

Implementation of the Tri Hita Karana Philosophy as a Local Regulatory Mechanism for Sustaining Subak Anggabaya, Denpasar, Bali, Indonesia

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Abstract. Land conversion remains a major threat, often driven by development and investor disregard for customary laws. Subak Anggabaya, however, enforces officially recognized awig-awig, and is being developed by the Denpasar City Government under the Subak Lestari program to protect agricultural land. While the principles of THK continue to hold firm, the subak system is increasingly pressured by modernization, environmental degradation, and the transformation of rice fields into tourism developments. The concept of Tri Hita Karana comes from three words: Tri (Three), Hita (Happiness), and Karana (Cause). The formulation of the problem in this research is how is the implementation of the Tri Hita Karana philosophy in the awig-awig in Subak Anggabaya. The types of data used in this study is qualitative data. The data collection methods used in this study are as follows: 1). Interviews; and 2) Literature study. The research population consisted of the Pekaseh Gede and three Subak administrators. The method used in this study is qualitative descriptive analysis, a type of qualitative research. The result of this research is the implementation of three aspects of the concept of Tri Hita Karana in Subak Anggabaya, namely: 1) Parhyangan, in the Subak Anggabaya area, the application of the aspect is ceremonial activities carried out from the beginning of agricultural activities to harvest; 2) Pawongan, Subak is an organization where there is often interaction between fellow subak people; 3) Palemahan is an important aspect, especially in maintaining the continuity of nature.

Keywords: awig-awig; existence; qualitative descriptive; subak; tri hita karana

INTRODUCTION

Bali is known as an island rich in unique and distinctive cultural heritage ([Joni & Hadiwono, 2023](#)). The uniqueness of culture in the Balinese agricultural system is practiced by a traditional institution called subak ([Sriartha & Giyarsih, 2015](#)). Subak is also defined as an organization that regulates the irrigation system of rice fields in Bali, which has developed and changed according to environmental conditions ([Geria et al., 2019](#)). Bali Province has 1,604 rice field subaks and 1,107 abian subak ([Suryawan, 2018](#)). Bali Provincial Regulation Number 9 of 2012 states that Bali is the only province that maintains the sustainability of the subak institution ([Peraturan Daerah Provinsi Bali Nomor 9 Tahun 2012 Tentang Subak, 2012](#)). The regulation states that subak is a traditional organization in the field of water use at the farming level of the Balinese indigenous community, which has historically grown and

developed in a socio-agrarian, religious, and economic context.

Subak, a typical Balinese irrigation system, is influenced by Hinduism, particularly due to the religious ritual ceremonies that are integral to every action ([Dessy Vitiara et al., 2024](#)). In addition, Hinduism has the concept of Tri Hita Karana, which influenced the development of subak in Bali. Consequently, the subak system also evolved based on the THK concept in managing its irrigation system ([Windia & Gede Sedana, 2015](#)). In addition, subak has universal noble values and is very relevant to implementing the concept of sustainable development. Pitana (1993) in ([Rusadi et al., 2024](#)) and ([Satrya et al., 2023](#)) defines subak as an organization of wetland farmers who obtain irrigation water from the same source, have one or more Bedugul Temples, and have the freedom to manage their organization.

Since June 29, 2012, the United Nations



Educational, Scientific, and Cultural Organization (UNESCO) has recognized subak as a World Cultural Heritage (WHC) because of its natural beauty and universal values and benefits for humanity ([Dessy Vitiara et al., 2024](#)) and ([Wiranatha et al., 2024](#)). UNESCO recognizes the subak system in Bali as a World Cultural Heritage, with the title "Cultural Landscape of Bali Province, Subak as Manifestation of the Tri Hita Karana Philosophy" ([Juniasa et al., 2022](#)). Subak has been recorded as a cultural heritage for more than a thousand years, as stated in the Pandak Bandung Inscription ([Randa, J., 2014](#)). Bali has had a regular agricultural and irrigation system since 882 AD, as mentioned in the Sukawana AI Inscription and the Bebetin AI Inscription in 896 AD ([Wasis, 2024](#)).

Subak is a customary law community with socio-agrarian-religious characteristics that manages irrigation water in rice fields ([Mulyati, 2019](#)). According to Roth & Sedana (2015) in [Sukanteri et al. \(2021\)](#), subak can cover areas ranging from a few to hundreds of hectares and have their own rules, which in Balinese are called awig-awig. In addition, Subak has the responsibility to determine the type of rice to be planted, the time of land preparation, sowing seeds, planting rice, and regulating land rotation in relation to implementing good farming practices ([Aryawan et al., 2013](#)). The main functions of subak as stated above, have been conveyed in more detail by Windia (2006) and Sudarta (2012) in [Mahmudah et al., 2016](#)) and ([Satrya et al., 2023](#)) namely Subak functions include distributing irrigation water, maintaining irrigation systems, mobilizing resources through member contributions, resolving water-related disputes through deliberation, and performing unique religious ceremonies tied to the rice farming cycle, from water sourcing to harvest.

