






# The Implementation of Community-Based Agrotourism Concept as Sustainable Design in Rebakong-Kayangan Village, North Lombok Regency

Rini Srikus Saptaningtyas<sup>1</sup>  , Giska Ayu Pradana Putri Kamase<sup>1</sup>,  
Noor Oktova Fajriyah<sup>1</sup>, and Lee Yoke Lai<sup>2</sup> 

<sup>1</sup> University of Mataram, Jl. Majapahit No. 62, Mataram, NTB, Indonesia  
rinisaptaningtyas@unram.ac.id

<sup>2</sup> University of Technology Malaysia, Jl. Sultan Yahya Petra, 54100 Kuala Lumpur, Malaysia

**Abstract.** The tourism sector is one of the main pillars of a productive economy that has enormous potential to give a positive impact extensively. The Government of North Lombok Regency, West Nusa Tenggara Province utilized this sector to improve not only economic aspects but also the impact on social, cultural, and environmental aspects. North Lombok Regency has a wealth of tradition, culture, culinary, and characteristically of villages that potential to be developed as a tourism destination. One of the characteristically villages namely Rebakong, Kayangan Village in Kayangan District, grapes is one of the main commodities that could be developed as a new agrotourism destination. The development of grape commodities in Rebakong, Kayangan Village is dominated by household-scale production activities which tend to have low and slow productivity because they are not supported by adequate facilities and infrastructure. Therefore, it is necessary to develop tourism activities in Rebakong, Kayangan Village to encourage and improve the village economy by increasing the added value of environmental, social, cultural, and economic assets of the village. To realize this, an integrated and comprehensive regional design is needed to increase the value and attractiveness of the area as an alternative tourism destination by carrying out the concept of community-based tourism. Hence, this project aims to identify the potential of Rebakong-Kayangan Village and to recommend the master plan and integrated design of the district with a community-based tourism concept by descriptive and qualitative analysis. Therefore, it is expected to be able to empower village communities, increase local tourism, and improve the people's economy. It will drive a sustainable regional economy. As a result, a strong and competitive community will be able to develop the village to be advanced and independent development-based. The development of the Rebakong, Kayangan Village is expected to be a pilot project for the arrangement of the Grape Village area in North Lombok Regency.

**Keywords:** Tourism · Agrotourism · Sustainable Design Implementation · Community-Based Tourism

## 1 Introduction

North Lombok Regency is one of 10 (ten) Regencies and Cities in West Nusa Tenggara Province which is located in the northern part of Lombok Island. The land area is about 809.53 km<sup>2</sup> and it is administratively divided into 5 (five) Districts, 33 Villages, and 322 Hamlets. North Lombok Regency has a beautiful natural fascinating. This condition is an important asset in supporting business growth in the tourism sector. The most famous natural tourism in North Lombok Regency is the nice beach on the Three Gilis, namely Gili Trawangan, Gili Air, and Gili Meno, which are located in Pemenang District. In addition, Mount Rinjani National Park and its diverse cultural wealth are also alternative tourist destinations. North Lombok Regency has enormous tourism potential because each sub-district has its characteristic both natural tourism and cultural tourism.

The substitute in tourist interest during the post Covid-19 pandemic has shifted from mass tourism destinations to alternative tourism destinations. This condition requires various regions to develop alternative tourism destinations to meet these needs, no exceptions in North Lombok Regency. North Lombok Regency Government is developing various alternative tourist destinations outside the Three Gili Area which have been very popular among tourists. One of them that will be developed is Kayangan District, in Rebakong Hamlet, Kayangan Village, as an agrotourism destination.

The activities of Planning the Masterplan of Rebakong-Kayangan Village, North Lombok Regency use a literature review approach which is equipped with qualitative analysis. This study's activities include the synthesis of various related documents, literature and review, and field study to support the content analysis. The qualitative data analysis was carried out through interviews and discussions with villagers, as well as through observations and direct surveys in the field. Interviews and discussions were conducted to obtain a comprehensive description of the needs, desires and expectations of the villagers regarding the results of this study. While, field observations were carried out to identify and record the existing condition of the site and the site context in which to identify the objective of the study.

## 2 Agrotourism Village Concept

### 2.1 Tourism Village Conception and Approach

A tourist village is defined as the potential and characteristics of a tourist attraction and is not limited to a certain village core area, hence it consists the located to adjacent villages. Tourism village emphasize on the experiences and impressions of visitors during their visit. The development of tourism village considering 5 (five) aspects, there are authenticity, local communities, community involvement, attitudes and values, and also conservation and resources support [1].

