

## CHARACTERISTICS OF SUSTAINABLE BALI AGA MOUNTAIN TOURISM IN THE FACE OF TOURISM INVASION

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### Abstract

This study identifies the defining characteristics of sustainable mountain tourism as practiced by the Bali Aga, the indigenous communities of Bali's highlands. In contrast to the widespread agricultural land conversion for tourism in lowland Bali, Bali Aga villages have preserved their cultural and environmental integrity. Through a qualitative methodology involving field observation and document analysis, this research finds that sustainability is achieved through a combination of geographical isolation, which forms remote cultural enclaves, and a profound adherence to local philosophies. The principles of Tri Hita Karana (harmony with God, humans, and nature) and Sad Kerthi (holistic environmental and spiritual well-being) are institutionalized through strong customary laws (*awig-awig*) and practices (*dresta*) that strictly regulate land use and prohibit disruptive tourism commercialization. Furthermore, their unique architectural identity, which utilizes natural materials like bamboo and thatch, embodies their ecological ethos. The Bali Aga demonstrate a resilient model of tourism where cultural preservation, traditional governance, and environmental stewardship are intrinsically linked, allowing them to withstand the pressures of tourism invasion and maintain a sustainable existence.

**Keywords:** Bali Aga, sustainable mountain tourism, Tri Hita Karana, Sad Kerthi, customary law..

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### A. INTRODUCTION

Bali is one of the tropical islands in Indonesia that is famous as a tourist destination. It has long been a popular destination for tourists, with a rich cultural heritage and stunning natural beauty. Bali Province is an administrative region in Indonesia located in the

northeastern part of Java Island. In 2024, the population of Bali Province reached 4,361,106 people, with a population density of 747 people/km<sup>2</sup> (BPS Bali Province, 2024).

The Balinese people themselves can be categorized into Bali Aga and Bali Javanese or Bali Majapahit. Bali Aga, also referred to as Bali Mula or Bali Mountains are the original inhabitants of Bali. The Bali Aga have preserved ancient customs, unique architectural styles, and traditional government systems (Covarrubias, 2018). In contrast, the Javanese Balinese influenced by the Majapahit kingdom embraced Hinduism, a hierarchical social structure in the caste system and integrated Hindu beliefs into their cultural practices (Geertz, 1991).

According to Reuter (2002), Bali Aga society refers to a group of indigenous people who live in the mountainous areas of Bali, and are considered the custodians of a rich ritual and cultural heritage, with spiritual beliefs and practices tied to nature and the surrounding environment. Bali Aga has a unique belief system, where they respect the mountain as a sacred place and center of spiritual life. In addition, they also have distinctive social structures and ritual procedures, which reflect the close relationship between humans and nature. Nordholt (2004) adds that Bali Aga emphasize the importance of their role in preserving their distinctive cultural heritage and spirituality, as well as the challenges they face in the midst of modernization and social change due to the invasion of tourism.

Based on the 2010 population census, the population of Bali Province totaled 3,890,757 people. Although indigenous, the Bali Aga people are a minority, numbering only 19,999 (0.51%) compared to the Majapahit Bali of 3,318,065 (85.28%). They live side by side with migrants such as Javanese, Madurese, Malay, Sasak, Chinese, Bugis, Sundanese, and Batak (BPS Bali Province, 2010).

Bali Aga communities are located in several areas of Bali, especially in mountainous and highland areas. Bali Aga villages are spread across seven regencies in Bali Province, including Karangasem Regency (12 villages), Buleleng Regency (14 villages), Bangli Regency (25 villages), Gianyar Regency (3 villages), Klungkung Regency (2 villages), Badung Regency (2 villages), and Tabanan Regency (3 villages). Bangli Regency has the most villages. There are 25 villages located in four sub-districts, namely Kintamani, Bangli, Susut, and Tembuku (Yudantini, 2022). In Bangli Regency, especially in Kintamani Sub-district, which houses around 19 villages, the location is at the foot of Mount Batur and along Lake Batur, thus emphasizing its connection to the mountainous landscape (Yudantini, 2020).