In relation to sustainability, the Brundtland Commission in [Lestari et al., 2015](#)) stated that what is meant by sustainability is an activity to guarantee current needs, by considering future

generations in obtaining their needs. Subak is in line with the concept of sustainable agriculture, which is one of the implementations of the concept of sustainable development, which includes 3 dimensions of development, namely economic, social, and environmental, as put forward by Mulyadi et al. (2015) in [Pratama et al., 2024](#)). Balinese people generally often imagine that subak is a picture of a rice field complex with a certain area and boundaries, rice farmers who are gathered in one organizational container that is engaged in irrigation water management and the physical system or network itself such as telabah (channels), empelan (water reservoirs in rivers), tembuku (water distribution buildings), and other facilities ([Lestari et al., 2015](#)).

Farmers may keep their land if conversion is restricted through proper spatial planning and regulations. Bridging the urban-rural economic gap can also discourage youth from leaving agriculture for city life. According to data from the Central Statistics Agency of Denpasar City in 2016, the land in Denpasar City is categorized into agricultural land, non-agricultural land, and rice fields. The area of rice fields in Denpasar City in 2016 was 2,444 hectares (19.13 percent), 510 hectares (3.99 percent), and 9,824 hectares of non-agricultural land, accounting for 76.88 percent of the total land area. The area of rice fields in Denpasar City decreased by around 1.41 percent from 2,479 hectares in 2015 to 2,444 hectares in 2016. The existence of subak has been forced by the increasing population of Denpasar City and rapid economic growth ([Badan Pusat Statistik Kota Denpasar, 2016](#)).

Land conversion remains a major threat, often driven by development and investor disregard for customary laws. Subak Anggabaya, however, enforces officially recognized awig-awig, and is being developed by the Denpasar City Government under the Subak Lestari program to protect agricultural land. According to the Denpasar City Agriculture Office, farmers in Anggabaya generally have a positive view of

the Subak Lestari concept, including support in social, economic, and technical aspects. While the principles of Tri Hita Karana remain steadfast, the subak system is increasingly pressured by modernization, environmental degradation, and the conversion of rice fields into tourism developments. The concept of Tri Hita Karana is derived from three words: Tri (meaning "three"), Hita (meaning "happiness"), and Karana (meaning "cause"), thus representing the three causes of happiness.

Subak faces problems because Balinese tourism reduces the desire of the younger generation to work in agriculture (Purnawan & Sardiana, 2018). There is a tendency for the number of people working in the agricultural sector to decrease and those working in the industrial sector to increase (Handayani et al., 2019). The development of tourism in Indonesia is currently experiencing a significant increase (Yusnita, 2019). Land conversion is a change in land function to

another function to fulfill certain desires of the landowner (Satrya et al., 2023). According to Wiraraja et al. (2016), as cited in Lesmana et al. (2022), uncontrolled agricultural land conversion, if left unaddressed, can pose serious problems, including a threat to the capacity to provide food.

Although the conversion of rice fields in Bali is unavoidable, it can be overcome. One of the main factors suspected of driving the conversion of rice fields is the existence of LC (Land Consolidation). This consolidation system supports infrastructure and housing development, often leading to abandoned rice fields due to water shortages, damaged irrigation, or a lack of willing farmers. An overview of the shrinking of rice fields in Bali is presented in Table 1. It appears that the largest percentage of rice field shrinkage occurred in Denpasar City, which was 7% throughout 2009-2013 (bps.go.id, 2018).

Table 1. Area of Rice Fields by Regency/City in Bali Province, 2009 - 2013 (Ha)

No	Regency/City	2009	2010	2011	2012	2013	Decrease	%
1	Kab. Jembrana	5,522.00	6,769.00	6,705.00	7,057.29	6,811.00	1,289.00	23
2	Kab. Tabanan	22,465.00	22,315.00	21,480.00	21,432.43	21,460.00	-1,005.00	- 4
3	Kab. Badung	9,312.00	10,115.00	10,184.00	10,178.16	9,147.00	-165.00	- 2
4	Kab. Gianyar	14,722.00	14,785.00	14,547.00	14,539.70	14,123.00	-599.00	- 4
5	Kab. Klungkung	3,876.00	3,876.00	3,771.00	4,002.80	3,657.00	-219.00	- 6
6	Kab. Bangli	2,853.00	2,834.00	2,900.00	2,753.51	2,803.00	-50.00	- 2
7	Kab. Karangasem	6,730.00	7,091.00	6,949.00	7,114.64	7,038.00	308.00	5
8	Kab. Buleleng	11,012.00	11,008.00	10,927.00	10,930.45	10,880.00	-132.00	- 1
9	Kota Denpasar	2,693.00	2,632.00	2,597.00	2,457.58	2,506.00	-187.00	- 7
Total		79,185.00	81,425.00	80,060.00	80,466.56	78,425.00	-760.00	- 1

