

## Designing Rawa Pening as a new nature-based tourism area

Ashri Prawesthi D<sup>1\*</sup>, Widia Nur Intan Paramita<sup>2</sup>, I Putu Krisna Arta Widana<sup>3</sup>, Ni Luh Ayu Kartika Yuniastari Sarja<sup>4</sup>

<sup>1,2</sup> Department of Architecture, Universitas Pancasila, Indonesia

<sup>3,4</sup> Department of Tourism, Politeknik Negeri Bali, Indonesia

\*Corresponding Author: [ashripd@gmail.com](mailto:ashripd@gmail.com)

**Abstract:** The purpose of this research is to determine the potential of Rawa Pening area which can be developed as a new nature-based tourism area in Central Java, Indonesia. The research method is qualitative research. This method of data collection during the Covid 19 pandemic used more secondary data than primary data. The interview method with resource persons through field survey method is carried out to complete the analysis of this research. The findings resulting from this research are on several potentials that can be developed, both physical and non-physical potentials. The results of this research are ideas and suggestions through the plan of design ideas or initial concepts in developing new nature-based tourist areas.

**Keywords:** new nature, tourism area, design.

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### Introduction

Rawa Pening Ambarawa Tourism Area in Semarang Regency, Central Java Province, is a swamp area of 2,670 hectares. This area is located among 3 mountains, namely Mount Ungaran, Mount Merbabu and Mount Telemoyo. If you pay attention, its location is in the lowest basin between the slopes of the mountains. This tourist area has become one of the icons of Semarang Regency. The location of the area is easily accessible by land and rail-based transportation modes, ranging from public transportation (buses, rural transportation, urban transportation, travel cars), private vehicles and tourist trains.

The plan to develop Rawa Pening Tourism Area has been included in the policy of the Semarang Regency Regional Regulation Number 8 of 2019 concerning the Master Plan of Semarang Regency Tourism Development 2020-2025. The development of Rawa Pening Tourism Area is included in the Semarang Regency Tourism Strategic Area which consists of a mainstay Tourist Destination Area (DTW), including Bukit Cinta Brawijaya Rawa Pening (Kebondowo Village, Banyubiru District).

The idea/concept is applied in the form of education-based natural tourism areas such as outbound, agro-tourism activities, creativity activities that rely on the potential of residents. We do not forget to also apply the concept of designing environmentally friendly tourist areas such as the application of solar panels, signage with smart LED features, wind power plants, and the application of good waste management. With the application of this concept, it is hoped that Rawa Pening Tourism Area can become an area that can benefit many people.

## Methodology

This research is constructed qualitative. Data collection methods are literature study, secondary data collection (from relevant agencies and internet media) and primary data (from interviews, field observations with photo shoots and video capture). Data in the form of area potentials obtained from the survey results are described based on urban design elements contained in the Guidelines for Building and Environmental Planning (RTBL) of the Ministerial Regulation (Permen) of Public Works and Public Housing Number 6 of 2007b (Ministry of Public Works, 2007). After being analyzed, conclusions will be made in the form of a narrative and the design concept.

## Results and discussions

The results of the research regarding the identification of potential in the Rawa Pening area can be described according to the elements of area development design. The land use structure is everything related to spatial planning in the area to be arranged. Currently, the Semarang Regency Spatial Plan has been prepared and enacted according to the Semarang Regency Regional Regulation Number 6 of 2011 concerning the 2011-2031 Semarang Regency's Regional Spatial Plan (RTRW). Based on the Ministry of Public Works (2007a) concerning Guidelines for Technical Criteria for Cultivation Areas, it is stated that a Tourism Area is an area designated for tourism activities or everything related to tourism, including the exploitation of tourism objects and attractions and related businesses in that field.

The RTRW of Semarang Regency is still managing zones in general, still using a map scale of 1:250,000. Detailed Spatial Planning (RDTR) and Building and Environmental Planning (RTBL) with a more detailed scale, are not yet available. Based on this, a more detailed spatial or zoning plan must be made immediately and not forgetting the open space area, both green and non-green as a potential for the development of nature-based tourist destinations.



