



## Infrastructure development in Kenderan Village, Tegallalang sub-district, Gianyar regency

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### ABSTRAK

Gianyar Regency has many villages that can be relied upon as tourist destinations due to their cultural and natural potential. Kenderan Village has a natural atmosphere with vast stretches of rice fields and hills, which are the main attractions of this village. Various potentials can be developed through ecotourism concepts as tourist attractions. The development of tourist village infrastructure involves the arrangement of the area and environment to maintain its natural state, as well as the optimal development of other supporting tourist facilities that have not been utilized. The aim of this research is to identify the potentials in Kenderan Village (cultural, natural, and village potentials) and to determine the necessary infrastructure for the development of Kenderan Village as a tourist village. This study uses observation, interviews, and documentation as research techniques, employing the SWOT approach. The results of this research show that there are various tourism potentials that can be developed into various attractions and activities, which can be categorized into three types: natural potentials (rice fields, plantations, and natural beauty), cultural potentials (archaeological sites, Beji Telaga Waja, and Pura Griya Sakti Manuaba), and village potentials (Puri Agung Kenderan and traditional settlements). The development of tourism potentials in Kenderan Village is expected to provide optimal benefits for the local community, entrepreneurs, and the government in a sustainable manner, while contributing to environmental preservation.

**Keywords:** Development, Kenderan Village, Tourism Potentials

### 1 Introduction

Bali as a Province in Indonesia, is a leading tourist destination which every year becomes the country's main source of foreign exchange. Bali has a diversity of tourism potential which includes natural tourism and cultural tourism and is famous for the hospitality of its people, these elements make Bali a major tourist destination in Indonesia [1]. Nowadays, tourist villages have emerged which have become important tourist destinations in the world of tourism. Referring to the concept of People's Core Tourism (PIR) [2], the definition of a tourist village is a rural area that offers an overall atmosphere that reflects the authenticity of

the village in terms of socio-economic, socio-cultural, customs, daily life, and has building architecture.

The Bali Provincial Government, through the Department of Tourism and Culture, has had a village tourism development program since 2012. Many villages in Gianyar are competing to be recognized as tourism villages. Out of 76 villages in Gianyar, only 9 villages were designated as tourism villages by the year 2017 through the Decree of Gianyar Regent No. 429/E-02/HK/2017 [3]. The nine tourism villages are Singapadu Tengah, Singapadu Kaler, Taro, Kerta, Batubulan, Kemenuh, Mas, Kenderan, and Kedisian. The potentials developed by the communities in each village are quite diverse, ranging from markets to

culinary offerings, with the majority having strengths in natural and cultural attractions.

Gianyar Regency is one of the international and domestic tourist destinations which has various tourist attractions and is rich in arts, culture and crafts [4]. This Regency also has beautiful natural landscapes, such as expansive rice fields with the activities of the subak community, which present a strong attraction for tourists. The terraced subak system has created a breathtaking and magnificent panorama. However, the reality on the ground does not yet demonstrate how rural tourism development is proceeding effectively. In the Gianyar Regency Spatial Plan for the years 2023-2043 [5], the focus of tourism is divided. Gianyar Barat is designated for Bali's cultural tourism and craft center, Gianyar Tengah for cultural heritage, and Gianyar Utara for agriculture and water conservation. Tourism directed in the Gianyar Regency is primarily in the form of agro-tourism and eco-tourism.

Desa Kenderan is located in the Tegallalang District of Gianyar Regency, Bali Province. It is situated at 115.28955 E / -8.455958 S with a land area of approximately 650.00 km<sup>2</sup> and an altitude of around 600 meters above sea level. Desa Kenderan has a relatively flat terrain used for farming, rice fields, sacred sites, cemeteries, public roads, schools, and other purposes. The climate in Desa Kenderan is tropical, with minimum temperatures of 22°C and maximum temperatures of 28°C, with an average humidity above 80%. The boundaries of Desa Kenderan are: to the North: Desa Kedisan, to the East: Desa Sanding, to the South: Desa Tegallalang, and to the West: Desa Tegallalang [6].