Source: Badan Pusat Statistik (2016)

Based on this background, the formulation of the problem in this research is how the implementation of the Tri Hita Karana philosophy in the awig-awig of Subak Anggabaya is achieved. The research

objective can be formulated to analyze the implementation of the Tri Hita Karana philosophy in the awig-awig in Subak Anggabaya. This research is expected to benefit a wide range of parties. The benefits

of this research are as follows: 1) Farmers and subak administrators, as material for thought for the sustainability of subak in the future. 2). Denpasar City Government, as material for consideration in determining policies related to the development of sustainable subak in Denpasar City.

The urgency of this research stems from the development of the tourism sector, which is increasingly leading to the conversion of agricultural land into tourism facilities, such as hotels, villas, resorts, and other related establishments. Because they lack adequate rice fields, many subaks in Bali have disappeared. If these rice fields are closed, the various benefits that can be obtained from the function of rice fields will be lost. So it is necessary to conduct research on the implementation of the Tri Hita Karana philosophy in the awig-awig in the sustainable subak of Denpasar City.

METHODS

Study Location

The research was conducted in Subak Anggabaya, Penatih Village, Denpasar City. This research was conducted over a six-month period, from March to October 2024. The reason for choosing this location is that Subak Anggabaya is one of the remaining Subaks in the Denpasar city area. In addition, this subak has active awig-awig (customary regulations) that are formally recognized and have received support from the Denpasar City Government as part of its commitment to preserving subak as a cultural heritage through the Jejak Petani program.

Research Stages

The research is divided into stages, namely: (1) collecting primary data through interviews and filling out questionnaires by respondents, (2) analysis of primary and secondary data, and (3) discussion and drawing a conclusion.

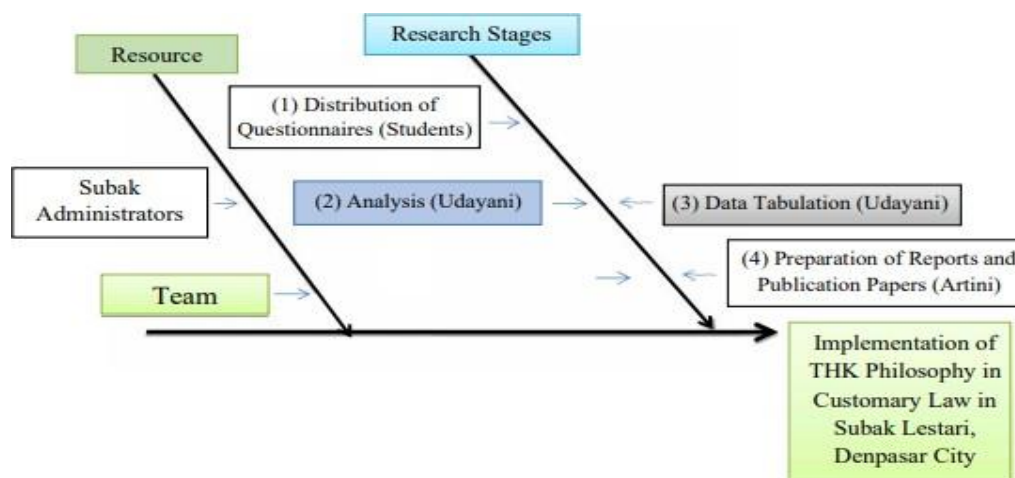


Figure 1. Activity Systematic Diagram

Systematic Activities

The systematics of this research activity are divided into 4 activities, namely (1) distribution of questionnaires, (2) analysis, (3) data tabulation, (4) preparation of the report, and publication of papers. The systematics of the activities are illustrated in [Figure 1](#).

Recorded Parameters

The main parameters recorded in this survey are as follows: 1) Characteristics of the administrators: age, education, number of

children, land area, land ownership status, 2) Awig-awig in Subak Anggabaya.

Data Collection and Processing

The types of data used in this study is qualitative data. Qualitative data is data in the form of words, sentences, and images. In this study, the qualitative data used include the farmer's identity, a description of the research location, and field observation notes. The primary and secondary data in this study come from two sources: informants and direct

respondents. Primary data in this study comes from in-depth and structured interviews with Subak Anggabaya administrators. Secondary data, on the other hand, refers to data obtained indirectly from its source. These sources include libraries, documents, field observation notes, supporting books, and relevant journals.

The data collection methods used in this study are as follows: 1) Interviews, namely a data collection method that involves direct interviews and in-depth questions and answers with farmers to obtain the necessary information and data. This is done using the right structured question and answer tool. 2) Literature study, namely a data collection method that collects data by reviewing and recording information from various literature on farming research and documents in government or private institutions.