As a unified ecosystem, village development requires a holistic and integrated understanding of the strengths, weaknesses and potentials that are owned and can be developed for the village [2]. The development of tourism village conception and approaches must consider a holistic multi-dimensional linkage by emphasizing the tourist experience to see, feel and explore.

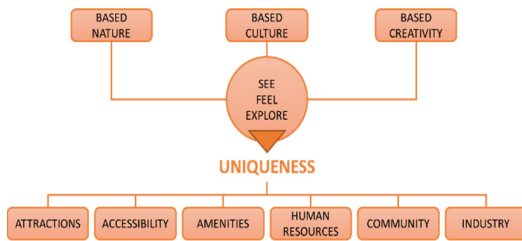


Fig. 1. Tourism Village Elements as an Ecosystem



Fig. 2. Sustainable Tourism Development Model [5]

The strategy of tourism village development can be perused through holistic development of tourist destination by tourist attractions, public facilities, tourism facilities, accessibility, and communities that are interrelated and complement the realization of advanced tourism including attractions, accessibility and amenities (3A), and also excellent human resources, society and industry [3]. Along with their respective uniqueness, all of these elements essential to complement each other to realize the advanced village tourism. In more detail, these elements are described in Fig. 1.

## 2.2 The Sustainable Tourism Principles

Sustainable tourism development means tourism development that responds to tourist interest by involving the active participation of local communities in order to achieve long-term oriented protection and management efforts. Development efforts necessity to achieve the sustainable three (3) aspects, which include economic, environmental, socio-cultural [4]. Succinctly, the integration of social, economic and environmental aspects in sustainable tourism development is expected to enhance the quality of life, strengthen cultural and community values, and recovery the local community’s economy. The relationship between these three aspects illustrated in Fig. 2.

Subsequently, to realize the sustainable tourism development and approach into the conception of community-based tourism development and local potential [2] to guide the development of tourism village. This tourism conception is focuses on improving the welfare of the community, while tourism activities carried out in the area that owned, operated, managed and coordinated by the community and local community groups.

### 2.3 Agrotourism

Agrotourism is a tourist attraction that aim to increase the tourist knowledge and experience that related to variety of agriculture activities. Agrotourism can also be defined as the development of the natural tourism industry that emphasizing on cultivating natural potentials by relying on cultivation capabilities, whether agriculture, plantation, farm, fisheries or forestry, which are pursued through various conservation efforts as a form of preserving natural resources, local communities, and cultures. Likewise, the management of an agrotourism area comprises the active involvement of natural site, educational values, and community participation and utilization [6].

Agrotourism development can be designed in the closed spaces (e.g.museum), open spaces (e. g. parks or landscapes), or a combination of both spaces [6]. The form of open space agrotourism can be land management with the specific capabilities and land typology, in supporting effective and sustainable agricultural activities. The attraction of the open-air agrotourism to increase tourist to visit could be the flora and fauna that combined with natural scenery, cultivation technology, post-harvest processing methods, and local cultural attractions.

## 3 Rebakong Hamlet as an Agritourism Destination

Rebakong Hamlet was chosen as the location of the pilot project for the arrangement of the Kampung Anggur (Grape Village) area in North Lombok Regency. This location was chosen because grape cultivation in this location has been running for almost two years by utilizing the land and gardens by the community. This condition shows community involvement to support and participate in this project. And also, the climate of Kayangan District is considered very suitable for grape cultivation.

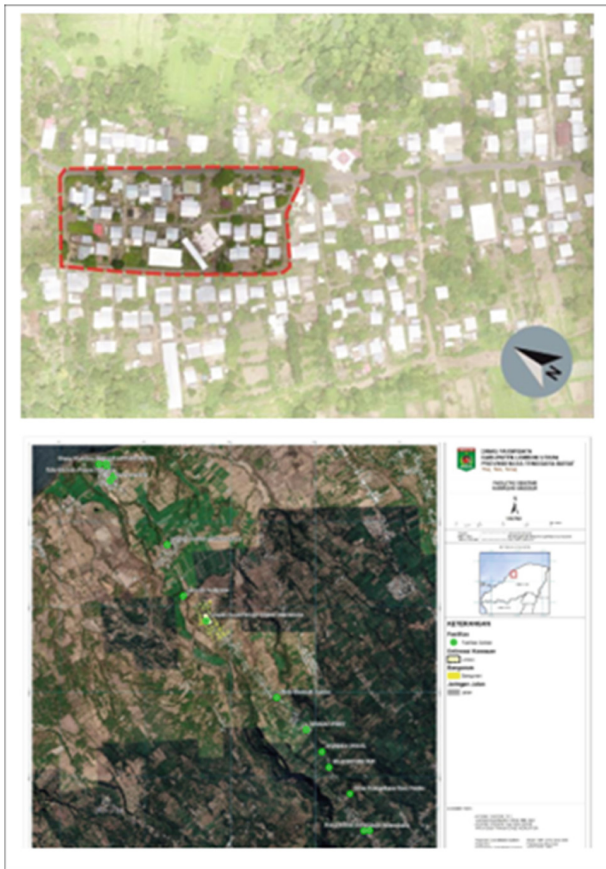
The grape cultivation activities need to pay attention about the condition of land and climate. Kayangan District is a fairly dry area in North Lombok Regency. This shows that throughout the year, this area gets a fairly high sun access. This condition is suitable and also supports the cultivation of grapes which tend to be dry and require high sun intensity. The grape vine can be successfully growth and optimal produce by notice the land and climate condition, and also applying the right cultivation technology. The condition of land and climate in Indonesia to cultivate grapes is sufficient by community-based tourism concept (Fig. 3).