**Figure 1.** Some of the Bali Aga villages surrounding the Batur lake and mountain; with Trunyan as its icon.

Source: Google Earth

The rapid growth of the tourism industry in Bali has led to significant land conversion, particularly from agricultural land to tourist infrastructure, which has had a major impact on the island's ecosystem, economy, and indigenous culture. Ecosystem-wise, the increasing demand for tourism has resulted in productive agricultural land being diverted to non-agricultural uses, such as for villas, hotels, and restaurants, leading to the reduction of fertile rice fields and the degradation of the Subak system, which is critical for local water management and cultural heritage (Tarigan, 2016; Eryani, 2020; Wirata, 2021). The Subak system is a democratic and egalitarian system of agricultural governance that has existed for more than 1,200 years, critical to maintaining agricultural productivity and cultural heritage on the island (Colorni, 2018).

On the economic, the contribution of the agricultural sector to Bali's GRDP (Gross Regional Domestic Product) continues to decline, from 17.2% in 2010 to 13.8% in 2018. This decline is due to the increasing conversion of agricultural land for tourism purposes. The rapid development of tourism has resulted in a high rate of land conversion of an average of 700 hectares per year (Ariyudha, Nahak & Senastri, 2021).

Bali's cultural heritage is closely related to its agricultural practices. In addition to the Subak system, agricultural practices also reflect the values of Tri Hita Karana and Sad Kerthi (Ariyudha, Nahak & Senastri, 2021). Tri Hita Karana is a traditional Balinese philosophy that emphasizes harmony between three main elements: relationship with God (*parahyangan*), relationship between humans (*pawongan*), and relationship with the environment (*palemahan*). This concept guides various aspects of Balinese life (Sudrajat, 2021). While Sad Kerthi is a fundamental concept in Balinese culture, it is a Hindu philosophy that emphasizes six noble behaviors that are important to achieve holistic and sustainable development. These behaviors, known as *Atma Kerthi*, *Jana Kerthi*, *Jagat Kerthi*, *Danu Kerthi*, *Wana Kerthi*, and *Samudra Kerthi*, are designed to balance and harmonize various aspects of life, including purification of the soul (*Atma Kerthi*), human resource development (*Jana Kerthi*), regional welfare (*Jagat Kerthi*), sustainable lake management (*Danu Kerthi*), forest sustainability (*Wana Kerthi*), and ocean sustainability (*Samudra Kerthi*) (Wiana, 2018; Triguna, Mayuni & Sutrisno, 2022).

Compared to Bali Majapahit villages, there is no conversion of agricultural land in Bali Aga villages. This may be due to a combination of traditional ecological practices, community governance, and cultural beliefs that prioritize environmental sustainability. The Bali Aga community, especially in Trunyan and Tenganan, adheres to the Tri Hita Karana principle. This philosophy is reinforced by customary law (*awig-awig*) that regulates land use and prioritizes environmental management (Qodim, 2023).

Bali Aga also maintain a wealth of traditional ecological knowledge that guides their agricultural and land management practices, to ensure the preservation of their ecosystems. Their commitment to sustainable practices is evident in the management of customary forests, which are integral to their identity and livelihoods (Qodim, 2023). The tourism invasion that pressurized Balinese Majapahit villages did not happen in Bali Aga villages due to the Balinese

Aga community's adherence to its customary laws and the local government's recognition that could help reduce agricultural land conversion (Udayana, 2018; Satyawati, Suyatna, Yasa, Palguna & Sumadi, 2024).

## **B. RESEARCH METHOD**

The purpose of this research is to identify and analyze the characteristics of sustainable mountain tourism in Bali Aga communities. This research aims to understand how Bali Aga communities maintain their traditions and culture in the context of growing tourism, as well as explore sustainable practices applied in the management of natural resources and the environment. In addition, this research also wants to explore the role of Tri Hita Karana and Sad Kerthi philosophies in maintaining the authenticity of culture and ecosystems in Bali Aga villages.

The research method used in this study is a qualitative approach with data collection techniques through interviews, observation and document analysis. Observations were conducted during visits to Bali Aga villages such as Penglipuran, Tenganan and Trunyan, to directly understand the interaction of the community with the environment. Document analysis was conducted on relevant literature and local policies to support the data obtained from observation.

## **C. FINDINGS AND DISCUSSION**

Remote and enclave-shaped locations.

Bali Aga communities are mostly located in remote areas of Bali, characterized by mountainous, hilly and highland areas. This geographical isolation allows them to preserve their cultural practices and unique architectural styles, which distinguish them from the Balinese Javanese. The isolation of these communities facilitated the preservation of indigenous traditions, as they largely resisted external influences, especially from the Majapahit Kingdom (Yudantini & Darma, 2022).