Population and Sample

A population is a group of objects or subjects that have certain qualities and characteristics, as determined by researchers, to be analyzed in order to obtain relevant conclusions ([Iba & Wardhana, 2024](#)). Population can be grouped into two categories: homogeneous populations (consisting of similar or uniform elements and not requiring quantitative measurement) and heterogeneous populations (consisting of diverse or naturally varying elements, which require research boundaries that are set both quantitatively and qualitatively) ([Iba & Wardhana, 2024](#)).

A sample is a subset of a population that is smaller than the entire population and has been selected based on characteristics similar to those of the population ([Suryani et al., 2023](#)). Samples enable researchers to conduct statistical analysis when the population is too large to be studied, and samples also provide an approximation of the existing population. According to Sugiyono 2016 in [Suryani et al. \(2023\)](#), the population and its attributes are included in the sample. This research was conducted using purposive sampling in the Subak because it is one of the sustainable Subaks in Denpasar City. The research

population consisted of the Pekaseh Gede and three Subak administrators, totaling four key informants who participated in in-depth interviews. The reason for selecting this key informant is that he is a subak administrator who has a comprehensive understanding of the Anggabaya subak's conditions.

Data Analysis

The method used in this study is qualitative descriptive analysis, a type of qualitative research. In qualitative research, researchers place more emphasis on observing phenomena and require a sharp understanding. The analysis method used in this study is qualitative descriptive analysis. Qualitative descriptive analysis is a process of organizing, sorting, grouping, coding, categorizing, and interpreting data to obtain results that address the problems being investigated ([Saleh, 2017](#)). This process systematically and accurately explains and illustrates the phenomena or their relationships, requiring deep insight into research. The qualitative analysis method employed is thematic analysis. This method is a type of qualitative research approach that aims to identify, analyze, and report recurring patterns or themes within a set of data, typically in the form of interview transcripts.

RESULTS AND DISCUSSION

Subak Anggabaya is one of the famous subak in Bali, precisely located in Denpasar City ([Kohdrata & Sutrisna, 2011](#)). 95% of the Subak Anggabaya area still functions as rice fields, while the rest is planted with secondary crops, flower gardens, and other agricultural products. Subak Anggabaya has a government regulation that regulates PPHT, so farmers also follow the regulation. Most of the land in this subak is owned by other people. Subak Anggabaya is still a green belt, which means that building structures is not permitted in the area. The area of Subak Anggabaya is approximately 90 ha, with around 80 subak members. The average smallest cultivated land is 0.25 ha per person. The reduction in rice field/agricultural land area in Denpasar City from 2019 to 2024 is

approximately 38.8%, with an average annual decrease of 6.34%. The rice field area declined from approximately 2,164 hectares in 2019 to 1,341 hectares in 2024, representing a reduction of around 823 hectares.

In implementing the subak system, it is, of course, inseparable from the concept of Tri Hita Karana, as this concept determines the success of the subak system in Bali and has maintained its existence to this day. Additionally, this concept has become a hallmark of Subak, which is recognized by both local and foreign tourists. Based on the results of interviews with research respondents, it was found that the implementation of activities in Subak

Anggabaya was also based on the concept of Tri Hita Karana. In addition, the concept of Tri Hita Karana is also listed in the subak awig-awig and is obeyed by all krama to ensure the sustainability of subak. This was conveyed directly by Pekaseh Subak Anggabaya, who said that "The concept of Tri Hita Karana has been regulated in awig-awig, and farmers in Subak Anggabaya have obeyed awig awig well. If not, it will be destroyed because everything has been arranged in awig-awig".

The implementation of Tri Hita Karana in Subak Anggabaya can be seen in [Table 2](#). The Implementation of Tri Hita Karana in Subak Anggabaya.

Table 2. The Implementation of Tri Hita Karana in Subak Anggabaya

No	Aspects of THK	Implementation
1	Parhyangan (Human's Relationship with God)	Implementation of piodalan (religious ceremonies in Subak Anggabaya such as the ceremony of welcome, ngusaba (once every 6 months before harvest)
2	Pawongan (Human Relations with Fellow Humans)	Implementation of routine meetings with subak krama, ngayah at Subak Temple before piodalan, mutual cooperation in repairing irrigation canals, nandur (planting rice) together
3	Palemahan (Human Relationship with the Environment)	Maintaining the natural beauty of subak, prohibiting development in rice fields to maintain its existence, and cleaning rice fields

Source: Primary Data 2024

The implementation of three aspects in the concept of Tri Hita Karana is carried out in Subak Anggabaya, namely: 1) Parhyangan, in the Subak Anggabaya area, the application of the aspect of parhyangan or human relationship with God is still very often carried out, for example, in ceremonial activities carried out from the beginning of agricultural activities to harvest; 2). Pawongan, the application of aspects of pawongan or human relations with fellow humans is very often carried out because Subak is an organization, so that there is often interaction between fellow subak people; 3) Palemahan, the implementation of the aspect of vulnerability or the relationship between

humans and the environment is an important aspect, especially in maintaining the continuity of nature.

