IJROMS
Dharmakirti: International Journal of Religion, Mind and Science
IJROMS 3(2): 214–229
ISSN 3030-8518

Institute for Advanced Science, Social and Sustainable Future
MORALITY BEFORE KNOWLEDGE

Social communication and dynamics of Subak culture in the preservation of Ulun Suwi Temple

Nyoman Merta[1,*], I Gusti Ngurah Sudiana[1], I Wayan Wastawa[1]
[1] *Universitas Hindu Negeri I Gusti Bagus Sugriwa, Denpasar, Bali, 80235, Indonesia.*
*Correspondence: nyomanmertha154@gmail.com

Received Date: January 8, 2026 Revised Date: April 24, 2026 Accepted Date: April 26, 2026

ABSTRACT

Background: Social communication among heterogeneous communities within the cultural dynamics of the Subak system in the Subak Tegal area of the Bumi Dalung Permai Housing Complex plays a crucial role in the preservation of Ulun Suwi Temple. This article aims to examine the urgency of social communication within the dynamics of Subak culture and its contribution to temple preservation in a socially and spatially transformed environment. **Methods:** Data were collected through in-depth interviews, document analysis, and field observations. A qualitative descriptive approach was employed for data analysis. **Findings:** The findings indicate that sustained social communication functions as a mechanism to mitigate value and identity conflicts, prevent declining ritual participation, and reduce the risk of social disintegration. Continuous interaction between Subak Tegal members and non-farmer residents of the Bumi Dalung Permai Housing Complex has facilitated a transformation in the meaning and identity of Ulun Suwi Temple, from an agrarian Subak temple into a unifying symbol of Hindu religious identity within a heterogeneous residential community. The participation of non-farmer Hindus reflects all types of social action as conceptualized by Max Weber, including goal-oriented, value-oriented, affective, and traditional actions. **Conclusion:** This study concludes that effective social communication between the farming community and the diverse residential community is key to transforming Pura Ulun Suwi from an agrarian symbol into a unifying symbol of religious identity, thereby ensuring the sustainability of cultural heritage amid the challenges of urbanization. **Novelty/Originality of this article:** This study offers a novel contribution by demonstrating that the preservation of a Subak temple in an urbanized residential setting is not solely dependent on traditional agrarian structures or customary regulations, but is significantly shaped by effective social communication that enables cross-group collaboration.

KEYWORDS: heterogeneous society; social communication; Subak; ulun suwi temple.

1. Introduction

Subak has been known to the people of Bali since the 9th century AD. The United Nations Educational, Scientific and Cultural Organization (UNESCO, 2012), in its documentation of the Cultural Landscape of Bali Province, notes that the history of Subak is also recorded in the Bebetin Inscription (896 Çaka) and the Batuan Inscription (1022 Çaka). The two inscriptions describe specialized groups of rice-field workers whose expertise included constructing water tunnels. This archaeological evidence indicates that Balinese communities were familiar with organized irrigation management by approximately the 10th century.

Cite This Article:
Nyoman, N. M., Sudiana, I. G. N., & Wastawa, I. W. (2026). Social communication and dynamics of subak culture in the preservation of Ulun Suwi Temple. *Dharmakirti: International Journal of Religion, Mind and Science*, *3*(2), 224-229. https://doi.org/10.61511/ijroms.v3i2.2026.3326

Copyright: © 2026 by the authors. This article is distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

The existence of Subak in Bali has historical and cultural significance and is formally recognized in Bali Provincial Regulation No. 9 of 2012 concerning Subak (Pemerintah Provinsi Bali, 2012). Subak and Traditional Villages in Bali are two traditional institutions that are the strongholds of Balinese culture as regulated in Law Number 15 of 2023 concerning Bali Province (Republic of Indonesia, 2023). The Subak in Bali is governed collectively by its members and led by a Kelihan Subak or Pekaseh. Rituals at Subak temples are an essential part of the Tri Hita Karana philosophy: *Parhyangan* (maintaining harmony with God), *Palemahan* (maintaining harmony with nature), and *Pawongan* (maintaining harmony among humans).