The Bali Aga village region can be described as an enclave due to its distinct cultural and geographical isolation and remoteness in the wider Balinese context. An enclave is a remote region or area entirely surrounded by geographically or culturally distinct areas around it (Wright, 2002), often associated with unique social, cultural or economic aspects (Curl & Wilson, 2015). Bali Aga communities, such as the villages of Tenganan, Penglipuran, and Pedawa, are characterized by unique cultural traditions, architecture, and language, which set them apart from the rest of Bali (Prayoga, 2024).



**Figure2.** The isolated, enclave-shaped villages of Pedawa, Penglipuran and Tenganan  
Source: Google Earth

### Obedience to custom

Balinese Aga adherence to the Tri Hita Karana philosophy can be understood through deep-rooted cultural values and practices that emphasize harmony between humans, nature and God. Their commitment to maintaining a balanced relationship with nature is seen in their traditional ecological knowledge, which plays an important role in environmental protection and sustainable practices (Qodim, 2023; Arsana, Dharma & Yekti, 2022). This relationship is not only about conservation but also about recognizing the spiritual significance of nature, which is an integral part of their cultural identity. The practices of Bali Aga people reflect a deep respect for the environment, which they view as a living being worthy of nurturing and respect (Qodim, 2023; Suryawan, Putri, Geriadi, Dwijyanthi & Miranti, 2024).

In addition, the Tri Hita Karana philosophy is also a framework for social cohesion in Bali Aga society. The emphasis on *Pawongan* (relationship between humans) fosters strong interpersonal relationships, fostering a sense of community and mutual support between members. This social structure is essential for conflict resolution and maintaining harmony, as seen in their traditional practices of negotiating and consensus building. The community's adherence to these values ensures that individual actions are aligned with collective well-being, thus strengthening their commitment to the Tri Hita Karana principle (Wijaya & Artajaya, 2020; Mada & Putri, 2023).

In addition, the Bali Aga's adherence to Tri Hita Karana is manifested in their rituals and cultural expressions, which often reinforce these values. Rituals not only honor the divine but also reaffirm the community's relationship with their ancestors and nature. Such practices are crucial for the transmission of cultural knowledge and the strengthening of communal identity, ensuring that the teachings of Tri Hita Karana are preserved for future generations (Peterson, 2017; Wirawan & Pendit, 2017).

The Balinese Aga community's adherence to the Sad Kerthi principle can be seen from their adherence to local wisdom that prioritizes environmental sustainability, social harmony, and spiritual well-being. Sad Kerthi, which includes six noble behaviors - *atma* (soul), *samudra* (ocean), *wana* (forest), *danu* (water), *jagat* (universe), and *jana* (humanity)-serves as the basic framework of Bali Aga culture. This philosophy is deeply integrated into their daily lives and

rituals, reflecting a commitment to maintaining balance and harmony within their communities and environment (Wiana, 2018; Winanti, 2024).

The Balinese Aga's adherence to Sad Kerthi is evident in their sustainable practices in the management of forests and water resources. The concept of Wana Kerthi highlights the importance of forests as a vital life support, and Bali Aga people are actively involved in the practice of protecting these natural resources (Parwata, Pusparini & Harmini, 2022). Their traditional rituals, such as Tumpek Bubuh, are designed to honor and preserve forests and their ecosystems, demonstrating a deep respect for nature in line with the principles of Sad Kerthi (Sanjaya & Arthana, 2021). This relationship with the environment is not only about conservation but also about recognizing the spiritual significance of natural elements, which is a core aspect of their cultural identity.

The implementation of Sad Kerthi among the Bali Aga community fosters social cohesion and collective responsibility. The emphasis on jana (humanity) encourages communal activities that strengthen interpersonal relationships and promote a sense of mutual support among community members (Wiana, 2018; Parwata, Pusparini & Harmini, 2022). These social structures are crucial for conflict resolution and maintaining harmony, as communities often rely on consensus-building practices rooted in their cultural values (Winanti, 2024).

In addition, the Bali Aga community's adherence to Sad Kerthi is reflected in its governance and community organization. Sad Kerthi principles are often incorporated into local regulations and policies that aim to harmonize cultural practices with environmental conservation efforts (Sugiartawan, Sudipa, & Wiguna, 2022; Parwata, Pusparini & Harmini, 2022; Andrea, 2024). For example, local regulations in Bali emphasize the integration of Sad Kerthi values into tourism development, ensuring that cultural heritage and environmental sustainability are prioritized (Sugiartawan, Sudipa & Wiguna, 2022). This alignment of local governance with Sad Kerthi principles illustrates the community's commitment to preserving cultural identity while adapting to current challenges.