One of the applications of the Tri Hita Karana concept that is particularly important in implementing activities in Subak Anggabaya, especially in the aspect of pawonga, is social integration. This concept refers to the way in which individuals from diverse social, economic, ethnic, or cultural backgrounds can coexist in harmony and support one another. Social integration occurs due to shared interests; in subak, members share the same interests, namely obtaining irrigation water and cultivating abundant crops. In addition, the harmony among

residents in the local area is also a key factor in social integration, fostering community awareness and a shared sense of social and joint life, which in turn promotes harmony and togetherness. The concept of social integration is particularly important in the context of subak, as it encompasses not only the technical aspects of water management for agriculture but also fosters solidarity and social cooperation. With this concept, relationships between individuals from the subak krama will always be established, and they will work together to maintain the sustainability of the subak. Awareness of the subak culture and local identity encompasses not only the irrigation system but also an integral part of the cultural heritage and local identity of the Balinese people. Awareness of the importance of preserving traditions and cultural values encourages subak members to work together in maintaining the sustainability of the agricultural system that has been inherited from generation to generation.

In implementing the subak system, it cannot be separated from the Tri Hita Karana concept, as this concept determines the success of the subak system in Bali and has maintained its existence to this day. Additionally, this concept has become a hallmark of Subak, which is recognized by both local and foreign tourists. The implementation of the three aspects of Tri Hita Karana carried out in Subak Anggabaya, namely: 1). Parhyangan. In the Subak Anggabaya area, the application of the parhyangan aspect, or human relationship with God, is still very often carried out, for example, in ceremonial activities that span from the beginning of farming activities to harvest. Examples of activities include routine ceremonies or odalan, which are held every 6 months, penyongsongan ceremonies, and many more. 2). Pawongan, In the pawongan aspect, in addition to implementing social integration, there are also several activities that are still often carried out by the Subak Anggabaya community as social beings, for example, holding deliberations

which are carried out in the form of routine meetings to discuss problems faced by the subak community, and discussing planting times together and irrigation water distribution systems guided by the subak administrators. 3) Palemahan, In addition to these two aspects, there is a third aspect that is closely related to farming activities carried out in the subak, namely palemahan or human relationships with nature and the environment. In Subak Anggabaya itself, the application of this concept can be found in several activities of the subak community, such as repairing irrigation channels, cleaning, and maintaining the subak.

This aligns with the opinion of Pekaseh Subak Anggabaya, which states that "social integration is a gathering activity as a social subak (mutual cooperation) that has cooperation in accordance with Tri Hita Karana." Kelian Tempek in Subak Anggabaya also stated that "social integration refers to the process of mixing that unites individuals or groups in a society, especially in the subak community". According to the research respondents, the process of forming social interaction is rooted in the fact that the subak system cannot be separated from the Tri Hita Karana; therefore, the subak association (krama subak) fosters social integration. Examples such as water distribution and rituals (Pekaseh Subak Anggabaya Interview). Likewise, the statement states that every time before planting, we deliberate and look for the optimal planting climate; we also prioritize irrigation, so that all interests related to subak bring people together in unity (Kelian Tempek Interview).

In addition, in the aspect of palemahan, the efforts made by the subak management and the government to maintain the sustainability of Subak Anggabaya are the existence of Bali Provincial Regional Regulations related to the determination of perennial land to prevent land conversion in green areas. This determination is also implemented in Subak Anggabaya by prohibiting development in the subak area,

especially in green areas. The concept of Tri Hita Karana is also regulated in the Subak Anggabaya regulation, commonly referred to as awig-awig. Parerem or awig-awig is a Balinese customary law that governs the Balinese community and regulates various aspects of life in the subak. These rules not only maintain ecological and social balance, but also promote fairness in the distribution of resources and sustainable cooperation among subak members. In Subak Anggabaya, the people of Subak remain obedient and follow the rules in awig-awig to maintain the sustainability of subak. If anyone deviates from the awig-awig, sanctions will be given according to the agreement with the subak members. In addition to the concept of Tri Hita Karana written in the awig-awig, the rules of Subak Anggabaya are also contained in the awig-awig, such as the planting date, the water distribution system in each munduk, and rules related to the prohibition of development in green areas, especially buildings that have been formed of ceramic or cement except for huts, because these buildings are still in direct contact with the soil. There is no tax in subak, because the tax is paid by the local government. Evaluation of customary law (awig) policies and government incentives: How government incentives (e.g., minimum grain prices, land compensation, business credit) interact with customary law (awig) in protecting agricultural land.