In Bali, Subak functions to preserve Balinese religious and customary values, while maintaining the unity and integrity of its members based on Balinese local wisdom of mutual sharpening and compassionate care (paras paros sarpa arnaya, sagilik-saguluk selunglung bayantaka) as stated in Bali Provincial Regulation No. 9 of 2012 concerning Subak, Article 8 letter "d". Subak organizational activities include social interaction between farmers, mutual cooperation in maintaining water channels, maintaining Subak Temples and carrying out religious rituals at Subak Temples. These universal values within the Subak system have been recognized by UNESCO as a World Cultural Heritage since June 29, 2012 through the 36th session of the UNESCO World Heritage Committee in Saint Petersburg, Russia. Efforts to preserve Subak in Bali have long been the obligation and responsibility of the Balinese people (Setiawan, 2019).

The preservation of Subak contributes to environmental sustainability through coordinated water management, soil and biodiversity conservation, resilient food production, and the maintenance of Balinese cultural landscapes. Its contribution to climate mitigation should be understood cautiously: rice-field management can influence carbon storage and greenhouse-gas emissions, while its clearest climate value lies in adaptation, ecosystem stewardship, and the continuity of locally grounded agricultural practices. Broader studies of indigenous and local knowledge likewise emphasize the relationship between community knowledge, conservation practices, and ecological resilience (Abas et al., 2022; Brondízio et al., 2021).

First, Subak and sustainable water resource management. Subak serves as a coordinated water-management system for rice-field irrigation, and its sustainability is crucial in responding to climate-related challenges such as drought and unpredictable rainfall. Coordinated water management helps ensure fair and equitable distribution when water availability becomes increasingly uncertain. The system can also support adaptation through flexible irrigation arrangements, adjustments to cropping patterns, and locally appropriate farming decisions, thereby strengthening future food security (Sriartha et al., 2023; Yastika et al., 2023). Research on Balinese water management demonstrates the historical integration of irrigation infrastructure, ritual institutions, and collective stewardship (Geria et al., 2023). In a broader conceptual sense, freshwater stewardship also requires shared ethical responsibility and participatory management (Cooke et al., 2021).

Second, Subak contributes to soil, water, and biodiversity conservation. As a socio-ecological irrigation institution, Subak links agricultural production with the management of water, cultivated land, and surrounding ecological functions. This integrated character can strengthen resilience to erosion, flooding, and other environmental pressures. Subak has therefore been discussed as a nature-based solution that combines ecosystem management, collective institutions, and local knowledge (Risna et al., 2022). In addition, the agricultural landscape provides livelihoods and can be developed as an agro-ecotourism attraction when tourism activities remain aligned with conservation and community interests (Suamba et al., 2023). The conservation function of Subak is consistent with scholarship that places community stewardship and civil-society participation at the center of environmental governance (Johnson et al., 2020; Rosilawati et al., 2020).

Third, Subak and food security and climate change resilience, Subak also plays a significant role in local food security, as this system produces rice, the staple food for the Balinese people. By maintaining Subak, communities can adapt their agricultural practices to climate change, such as by selecting crop varieties that are more resistant to extreme

weather or drought. Fourth, the preservation of Subak landscapes can support climate-change mitigation by maintaining agricultural ecosystems, vegetation, soils, and water-management functions. The strength of this contribution depends on farming practices and landscape management; therefore, it should be understood as part of the broader socio-ecological value of Subak rather than as an automatic outcome of irrigated rice cultivation (Risna et al., 2022).

Fifth, local wisdom in climate adaptation. The Subak system embodies profound local wisdom, where farmers work together to maintain a balance between nature and agricultural production. The principles of mutual cooperation and harmony with nature are profound values within this system, which can be adapted to face the challenges of climate change. Sixth, Subak and Sustainable Food Production. By managing natural resources (especially water and soil) in a coordinated manner, Subak helps ensure sustainable food production. This way, farmers can produce enough to meet local consumption needs. This system supports more diverse crop rotations, which also contributes to increased food security by reducing reliance on a single crop. Seventh, Subak and the preservation of Balinese culture. Subak is a stronghold of Balinese culture, alongside the traditional villages. Preserving Subak is synonymous with preserving Balinese culture. Without Subak, Balinese culture would disappear. Balinese ancestors preserved their ancestral land through agriculture regulated by Subak. Subak plays a crucial role in implementing the Tri Hita Karana philosophy and sustaining collective agricultural practices (Sukanteri et al., 2021; Risna et al., 2022). Such locally grounded ecological practices illustrate how cultural knowledge can support environmental responsibility and adaptation (Abas et al., 2022; Surpi, 2022).