In Bali Aga culture there is the concept of “*dresta*” which refers to the traditional customs and practices that shape the social structure and life of the community. This cultural framework is particularly evident in Bali Aga villages, where obedience to ancestral customs remains strong despite external influences, especially tourism. One such adherence to *dresta* is the prohibition of tourist accommodation in the tourist village of Tenganan. This *dresta* is an agreement with the indigenous community to prohibit the construction of tourist accommodation in any form and the commercialization of land for tourism (Prayoga, 2023; Grehenson, 2023). Based on observations and media sources, in Penglipuran village there is a village-owned guest house that has original architecture. In this guest house, there are only 3 rooms without television and internet (Krisnayanti, 2023).

#### Original architecture and use of natural materials

Due to their adherence to ancient customs and traditions, Bali Aga communities display a unique architectural style that is deeply rooted in the use of natural materials. This architectural approach not only reflects the cultural identity of the local community but also emphasizes sustainability and harmony with the environment, in line with the principles of Tri Hita Karana (Yudiantini & Jones, 2015; Qodim, 2023).

Bali Aga architecture is characterized by the use of locally sourced materials such as bamboo, wood, stone, and straw. These materials are not only abundant but also environmentally friendly, allowing for structures that blend seamlessly with the natural landscape. Traditional houses, known as “Umah”, are typically built using bamboo and wood, which are favored for their durability and flexibility. The roof is often made of *alang-alang* grass or palm leaves, providing effective insulation while maintaining aesthetic harmony with the surrounding environment (Yudiantini & Jones, 2015; Luxiana Parwata & Kurniawan, 2021).

The layout of Bali Aga villages is also important, often designed around the principles of Tri Hita Karana, which emphasizes spatial arrangements that encourage community interaction and environmental stewardship (Qodim, 2023; Wijaya & Artajaya., 2020). The arrangement of buildings within the village reflects a deep respect for the natural environment, with communal spaces encouraging social cohesion and cultural practices (Wijana & Setiawan, 2020).

The use of natural materials in Bali Aga architecture is not just a practical choice, but it is also filled with cultural significance. Each material carries symbolic meaning and is often associated with specific rituals and traditions. For example, bamboo is considered a symbol of strength and flexibility, while wood is often used in sacred buildings, reflecting the spiritual beliefs of the community (Pratama, 2023; Maharani, 2021). The integration of these materials into architectural practice strengthens the community's connection to ancestral heritage and nature.



**Figure 3.** Use of natural materials on roofs, poles, walls, and floors in buildings in Tenganan village  
Source: Commons Wikimedia, 2009

Moreover, Bali Aga architectural practice is influenced by its historical context. The Bali Aga community, which resisted external influences during the Majapahit period, has maintained its architectural identity, which is visible in its traditional buildings (Yudiantini & Jones, 2015; Yudiantini, 2020). The preservation of this architectural style is evidence of their resilience and commitment to cultural continuity.

The Bali Aga approach to architecture provides an example of sustainable practices that are increasingly relevant in contemporary discussions on environmental conservation. By utilizing natural materials, the community minimizes its ecological footprint and increases

biodiversity (Qodim, 2023; Wijana & Setiawan, 2020). The construction techniques used are often low-impact, thus ensuring that the surrounding ecosystem is maintained and respected.

In addition, the Tri Hita Karana principle guides Bali Aga in interacting with the environment, promoting practices that ensure the sustainability of their resources. For example, communities apply traditional ecological knowledge underpinning their house-building practices, and ensure that they do not deplete local resources (Qodim, 2023; Wijana & Setiawan, 2020). A harmonious relationship with nature is a core aspect of their architectural philosophy, which prioritizes the well-being of the community and the environment. They also have a village defense mechanism that mirrors the *dresta*, which emphasizes the surveillance of nature and communal spaces to maintain social order (Swanendri & Suryada, 2023).

#### D. CONCLUSION

Sustainable mountain tourism in Bali Aga communities shows that the Bali Aga people have managed to maintain their traditions and culture despite facing pressure from tourism development. Geographic isolation and commitment to the principles of Tri Hita Karana and Sad Kerthi have enabled them to preserve their cultural practices, unique architecture and sustainable management of natural resources. The existence of customary laws and strong social structures also play an important role in maintaining environmental and cultural integrity. With an approach that emphasizes the use of natural materials in architecture and the preservation of ecosystems, Bali Aga communities are a living example of how tourism can thrive without compromising cultural and environmental heritage.

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