A conceptual land protection model that combines customary law (adat), traditional villages, and formal regulations from the Denpasar City Government is proposed to determine the best model for an urban context, such as Anggabaya. By always obeying the rules or awig-awig of subak, the sustainability of subak can always be maintained. In addition, the recognition of subak as a local cultural heritage of the Balinese people and its designation as a UNESCO World Heritage Site (WHS) is something to be proud of. Therefore, its existence must be maintained so that subak continues to its future generations.

According to the respondents, maintaining the sustainability of Subak Anggabaya is crucial, and preserving the concept of harmonization, as outlined in Tri Hita Karana, is very important. According to an interview with Pekaseh and Kelian Tempek Subak Anggabaya, "Tri Hita Karana is not just a theoretical concept in Bali, but is an integral part of the daily life of the Balinese people. These values are instilled in education, traditional ceremonies, and daily practices, thus providing a solid foundation to maintain." According to them, if subak is not based on the concept of Tri Hita Karana, then the sustainability of subak will be threatened. For example, the occurrence of land conversion is an act of deviation from the aspect of palemahan because it will damage the natural environment. "Development has a great influence on our subak sustainability, because many have become villas. This is not the case; there have been many plots of rent as well. If given a waterway, it is used as a barrier. Now, those who have rice fields are 50% outsiders, not Balinese. Development can cause rice fields to lose 50% of their value, right? Moreover, the distance is far away".

Therefore, the implementation of the Tri Hita Karana concept serves as a basis for maintaining Subak Anggabaya as a sustainable subak in the face of social challenges, such as demographic changes and population migration, which affect the social dynamics within the subak. The rise of land conversion is also a significant challenge in the agricultural sector, as many agricultural lands have been converted into luxury buildings to support urban infrastructure development.

CONCLUSION

Based on the results obtained, it can be concluded that Subak, as one of the local cultures and heritages, must be maintained in its existence. Subak Anggabaya is one of the famous Subaks in Bali, which is located in Denpasar City. This subak is still actively functioning as a wet rice field and abian based

on the Tri Hita Karana concept, consisting of Parhyangan, Pawongan, and Palemahan. The implementation of the Tri Hita Karana concept has been applied by all krama subak throughout the entire farming process, from beginning to end. In the awig-awig, the Tri Hita Karana concept has been regulated, and the krama subak must adhere to the awig-awig for the sustainability of the subak system in Bali. Without the awig-awig, subak will not run smoothly, and there will be an increasing number of people converting land to other uses, which threatens its sustainability. All activities in subak have been regulated in the awig-awig, starting from the distribution of water to planting time. The implementation of three aspects in the concept of Tri Hita Karana is carried out in Subak Anggabaya, namely: 1). Parhyangan, in the Subak Anggabaya area, the application of the aspect of parhyangan or human relationship with God is still very often carried out, for example, in ceremonial activities carried out from the beginning of agricultural activities to harvest; 2). Pawongan, the application of aspects of pawongan or human relations with fellow humans is very often carried out because Subak is an organization, so that there is often interaction between fellow subak people; 3) Palemahan, the implementation of the aspect of vulnerability or the relationship between humans and the environment is an important aspect, especially in maintaining the continuity of nature.

The research on the implementation of the Tri Hita Karana philosophy in the awig-awig of Subak Anggabaya offers practical implications that are highly relevant to public policy and future research directions. The findings can serve as a reference for local governments, particularly the City of Denpasar, to strengthen agricultural land protection policies by integrating local values into spatial planning regulations, such as the designation of green zones and Protected Rice Fields (LSD). Furthermore, the study encourages the development of culture-based incentives for farmers and subak

administrators who consistently apply Tri Hita Karana principles, including technical assistance, agricultural subsidies, and socio-economic support. In terms of law enforcement, formally recognized awig-awig can be used as a legal basis for addressing construction violations through agencies synergy between customary law and formal regulations. From an academic perspective, this research opens opportunities to design conceptual models for subak protection that combine local wisdom, traditional village structures, and government policy. Future studies may explore comparative analyses between urban and rural subak systems, as well as interdisciplinary research that connects cultural, environmental, and economic dimensions in sustaining traditional agricultural systems. Thus, this research not only contributes to the preservation of cultural heritage but also provides a strategic foundation for formulating sustainable development policies rooted in local values.