Desa Kenderan is one of the exotic destinations in Gianyar Regency. By highlighting the potentials in each region, tourism villages can attract tourists and have distinctive characteristics. Desa Kenderan actually has great potential to be developed as a tourism village. In terms of destination, industry, marketing, and institutional aspects, Desa Kenderan possesses breathtaking natural scenery with terraced rice fields, art centers, and even traditional art markets on a small scale. The settlement pattern in Desa Kenderan is based on the Tri Hita Karana concept, which consists of *parahyangan* (sacred areas), *pawongan* (residential areas), and *palemahan* (agricultural and livestock areas), creating a harmonious environment [7].

The development of regions as tourist attractions is an industry that has received less attention from local governments, despite tourism being an economic activity that can become a catalyst for other economic sectors. This is evidenced by the low number of tourist visits, caused by the lack of government promotion, limited allocation of funds for the tourism sector, and underutilization of tourism infrastructure [8]. Tourism infrastructure includes all facilities that allow tourism facilities to live and develop and cater to

various types of tourists. Tourism facilities can be classified into basic tourism facilities, complementary tourism facilities, and supporting tourism facilities [9].

To support the development of tourism in Desa Kenderan, adequate tourism infrastructure is needed, such as transportation, telecommunications, information, security, electricity, energy, and their networks, to achieve the target number of tourist visits. Until now, there has been no research and evaluation regarding tourism infrastructure in the existing tourism villages in Desa Kenderan. Therefore, research on the development of tourism infrastructure to support Desa Wisata Kenderan is necessary [10].

Given this background, the research will focus on identifying tourism potentials, developing tourism infrastructure, and analyzing supporting factors, obstacles, opportunities, and threats, as well as formulating the development of Desa Wisata Kenderan. The benefits of this research are to provide additional insights into the potential for tourism development in the tourism village of Kenderan.

## 2 Research Method

In this research, data collection includes direct observation or observation, Focus Group Discussion (FGD), and interviews. This study is a descriptive research using the observation method. The data used consists of primary data obtained from respondents and secondary data collected from relevant institutions, research studies, books, and relevant information. Primary data refers to the main data collected directly through observation of the phenomena or objects being studied in the field and interviews with the key informants or respondents from Kabupaten Gianyar (Bappeda, Department of Culture and Tourism, Village Tourism Officials of Kenderan, Village Consultative Body, Supervisory Board of Cooperatives and Management of Tourism Cooperatives in Desa Kenderan).

### 2.1 Research Location

Kenderan Village as shown in Figure 1 has a land area of approximately 650 hectares, stretching relatively flat from North to South, and it is a fertile agricultural land with sufficient water supply, a tropical climate, and an altitude of 600 meters above sea level, making it a rice barn in the Tegallalang District. The administrative boundaries of Desa Kenderan are the village of Kedisan to the north, Sanding village to the east, Tegallalang village to the south, and Desa Tegallalang to the west.

Desa Kenderan has 3 traditional banjars and 10 official banjars. Some of these banjars are Banjar Kepitu, Banjar Kenderan, Banjar Gunaksa, Banjar Pinjul, Banjar Dukuh, Banjar Triwangsa, Banjar Tengah, Banjar Tangkas, Banjar Pande, and Banjar Dlodblumbang. Meanwhile, three traditional villages in Desa Kenderan oversee several of these banjars,

such as Desa adat Dlodblumbang, which oversees Banjar Dlodblumbang; Desa adat Manuaba, which oversees Banjar Pande, Banjar Tangkas, Banjar Tengah, Banjar Triwangsa, Banjar Gunaksa, Banjar Pinjul, and Banjar Dukuh; and Desa adat Kenderan, which oversees Banjar Kenderan and Banjar Kepitu.