The rapid conversion of agricultural land has had a serious impact on the existence of Subak in Bali, despite the protection established under Law No. 41 of 2009 concerning the Protection of Sustainable Food Agricultural Land (Republic of Indonesia, 2009). In Badung Regency, this protection is further regulated through Regional Regulation No. 8 of 2019 concerning the Protection of Sustainable Food Agricultural Land, as amended by Regional Regulation No. 13 of 2022 (Pemerintah Kabupaten Badung, 2019, 2022). LP2B includes agricultural land formally designated for long-term protection, including protected rice fields that should not be converted. Nevertheless, urban development and tourism-related spatial transformation continue to place pressure on Subak landscapes, indicating that regulatory implementation and enforcement remain critical (Sunarta et al., 2021; Rusadi et al., 2024; Wulandari et al., 2024).

Agricultural land conversion also affected the Subak Tegal Pasedahan Yeh Bolo, located in Kerobokan Kaja Village and Dalung Village, North Kuta District, Badung Regency. According to Subak Tegal data, the area of Subak Tegal before the conversion to housing was 209 hectares. In 1994-1995, the Subak Tegal area was converted into Bumi Dalung Permai Housing, covering an area of 151 hectares. In 2024, the area of the converted function increased to 155 hectares, and in 2025, it increased to 158 hectares. The only remaining rice fields in the Kerobokan Kaja Village area, covering 51 hectares.

Empirical facts show that the conversion of rice fields has affected Subaks in the Pasedahan Yeh Bolo area, Badung Regency. One of the Subaks in Pasedahan Yeh Bolo is Subak Tegal. Since 1994-1995, the conversion of rice fields has affected Subak Tegal, including the rice fields around the Subak Temple (Ulun Suwi) to become the Bumi Dalung Permai Housing area. Subak Tegal is located in the Kerobokan Traditional Village and Padang Luwih Traditional Village and two administrative areas, namely Kerobokan Kaja Village and Dalung Village, North Kuta District, Badung Regency. Based on a literature study of Subak Tegal documents, the area of Subak Tegal's rice fields was initially 209 hectares, of which 151 hectares have been converted and by 2024 only 58 hectares remained. By 2025, the area of Subak Tegal's rice fields was only 51.34 hectares. Along with the reduction in rice fields, the number of Subak members also decreased from 260 people to ninety-two people.

Subak has sacred places called Uluncarik Temple, Ulun Suwi Temple, and Bedugul Temple. These temples were built by Subak members in rice fields. Subak members worship

Dewi Sri, the Goddess of Prosperity and Fertility, at Ulun Suwi and Bedugul Temple (Sukanteri et al., 2021). Until now, these religious rituals are still being held by residents and Subak administrators, although the type, series and extent of the rituals are not exactly the same between one Subak and another.

According to Balinese beliefs, the Subak Temple is a place of worship for the Goddess Sri, believed to bestow prosperity. Subak in Bali is collectively managed by its members and led by a Kelihan (Head) of the Subak, or Pekaseh. The Subak system developed based on Balinese local wisdom, strongly grounded in Hindu teachings. This obliges Balinese farmers to maintain harmony with nature. Subak's uniqueness lies in its reliance on irrigation water distribution systems, as well as uniting farmers through Subak Temple rituals. Rituals at Subak Temples are a crucial part of the Tri Hita Karana philosophy: *Parhyangan* (maintaining harmony with God), *Palemahan* (maintaining harmony with nature), and *Pawongan* (maintaining harmony among humans).