REFERENCES

- Aryawan, I. P. S., Windia, W., & Wijayanti, P. U. (2013). Peranan Subak dalam Aktivitas Pertanian Padi Sawah (Kasus di Subak Dalem, Kecamatan Kerambitan, Kabupaten Tabanan). *E-Jurnal Agribisnis Dan Agrowisata*, 2(1), 1–11. <https://ojs.unud.ac.id/index.php/jaa/article/view/4918>
- Badan Pusat Statistik Kota Denpasar. (2016). Kota Denpasar Dalam Angka 2016. BPS Kota Denpasar. <https://denpasarkota.bps.go.id/id/publication/2016/07/15/aa7378b85f99941980e6d5a6/kota-denpasar-dalam-angka-2016.html> (Retrieved February 23, 2025)
- bps.go.id. (2018, February 6). Luas Lahan Sawah (Hektar) 2009 - 2013. Bps.Go.Id. <https://www.bps.go.id/id/statistics-table/2/MTc5IzI=/luas-lahan-sawah.html>
- Dessy Vitiara, M., Arientika Putri, A., & Triadi, D. J. (2024). Analisis Dampak

- Alih Fungsi Lahan Subak terhadap Kerawanan Bencana Banjir (Studi Kasus di Desa Jatiluwih, Kecamatan Penebel, Kabupaten Tabanan, Provinsi Bali). *IJSAES International Journal of Social Agriculture and Environmental Sustainability IJSAES*, 1(1), 20–33. <https://dx.doi.org/10.61511/safses.v1i1.2024.551>
- Geria, I. M., Sumardjo, N., Sutjahjo, S. H., Widiatmaka, N., & Kurniawan, R. (2019). Subak sebagai Benteng Konservasi Peradaban Bali. *AMERTA, Jurnal Penelitian Dan Pengembangan Arkeologi*, 37(1), 39–54. <https://doi.org/10.24832/amt.v37i1.39-54>
- Handayani, S. M., Jamhari, Waluyati, L. R., & Mulyo, J. H. (2019). Contribution of Wetland Rice Agro Tourism to Household Income at Various Categories of Tourism Villages. *AGRARIS: Journal of Agribusiness and Rural Development Research*, 5(1), 32–42. <https://doi.org/10.18196/agr.5173>
- Iba, Z., & Wardhana, A. (2024). Populasi dan Sampel (M. Pradana, Ed.). Eureka Media Aksara. <https://www.researchgate.net/publication/n/382060682>
- Joni, E., & Hadiwono, A. (2023). Mitos Bhatari Sri dan Budaya Subak Bali dalam Wujud Arsitektur. *Jurnal STUPA; Sains, Teknologi, Urban, Perancangan, Arsitektur*, 5(2), 917–926. <https://doi.org/10.24912/stupa.v5i2.24243>
- Juniasa, I. D. N., Umbas, R., Sugiantiningsih, A. A. P., Merta, I. N., Yunita, I. M., & Mertaningrum, N. L. P. E. (2022). Potensi, Kendala dan Harapan Petani terhadap Subak Anggabaya sebagai Agrowisata. *Jurnal Ilmiah Dinamika Sosial*, 6(2), 207–215. <https://doi.org/10.38043/jids.v6i2.3603>
- Kohdrata, N., & Sutrisna, P. E. (2011). Konservasi Subak Anggabaya: Suatu Model Konservasi Lanskap Bali. *Jurnal Lanskap Indonesia*, 3(1), 42–46. <https://doi.org/10.29244/jli.2011.3.1.%25p>
- Lesmana, I. K. A. Y., Suamba, I. K., & Astiti, N. W. S. (2022). Dampak Alih Fungsi Lahan terhadap Eksistensi Subak Kedungu, di Desa Pererenan, Kecamatan Mengwi, Kabupaten Badung. *Jurnal Agribisnis Dan Agrowisata (Journal of Agribusiness and Agritourism)*, 11(2), 486–496. <https://doi.org/10.24843/jaa.2022.v11.i.02.p01>
- Lestari, P. F. K., Windia, W., & Astiti, N. W. S. (2015). Penerapan Tri Hita Karana untuk Keberlanjutan Sistem Subak yang Menjadi Warisan Budaya Dunia: Kasus Subak Wangaya Betan, Kecamatan Penebel, Kabupaten Tabanan. *Jurnal Manajemen Agribisnis*, 3(1), 22–33. <https://www.neliti.com/publications/26290/penerapan-tri-hita-karana-untuk-keberlanjutan-sistem-subak-yang-menjadi-warisan>
- Mahmudah, S. M., Windia, I. W., & Sudarta, W. (2016). Implementasi Enam Fungsi Subak di Perkotaan (Kasus Subak Padanggalak di Kecamatan Denpasar Timur, Kota Denpasar). *E-Jurnal Agribisnis Dan Agrowisata*, 5(4). <https://ojs.unud.ac.id/index.php/jaa/article/view/24537>
- Mulyati. (2019). Subak, Filosofi Kekeragaman dalam Masyarakat Agraris di Pulau Bali. *Jantra*, 14(1), 75–82. <https://doi.org/10.52829/jantra.v14i1.85>
- Peraturan Daerah Provinsi Bali Nomor 9 Tahun 2012 Tentang Subak, Pub. L. No. 9 (2012). <https://peraturan.bpk.go.id/Details/22286>
- Pratama, I. A., Suryantini, A., & Perwitasari, H. (2024). Sustainability of the Different Rice Cultivation Practices in Yogyakarta, Indonesia. *Caraka Tani: Journal of Sustainable Agriculture*, 39(2), 321–342.