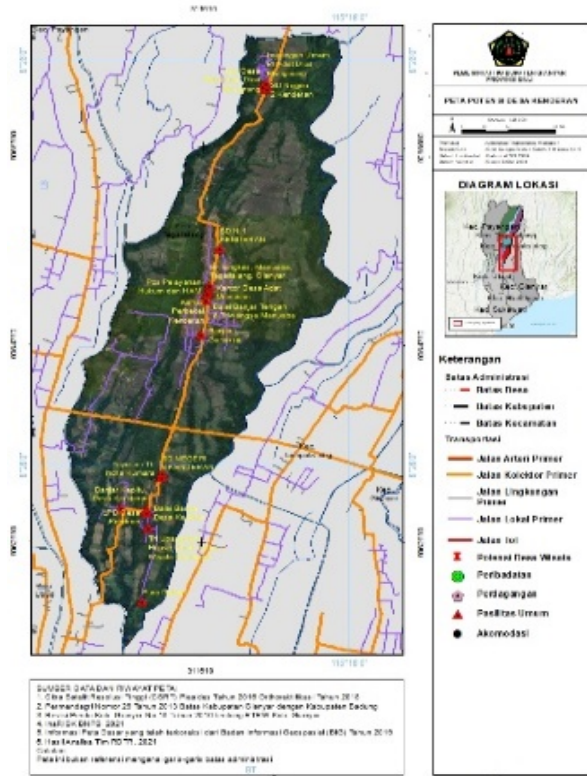


Figure 1. Administrative map of Kenderan village

Table 1. SWOT Matrix [11]

Internal	Strength	Weakness/	
	Ekternal		
Opportunity	Threats	S-O	W-O Strategy: Strategies that address weaknesses while taking advantage of opportunities
Threat	S-T Strategy: Strategies that utilize strengths to mitigate threats	W-T Strategy: Strategies that address weaknesses and mitigate threats	

The research method used in this study is the SWOT approach as show in Table 1. The SWOT approach is a technique used to systematically identify various factors for formulating strategies. SWOT is an analytical tool developed by [11] that is used to find the best strategies in decision-making based on internal strengths and weaknesses, as well as external opportunities and challenges. According to [12], the SWOT matrix is a matrix that interacts with strategic internal and external factors. This matrix can clearly illustrate how external opportunities and threats can be matched with internal strengths and weaknesses. In [13] definition, the SWOT matrix is an identification tool used systematically to determine Strengths, Weaknesses, Opportunities, and Threats in formulating strategies.

### 3 Results and Discussion

#### 3.1 Tourism Potentials

Exploring the potential to be developed and utilized for certain purposes and getting to know the potential in depth is an important agenda for a region [14]. Kenderan Village, located in Tegallalang Sub-district, Gianyar Regency, is an exceptionally exotic village with great potential for tourism development as shown in Figure 2. The village sits at the intersection of several popular tourist destinations, such as Ubud, Tampaksiring, Goa Gajah, and others. Its potentials are highly attractive, encompassing natural, cultural, and spiritual aspects. The potentials for development include:

**Physical Potentials:** Kenderan Village offers captivating natural landscapes, excellent rice tracking trails, traditional house buildings, historical heritage sites, sacred places, and easy accessibility. These physical potentials are the main attractions for nature, cultural, and traditional tourism. **Non-Physical Potentials:** The vibrant community lifestyle, religious ceremonies, cultural arts, and hospitable residents provide a unique and enriching cultural experience for tourists, making Kenderan Village a sought-after destination for cultural and spiritual tourism.

#### A. Natural Tourism

The types of natural potentials found in Kenderan Village Tourism are as follows:

**Rice Field Area:** The vast and picturesque rice fields are the main attraction of Kenderan Village Tourism. Geographically, the village is located in a highland area with a landscape of fertile rice fields.

**Terraced Rice Fields:** The extensive rice fields are cultivated using a terraced system due to the hilly terrain. The terraced fields and wide embankments create a visually appealing landscape, making it suitable for tracking and cycling tours to explore the rice fields and visit the Manuaba Waterfall.