The topography in the study area is relative flat. This condition will make easy the site arrangement and the building design process. The area of the Kayangan Grape Agrotourism that will be the design area shows in Fig. 4. The elongated shape of the site is a challenge in structuring and developing design in general. This site is located in Rebakong Hamlet, Kayangan Village, Kayangan District with the area approximately 9,550 m<sup>2</sup>. This hamlet can be accessed directly from Raya Bayan Street, which connected with sub-districts in North Lombok Regency.

The site is located in a hamlet area and far from the edge of the highway. There for e this area designed by the proper circulation, view, and landscape processing to be developed as an attractive tourist village destination. It is combined with the existing potential where the local community also cultivate grapes can be an attraction in itself.



**Fig. 3.** The Map of Delineation Agrotourism Study Area



**Fig. 4.** Site Location of Rebakong Hamlet

The development of the Rebakong Hamlet, Kayangan Village is chosen to be a pilot project for the arrangement of the Grape Village area in North Lombok Regency.

### 3.1 Site Analysis

Site analysis is necessary to identify the existing condition of the area that described about the details of strength, weakness, opportunities, and potentials. The results of this analysis used as the basic building development design to obtain the appropriate solutions, responses, and design approaches. To achieve this goal, it is necessary to carry out an in-depth and thorough site analysis by considering the following aspects:

- Location and Accessibility
- Topography
- Circulation
- Noise
- Zoning
- Building Mass and Appearance
- View and Orientation
- Landscapes
- Building Structures and Materials
- Utilities

### 3.2 Space Program Analysis

The analysis of activities in the design of the Kayangan Grape Agrotourism area is necessary to consider several things comprehensively as follows:

- Activity analysis, including groups of activity actors, activity characteristics and types of activities in buildings,
- Analysis-space needs, space requirements, and space properties, also
- Analysis of spatial relationships and organization

## 4 Kayangan Grape Agrotourism Design Concept

The design concept of the Kayangan Grape Agrotourism area imposed the idea of “see, feel, and explore” design approach. This approach prioritizes the visitor experience to utilize five senses (touch, sight, taste, sound, and smell) to explore various tourism and educational activities. This approach is also delivered into a site design concept of open space, not rigid, dynamic, and offers a variety of interesting activities. The main building design is expected to offer a visual connection to the hamlet area and the grapes garden area. The pedestrian area must be designed with attractive visual and able to provide a sense of security and comfort for the visitors.

The design concept of the Kayangan Grapes Agrotourism area are (Fig. 5).





Fig. 5. Masterplan of the Kayangan Grapes Village



Fig. 6. Entrance Gate Design Concept of Kayangan Grape Village

#### 4.1 Concept of Accessibility Pattern

Proposed the entrance gate located at the centre of the site, and the concept of 'one gate system'. This concept was chosen to facilitate monitoring of visitors entering and access the main entrance. In addition, a space marker is needed in the form of an attractive gate design to increase the legibility for tourists to find the location and become a regional landmark of the site (Fig. 6).

#### 4.2 Concept of Circulation

The circulation design to and within the Kayangan Grapes Agrotourism area is divided into two main groups, they are pedestrian and vehicle circulation. This lane separation is intended to crossing prevention and to ensure of safety and comfort for pedestrians and vehicles.



**Fig. 7.** Open Space Design Concept

### **4.3 Concept of Zoning**

Zoning in the area is formed through the arrangement of the existing area followed by the addition of new building masses. The new buildings masses will accommodate various activities in the area, such as culinary, support and management activities. The procurement of new building masses is expected to well organize the area for the Kayangan Grape Agrotourism.