(Source: Mytrip123.com, 2019)

**Figure 1.** Lake Rawa Pening in 2019 (before the Covid-19 pandemic)

Almost the same as the land designation structure above, because the Detailed Spatial Plan (RDTR) and the Building and Environmental Planning (RTBL) with a more detailed scale are not yet available, so input for planners should first make calculations about the intensity of land use such as the use of Building Base Coefficients, Building Floor Coefficients, Lake/Swamp Border Lines, Road Border Lines and Building Heights. Several definitions of land use are written in the Law on Buildings, such as: The basic building coefficient is the ratio between the area of the ground floor of the building and the area of parcels/ lots/ allotment blocks (Republic Indonesia Government, 2002). Other definitions are also written in the regulation.

If referring to the Minister of Public Works and Public Housing Number 6 of 2007, building layout is a product of the implementation of the building and its environment as a form of space utilization, covering various aspects including the formation of the image/physical character of the environment, the size, and configuration of the elements: block , plots of land, buildings, as well as the height and elevation of the building floors, which can create and define various qualities of urban space that are accommodating to the diversity of existing activities, especially those that take place in public spaces (Ministry of Public Works, 2007).

Based on the survey results, this area is still natural and there is no arrangement regarding building arrangements such as the distribution of building blocks in the area, let alone plots. Currently, there are only vast expanses of rice fields, plantations and swamps. In some parts of the area, there is already a road network made by the Department of Highways of Semarang Regency.



(Source: Google Maps, 2019)

**Figure 2.** Streets and buildings 2019 (before the Covid-19 pandemic)

The formation of the image/character of the region is currently still lacking. The existence of tourist areas in Central Java Province which should carry the image/character of the Central Java Region is not yet clear. For this reason, the proposed area design must really be able to image as an area located in Central Java and also maintain the image of the area on its natural basis.

According to Hakim (2011), the environmental elements concerned with outdoor landscaping include landscaping materials, scale, circulation and parking, green planning, lighting, floor pavement, comfort, drainage, landscape engineering, and retaining walls. Circulation is needed in tourist areas, especially those based on nature. Circulation arrangements, connecting routes such as bridges and parking spaces will be adjusted to the zones formed and will adjust to the natural conditions that lie in this area.

The use of hard and soft elements as materials for forming the outer space of this area will adapt to its natural conditions so as not to damage the environment with

artificial things. In addition to circulation and connecting lines, the provision of parking spaces in tourist areas is also required. Currently, there is no location for providing parking. Although currently increasing the green architecture program which is slowly starting to leave private vehicles, the need for parking spaces in tourist areas is still needed.

According to Hobbs (1995), in regulating parking, it is not only technical interests that are of concern, but also those concerning the issue of beauty. In planning a parking lot, information about parking characteristics is needed. The parking characteristics are parking accumulation, parking index, parking duration, parking turn over (parking turnover rate), and parking volume, as contained in the Directorate General of Land Transportation (1996).

In short, public open space has three important characters: there is a meaning (meaningful), can accommodate the needs of each user in carrying out activities (responsive), and can accept various community activities without discrimination (democratic) (Lesil, 2016).



(Source: Mendra, 2021)

**Figure 3.** Open space photos 2019 (before the Covid-19 Pandemic)

The tourist area of Rawa Pening Ambarawa is mostly green and blue open space. Green open space in the form of protected forest areas, expanses of rice fields and plantations, as well as some green land that has not been utilized. In addition, there is a swamp, which is currently also filled with cages and water hyacinth. This state will be maintained in part, for nature-based tourism. As for the unused land, it is planned for outdoor activities.

Structuring Environmental Quality refers to the effort to engineer the elements of the area in such a way as to create an area or sub-area with an environmental system that is informative, has a distinctive character, and has a certain orientation (Ministry of Public Works, 2007). As an area that still needs structuring, the current condition is

not yet an informative environmental quality system. Imaging or creating an area that makes it easier for area users to be oriented and circulate will become a concept in structuring environmental quality management. System and environmental quality that makes it easier for users to recognize the distinctive character of their environment.