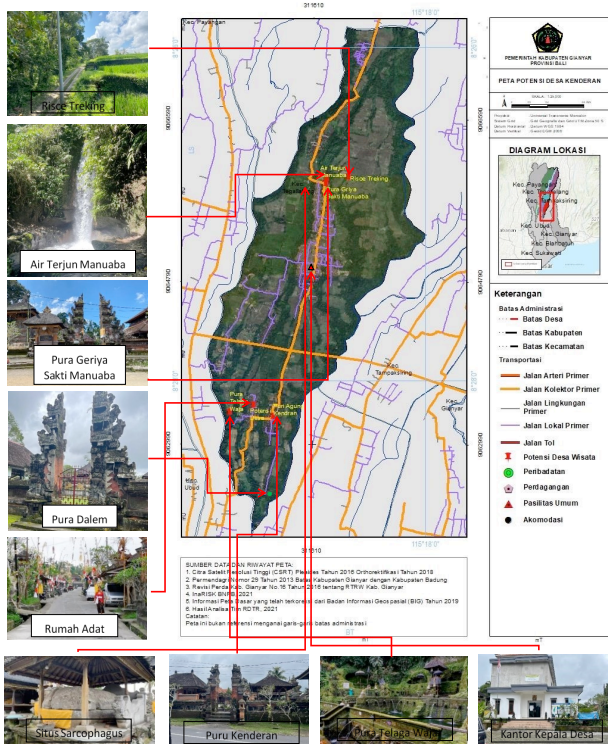


Figure 2. Mapping of existing potentials

**B. Cultural Tourism**

The preservation of cultural heritage and cultural landmarks in Kenderan Village is essential to maintain their historical, educational, religious, and cultural significance. Some of the cultural heritage sites and objects worth preserving in Kenderan Village include:

**Pura Dalem Kenderan:** A significant temple in the village, holding religious and cultural importance for the local community. **Pura Griya Sakti Manuaba:** Another important temple that plays a role in preserving local traditions and customs.

**Ancient Sarcophagi:** Historical relics in the form of sarcophagi, representing the village's past.

**Pesiraman Telaga Waja:** A sacred bathing area with cultural and spiritual significance.

Preserving these cultural heritage sites and objects is crucial to maintaining the cultural identity and heritage of Kenderan Village, contributing to the enrichment of history, knowledge, religion, and local culture.

**C. Potential of Traditional Houses**

Kenderan Village also offers traditional Balinese architectural buildings as one of its physical potentials. The village preserves traditional Balinese architecture, the application of Sanga Mandala and Asta Kosala Kosali concepts that are still sustainable to this day, and the preservation of traditional houses in Banjar Kepitu.

**3.2 Infrastructure Development in Kenderan Village**

Infrastructure plays an important role as one of the driving wheels of development and economic growth. The existence of adequate infrastructure is very necessary and is a very important part of the public service system [15]. Kenderan Village has started to develop with the presence of villas, accommodation facilities, transportation, marketing through websites/blogs, village institutions, and government agencies that accommodate tourism development, as well as community participation in tourism institutions.

**Tourism Infrastructure** The development of tourism activities requires adequate infrastructure. In the context of tourism development in Kenderan Village, the provision of tourism infrastructure refers to the development and provision of facilities and infrastructure that can support tourism activities. In the context of tourism, tourism facilities and infrastructure are the complements of tourist destinations needed to serve the needs of tourists during their stay.