Worship to glorify water (Dewi Danu, Goddess of Fertility) at the Subak or village and sub-district level is carried out at Ulun Suwi Temple while at the district level it is carried out at Masceti Temple and at the provincial level it is known as Ulun Danu Temple which has the status of Kahyangan Jagat. In Bali there are four Ulun Danu Temples namely Ulun Danu Buyan Temple and Ulun Danu Tamblingan Temple (Buleleng Regency), Ulun Danu Beratan Temple (Tabanan Regency) and Ulun Danu Batur Temple (Bangli Regency).

The Bali Provincial Government has issued Bali Provincial Regulation No. 2 of 2023 concerning the Bali Provincial Spatial Planning/*Rancangan Tata Ruang Wilayah (RTRW)* for 2023-2043 (Pemerintah Provinsi Bali, 2023). This regulation aims to encourage the integration of traditional Balinese values (local wisdom, the Tri Hita Karana philosophy, Sad Kerthi) into spatial management, so that development does not ignore Balinese cultural identity and implicitly to protect the sacred areas of the temple from the threat of agricultural land conversion. In 1994, the Central Parisada Hindu Dharma Indonesia (PHDI) also issued the Bhisama Kesucian Pura which regulates the radius of the sacred area of the temple. On the other hand, the community has an active role in maintaining and protecting the sacred area. Through awareness of the importance of sacred areas for preserving Balinese culture and spirituality, the community is involved in strengthening and protecting the sacred area (Udytama et al., 2025). The integration of sacred-space protection, cultural heritage, and land-use planning is also relevant to contemporary efforts to apply Tri Hita Karana principles in spatial governance (Wiryawan, 2024).

Ulun Suwi Subak Tegal Temple is located in the Banjar Blubuh Sari neighborhood of Kerobokan Kaja Village, North Kuta District, Badung Regency. This temple is located in the middle of the densely populated Bumi Dalung Permai housing complex. Prior to 1994, the Bumi Dalung Permai housing complex was a rice field belonging to Subak Tegal. Despite the conversion of the rice fields into housing, the Ulun Suwi Temple area has remained intact.

According to the caretaker of Ulun Suwi Temple, Jro Mangku I Nyoman Karta (interviewed on July 19, 2025), the existence of Ulun Suwi Temple as a *Parhyangan* Subak Tegal began with a land grant from the Badung Regency government measuring fifteen ares (1500 square meters) in 1980 when Pekaseh was held by Pekak Sura. The land previously belonged to Pan Sadri from Pengubengan, Kerobokan Village, North Kuta District, Badung Regency. The Badung Regency Government then conducted a land swap. Pan Sadri received replacement land in the Banjar Plasa area, Kuta Village, Kuta District, Badung Regency.

The existence of Ulun Suwi Subak Tegal Temple is getting stronger after being recognized by the Badung Regency Government with the issuance of Decree of the Badung Regency Culture Office Number 1354 of 2017 dated February 7, 2017, concerning the Approval of Ulun Suwi Subak Tegal Temple. This Decree was signed by the Head of the Badung Regency Culture Office, Drs. Ida Bagus Anom Bhasma, M.Si. This letter was issued upon the request of the caretaker of Ulun Suwi Subak Tegal Temple, dated February 2, 2017, regarding the request for approval of Ulun Suwi Temple.

The presence of Ulun Suwi Temple has become increasingly felt by Hindus in the Bumi Dalung Permai housing complex since non-farmers began participating in the temple's management alongside members of the Tegal Subak community. This commitment is

reinforced by a joint statement/agreement between the Hindu community, Lokantara Parisudha Hindu Dharma Bumi Dalung Permai, and the *Pekaseh Subak Tegal*, dated August 2, 2002, and further strengthened by a joint agreement letter dated February 1, 2007.

Efforts to preserve Ulun Suwi Temple are inseparable from effective social communication driven by shared goals within a heterogeneous community. Ineffective communication can create misunderstanding and intensify conflict, whereas inclusive interaction, dialogue, and social networks enable different community groups to coordinate activities and address shared concerns (Darmawan et al., 2021; Dasih & Indraswari, 2023). In the Balinese context, value-based dialogue can bridge differences and strengthen social harmony while retaining commitments to environmental sustainability (Hisyam et al., 2024). Intensive social communication between Subak residents and non-farmers in the Bumi Dalung Permai Housing Complex has had a significant impact on the preservation of Ulun Suwi Temple.