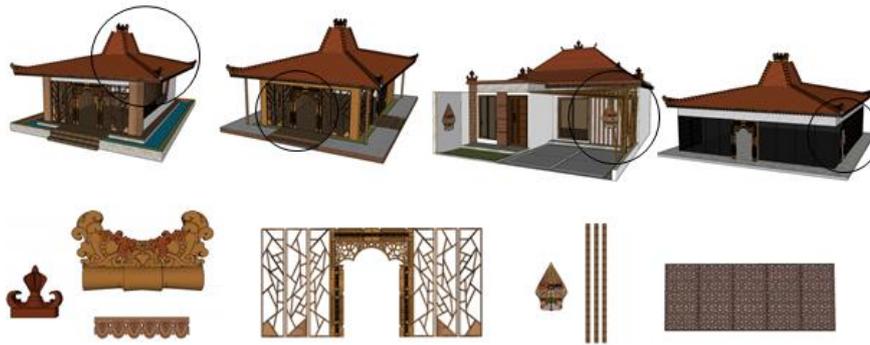
The role of the Bina Marga Office, PUPR Service, Transportation Service, Semarang Regency Tourism Office in this area is very large. Some basic facilities are already available, it's just that there is a need for an integrated infrastructure, facilities and utilities (PSU) management system in this tourist area. It is also necessary to increase the quality and quantity of the existing PSU, to anticipate visitors who come when this area is well laid out. Within the area, there are no buildings that must be preserved or conserved. However, there are protected forest areas that must be maintained and have the potential for the development of natural tourism areas. The concept of preserving protected forest areas will be applied in designing activities or so-called attractions in tourist areas.

According to Spillane in Ghaisani, Ramdlani, and Ernawati (2016), elements of the tourism industry are divided into five, namely attraction, facilities and infrastructure, transportation, and hospitality. The attraction itself consists of several conditions, namely they must have something to see or a tourist attraction that is different from that of other regions, something to do or an object with many attractions that can be seen and witnessed, something to buy or facilities for shopping for souvenirs. by, something to stay or a temporary place to stay for visitors, and something to arrive or can be called accessibility to surround the available attractions.

Based on the theory, the conclusions of the research on the potential of Rawa Pening Tourism Area, Central Java as a New Nature-Based Tourism Area are as follows. The concept related to the design title of Rawapening Tourism Area Development, Ambarawa, Semarang Regency, Central Java Province is an Education-Based Nature Tourism Area. This tourist area was developed with the aim of increasing the potential of nature as a tourism base and directed at nature/outdoor educational activities, in accordance with the available potential.

The land use of Rawa Pening Tourism Area maximizes the potential of the swamp as freshwater fish cultivation and agricultural potential as agricultural cultivation and plantations as plantation cultivation. Land use is also in accordance with the Regional Regulation of Semarang Regency Number 6 of 2011 concerning Spatial Planning of Semarang Regency in 2011-2031 concerning Green Open Spaces, and Lake/Swamp Protection Areas. It is determined that the planned built area is 40% of the total area, and the open area is 60% of the total area.





(Source: Intan, 2021).

**Figure 6** Concept of architectural style

## Conclusions

The design of a tourist area with an educational theme supported by the surrounding potential which is dominated by natural resources is the right effort in developing a tourist area that is more attractive, active, and has an aesthetic value that has developed than before. This is in line with the Ministry of Tourism and Creative Economy's vision to make Indonesia a world-class tourism destination (Wartoyo & Haida, 2020). For this reason, the Ministry of Tourism and Creative Economy has a mission to develop world-class tourism destinations and conduct tourism-oriented marketing. In addition, the Ministry of Tourism and Creative Economy also focuses on developing the environment and capacity of the highly competitive tourism industry in Indonesia (Ministry of Tourism and Creative Economy, 2020). In the process of designing Rawa Pening Ambarawa Tourism Area in Semarang Regency, Central Java Province, the creative ideas/concepts that will be applied are maintaining green open spaces, applying the concept of educational tourism and creating an environmental quality system based on the image of the traditional area of Central Java.

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