**Identification of Potential and Tourism Infrastructure Development** The development of Kenderan Village attractions with a SWOT approach is obtained by analyzing the strengths, weaknesses, opportunities, and threats that the village faces in its development as a tourist destination. The following are the results of the SWOT approach to support the development of tourism in Kenderan Village (Table 2):

1. **Strengths:** The driving factors for Kenderan Village tourism development include attractive rice field landscapes, preserved traditional Balinese architecture, historical relics, and sacred places for spiritual tourism, historical relics found in the village area, good accessibility, traditional community life, religious ceremonies, rich cultural activities, and the hospitality of the villagers.
2. **Weaknesses:** The weaknesses that hinder tourism development in the village are insufficiently developed tracking routes, the absence of sustainable tourism programs, suboptimal management of the village as a tourist destination, lack of accommodation for tourists, inadequate public facilities to support tourism, language barriers between villagers and tourists, religious activities held on specific days only, limited promotion, and lack of cooperation between the village and travel agents or tour operators.
3. **Opportunities:** Opportunities that can promote tourism development in Kenderan Village are its proximity to famous tourist attractions, the growing trend of rural tourism, increasing tourist visits annually, foreign markets' interest in culture and natural tourism, technological



advancements supporting Kendran Village's promotion, support from the Gianyar Regency government in its development as a tourist destination, and the growing interest in spiritual tourism.

4. Threats: Threats to tourism development include increased competition in the global tourism

industry, younger generations' lack of interest in rural life, the commercialization of culture, Indonesia's unstable political and security situation, and the threat of terrorism in Indonesia.

**Table 2.** Strategy Matrix for Development of Tourism Potential and Infrastructure for Kendran Tourism Village

Internal	Strengths	Weakness
Eksternal		
Opportunity	Strategi S-O	Strategi W-O
Kenderan Village is located close to famous tourist attractions.	Developing nature, cultural, and spiritual tourism to the maximum extent	Establishing village tourism programs for Desa Kenderan
The current trend of rural tourism is growing.	Improving collaboration between the village and the central government in providing tourism facilities and infrastructure	Developing trekking trails for tourists
Tourist visits are increasing every year.	Enhancing marketing strategies for rural tourism products.	Developing local houses as homestays
There is a significant foreign market interested in culture and natural tourism.		Constructing public facilities such as toilets, parking lots, accommodations, etc.
Technological advancements and information support the promotion of Kendran Village.		Collaborating with travel agents
There is support from the Gianyar Regency government in its development as a tourist village.		Creating smooth and beautiful accessibility to tourist attractions.
There is progress in information technology and transportation.		
Spiritual tourism is flourishing in rural areas.		
Threat	Strategi S-T	Strategi W-T
Increasing competition in the world of tourism	Maintaining the authenticity of the village's natural surroundings as a key identity and main potential.	Increasing promotion to introduce Desa Kenderan.
Younger generations who are less interested in rural life	Increasing the awareness of the village's youth to preserve culture.	Providing training for the villagers, especially in the field of tourism and foreign languages.
Rising commercialization of culture		
Unstable political and security situation in Indonesia		
Presence of terrorism in Indonesia.		

#### 4. Conclusion

Based on the results and discussions presented, the potentials of Desa Kenderan, both physical and non-physical, can be summarized as follows: The natural landscape of Desa Kenderan, Rice Tracking trails, Traditional House Buildings, Sacred Sites, Historical Heritage, Accessibility, Rural Community Life, Religious Ceremonies, Cultural Arts, and the Hospitality of the Village's People towards tourists. There are various tourist attractions that can be developed in Desa Kenderan. Through the SWOT analysis, strategies are formulated as tourism development programs, including developing infrastructure such as expanding and arranging rice tracking trails to improve smooth and scenic access to tourist destinations.

Based on the discussions, several suggestions can be proposed for the general development of Desa Kenderan and the development of tourist attractions in Desa Kenderan specifically, including:

1. Designing and establishing tourism programs or packages that will be implemented in Desa Kenderan as a tourist village.
2. The Gianyar Regency Government, along with the village authorities, should promptly undertake improvements and developments in Desa Kenderan to have adequate tourism facilities and infrastructure for tourists, such as public toilets, halls/wantilan for receiving tourists, accommodations, restaurants, etc.
3. Conducting promotions through brochures and internet facilities to raise awareness of Desa Kenderan among tourists, not only locally but also internationally.
4. Always maintain the safety and cleanliness of the village as an additional advantage that makes tourists trust visiting Desa Kenderan.

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