	Mangli Sky View	633.33	2	MEDIUM
3	Linggar Jati	666.67	1	HIGH
4	Silancur Glamping	666.67	1	HIGH
5	Teras Mangli Coffee and View	633.33	2	MEDIUM
6	Mangli Sumbing Basecamp	666.67	1	HIGH
7	Wisata Alam Bukit Trianggulasi	533.33	3	LOW
8	Punthuk Mangli Kaliangkrik	766.67	1	HIGH
9	Silancur High Land	733.33	1	HIGH
10	Nongkrong GG Geming	600.00	3	LOW

Based on the tourist attractions' result analysis above, the most high attraction of Mount Sumbing slope is in Mangli Village. It shows that this village has the average variation with the high average and standard deviation value in the Mangli Tourist Village, Silancur High Land, and Mangli Sumbing Basecamp as shown in the Figure 2 below.

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A **B** **C**

Figure 2: *The Kaliangkrik Area's Landscape Mangli Tourist Village (A), Silancur High Land (B), and Mangli Sumbing Basecamp (C) which sells natural and cultural landscapes as a competitive tourist attraction*

The Table 3 below shows the analysis of natural tourism attractiveness on Mount Sumbing Slopes in Temanggung Village.

Table 3: *Analysis of Natural Tourism Attractiveness on Sumbing Slopes in Temanggung Village*

No	Tourism Object	Score	Rank	Attraction
1	Puntuk Neval	633.00	2	MEDIUM
2	Neval van Java (Dusun Butuh)	666.33	1	HIGH
3	Curug Kembar Silawe	633.67	2	MEDIUM
4	Base camp Sumbing	666.67	2	HIGH
5	Lereng Gunung Sumbing	633.33	2	MEDIUM

As stated in the Table 3, the Mount Sumbing slope natural tourist attractions' result analysis, particularly in Temanggung Village, shows that this village has the average variation with the high average and standard deviation value in the Neval van Java (Dusun Butuh).

Table 4: *Analysis of Natural Tourism Attractiveness on Sumbing Slopes in Kebon Legi Village*

No	Tourism Object	Score	Rank	Attraction
1	Wana Mukti Si Guede	633.00	2	MEDIUM
2	Kebon Legi Tourist Village	666.33	1	HIGH
3	Curug Delimas Girimulyo	633.67	2	MEDIUM

As shown in the Table 4, the Mount Sumbing slope natural tourist attractions' result analysis, particularly in Kebon Legi Village, shows that this village has the average variation with the high average and standard deviation value in the Wana Mukti Si Guede.

This particular tourism object was started by the motorbike community consisting of youth that often carried out photographic activities in the street, which initiated the local community to establish a viewing post as a tourist destination. This location is then named Wana, as the area was originally a forest (wana). The name Mukti is also given as hoping for the community's welfare.

4 Conclusions

The Mount Sumbing slope's analysis result is based on the quality and variety of as follows: (1) tourism's originality and attractions; (2) utilization and range of the tourist, utility, and environment physical condition; also (3) the land's availability. This analysis is also based on the tourist's attraction and object parameters assessment, which has a high level of attraction in Mount Sumbing slope located in the three villages as stated above. The conclusions may also be broken down into points as follows:

1. The Mount Sumbing slope's landscape potential assessment indicators or variables include environmental compatibility level and natural tourist attraction;
2. The natural tourism landscape is environmental compatibility in the form of natural environment component (physical) and human sociocultural environment (non-physical), which are the condition's illustrations that refer to the site's tourist attraction potential;
3. The environmental compatibility level potential's determining factors and the Mount Sumbing slope natural tourism area attraction's distribution pattern characteristics have a high attraction level.

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