- <https://doi.org/10.20961/carakatani.v39i2.85817>
- Purnawan, N. L. R., & Sardiana, I. K. (2018). Paket Wisata Edukasi Subak Upaya Menjaga Keberlanjutan Potensi Pertanian dan Pariwisata berbasis Budaya di Bali. *Jurnal Kawistara*, 7(3), 207–314.
<https://doi.org/10.22146/kawistara.27879>
- Randa, J. G. (2014). Diplomasi Indonesia terhadap UNESCO dalam Meresmikan Subak sebagai Warisan Budaya Dunia. *JOM FISIP*, 2(2), 1–14.
<https://jnse.ejournal.unri.ac.id/index.php/JOMFISIP/article/view/6896>
- Rusadi, N. W. P., Pitana, I. G., Sunarta, I. N., & Arida, I. N. S. (2024). Farmer Perspectives on Sustainable Urban Farming Tourism: A Case Study of Bali's Subak Lestari Program. *Jurnal Kajian Bali*, 14(1), 93–117.
<https://doi.org/10.24843/JKB.2024.v14.i01.p05>
- Saleh, S. (2017). Analisis Data Kualitatif (H. Upu, Ed.; 1st ed.). Pustaka Ramadhan, Bandung.
<https://id.z-lib.gs/book/27708451/5750ca/analisis-data-kualitatif.html>
- Satrya, I. D. G., Kaihatu, T. S., Budidharmanto, L. P., Karya, D. F., & Rusadi, N. W. P. (2023). The Role of Ecotourism in Preserving Environmental Awareness, Cultural and Natural Attractiveness for Promoting Local Communities in Bali, Indonesia. *Journal of Eastern European and Central Asian Research*, 10(7), 1063–1075.
<https://doi.org/10.15549/jeecar.v10i7.1386>
- Sriartha, I. P., & Giyarsih, S. R. (2015). Spatial Zonation Model of Local Irrigation System Sustainability (A Case of Subak System in Bali). *Indonesian Journal of Geography*, 47(2), 142–150.
<https://doi.org/10.22146/ijg.9253>
- Sukanteri, N. P., Yuniti, I. G. A. Di., Suryana, I. M., & Verawati, Y. (2021). Pusat Penelitian Kebudayaan dan Pusat Unggulan Pariwisata Universitas Udayana. *Jurnal Kajian Bali*, 11(2), 407–426.
<https://ojs.unud.ac.id/index.php/kajianbali>
- Suryani, N., Jailani, Ms., Suriani, N., Raden Mattaheer Jambi, R., & Sulthan Thaha Saifuddin Jambi, U. (2023). Konsep Populasi dan Sampling Serta Pemilihan Partisipan Ditinjau Dari Penelitian Ilmiah Pendidikan. *IHSAN: Jurnal Pendidikan Islam*, 1(2), 24–36.
<https://doi.org/10.61104/ihsan.v1i2.55>
- Suryawan, M. P. (2018). Perlindungan Lahan Pertanian Pangan Berkelanjutan dalam Mendukung Pelestarian Subak. *Bali Membangun Bali Jurnal Bappeda Litbang*, 1(2), 145–152.
<https://dx.doi.org/10.51172/jbmb.v1i2.28>
- Wasis, B. (2024). Pelestarian Sistem Pertanian Subak, Hutan, Lingkungan Hidup dan Hambatannya di Provinsi Bali. Pengayaan Materi Kuliah Di Fakultas Kehutanan Dan Lingkungan IPB University, 1–28.
<https://dx.doi.org/10.13140/RG.2.2.22094.88643>
- Windia, W., & Gede Sedana, dan. (2015). Aspek Ritual pada Sistem Irigasi Subak sebagai Warisan Budaya Dunia. *Jurnal Kajian Bali*, 05 (1), 23–56.
<https://download.garuda.kemdikbud.go.id/article.php?article=1976461&val=5809&title=Aspek%20Ritual%20pada%20Sistem%20Irigasi%20Subak%20sebagai%20Warisan%20Budaya%20Dunia>
- Wiranatha, A. S., Suryawardani, I. G. A. O., Petr, C., & Kencana, I. P. E. N. (2024). Priority of Criteria for Agritourism Development in Bali. *Jurnal Kajian Bali*, 14(1), 234–258.
<https://doi.org/10.24843/JKB.2024.v14.i01.p11>

Yusnita, V. (2019). Pengembangan Pariwisata berbasis Agrowisata melalui Penguatan Peran Kelompok Wanita Tani (Studi di Desa Sungai Langka Kecamatan Gedong Tataan Kabupaten

Pesawaran). ADMINISTRATIO: Jurnal Ilmiah Administrasi Publik Dan Pembangunan, 10(1), 9-18
<https://doi.org/10.23960/administratio.v10i1.92>