### **4.4 Concept of Building Mass**

In response to the site area being overcrowded by existing houses dan grapes in each resident's yard, the new building will be placed in a possible empty area. Meanwhile, the pedestrian area will be designed to create an open, recreational, dynamic, and attractive impression (Fig. 7).

### **4.5 Concept of Building Appearance**

The shape and appearance of the building are designed to be responsive to the surrounding environment, by maximizing natural lighting and ventilation. The recreational elements are displayed to show a pleasant, attractive, and open impression (Fig. 8).

### **4.6 Concept of View and Orientation**

The view from the main road to the site needs to be optimized. One of the techniques for creating an attractive entrance design is designing an attractive masses building. The entrance area and the main mass need to have a close visual connection, and conversely.

### **4.7 Concept of Landscape**

The pedestrian and the grape yard are the largest area that needs to design attractively to support all spaces. One of the techniques to design the attractive and dynamic landscape of both softscape and hardscape elements is to increase the tourist attraction (Figs. 9 and 10).





**Fig. 8.** Building Design Concept



**Fig. 9.** Hardscape element of Landscape Concept



**Fig. 10.** Softscape element of Landscape Concept

## 5 Conclusion and Recommendation

### 5.1 Conclusion

The design of Kayangan Grapes Agrotourism accommodates the see, feel, and explore approach. This approach accentuates visitors' experiences to see, feel, and explore the area through various excursions and education activities. Aside from tourism, the visitors are expected can enhance their knowledge of the whole cultivation processes of grapes, from the seeding, planting, and harvesting, to post-harvesting. Therefore, this approach is translated into an open and dynamic site design, with many appealing activities.

This project applies community-based tourism where the management of agrotourism area is conducted by the village, from the village, and for the village. This approach is expected to empower the community, improve local tourism, as well as improve the local economy which can promote a sustainable economy in the region. As a result, a strong and competitive community which can independently develop their village will be achieved. The design of Kayangan Grapes Agrotourism is expected to be a pilot project for the design of other agrotourism villages in the North Lombok Regency.

### 5.2 Recommendation

As a further action of the design of the Kayangan Grapes Agrotourism area, the suggested implementations are as follows:

- Socialization regarding the design of this area is required, particularly in the community. The socialization aims to synchronize the vision and mission between the government and the community of the area.
- A clean, well-maintained and sustainable management of the kayangan grapes agrotourism area requires active participation and cooperation from the local community and the government.
- Sustainable education and training from the government to the local community are required, particularly regarding the management of the kayangan area as an agrotourism destination.
- It is necessary to establish cooperation with various schools in lombok, especially north lombok regency, to carry out study tours in the kayangan agrotourism area.
- Due to the limitation of total area, the production of grapes products can be done in the homes of each resident but still under the coordination of tourism-aware groups (pokdarwis)
- Enforcement of entrance tickets for visitors needs to be implemented with a profit-sharing mechanism between the local community (cultivators) and the government as a contribution to original regional income (pad)
- Regarding access to the area, visitors are required to pay an entrance ticket to be able to enjoy the area and all facilities
- It is necessary to provide land around the area that is used for plants other than grapes, in anticipation of decreasing grape yields during the rainy season.
- To create a more attractive and integrated area, the appearance of the residents' houses needs to be beautified so that it is visually attractive, uniform, and integrated with the overall concept of the area.

**Acknowledgment.** This research was supported by the Tourism Department of North Lombok Regency. We also thank Kayangan local communities for their valuable input during the development of this work.

## References

1. Ministry of Coordinator of Maritime Affairs and Investment Indonesia. Tourist Village Guideline, pp. 29-30. Jakarta (2021).
2. Ministry of Tourism and Creative Economy. Outlook of Tourism and Economic Creative Indonesia, Kemenparekraf, Jakarta (2021).
3. Ministry of Coordinator of Maritime Affairs and Investment Indonesia. Tourist Village Guideline, pp. 49-53. Jakarta (2021).
4. Federal Ministry for Economic Cooperation and Development (BMZ). A Practical Guide to 10 Steps Develop a Green Tourism Village, Bonn and Eschborn: GIZ GmbH, Jakarta (2021).
5. Ministry of Cooperatives and SMEs of The Republic of Indonesia Affairs and Investment Indonesia. Green Tourism Village Development Guidebook, p. 13. Jakarta (2017).
6. Ahmadi: Introduction to Agrotourism I: Learning from Various Perspectives. CV. IRDH, Malang (2017).

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