The synergy between Subak residents and non-farmers in the Bumi Dalung Permai Housing Complex is expected to continue, in accordance with the mutual agreement made between the Tegal Subak and non-farmers within the Lokantara Parisudha Hindu Dharma Bumi Dalung Permai to jointly manage Ulun Suwi Temple. Empirical evidence shows that although the rice fields surrounding Ulun Suwi Temple have been completely converted into densely populated residential areas, the urban non-farmers living in the Bumi Dalung Permai Housing Complex have, through their own volition and awareness, ultimately participated as contributors to Ulun Suwi Temple. This article aims to analyze the critical role of social communication within a heterogeneous community in relation to the preservation of Ulun Suwi Temple in the Bumi Dalung Permai Housing Complex, Badung.

2. Methods

This sociocultural research was conducted from April 11 to September 11, 2025. The primary data sources were informants from seven Subak member farmers, four non-farmers, and two Lokantara administrators who were selected purposively. The secondary data source was a study of Subak Tegal documents. There were two data sources, namely primary and secondary. Primary data were collected through interviews and field observations. Secondary data were collected from secondary sources such as libraries, books, and Subak Tegal documents. The data obtained were selected and reduced to ensure validity and reliability. Data were analyzed using content analysis with descriptive and interpretative techniques, while the results were presented formally and informally. The interpretive procedure followed the principles of thematic analysis, while credibility was strengthened through comparison of interviews, observations, and documentary evidence (Cernasev & Axon, 2023; Enworo, 2023).

3. Results and Discussion

3.1 The critical role of social communication of heterogeneous communities and the dynamics of Subak culture in the preservation of Ulun Suwi Temple

The critical role of social communication in a heterogeneous society and the dynamics of Subak culture in the preservation of Pura Ulun Suwi Subak Tegal can be analyzed from several main indicators, namely conflict of values and identity, decreased participation in rituals, and the threat of social disintegration due to urbanization. These indicators are clearly visible in Subak Tegal. The difference between traditional farmers (Subak residents) and non-farmers (urban residents) in Bumi Dalung Permai Housing requires intensive social communication. This social communication encourages social cohesion and integration.

3.1.1 Conflict of values and identity

This indicator arises from differing priorities. Tegal Subak farmers prioritize collective norms regarding irrigation and rituals, while non-farmers in the Bumi Dalung Permai Housing Complex focus on economic activities related to their professions. In practice, there is potential friction over the conversion of rice fields to housing, ethnic stereotypes (farmers versus urbanites), and subjective evaluations such as "traditional versus modern" views that fuel interpersonal tensions. This is evident in disruptions to irrigation water access or land boundary disputes, which threaten the cultural identity of the Subak as Balinese heritage.

Social communication strengthens collective identity. Amidst modernization, local cultural identity is vulnerable to being eroded by global values. Social communication serves to strengthen a sense of belonging to the temple and the Subak system. Communication activities such as deliberations, joint rituals, and daily interactions strengthen solidarity and collective identity as a traditional community based on spirituality and togetherness. Social communication serves as a medium for value negotiation. Social communication not only preserves tradition but also provides a space for negotiation between old and new values. In this context, communication functions to select elements of modernization that align with cultural values, so that traditions can continue to develop dynamically without losing their essence. This negotiation reflects the dynamic character of Tri Hita Karana, whose meanings are continuously interpreted in relation to changing social contexts rather than functioning as a static cultural formula (MacRae, 2016).

The preservation of traditional values amidst modernization cannot be separated from the role of effective social communication. Given the heterogeneity of the Ulun Suwi Temple community, participatory and inclusive communication can encourage: (i) the regeneration of cultural values through intergenerational knowledge transfer; (ii) social integration between communities with diverse backgrounds; (iii) cultural resilience against the penetration of modern values that are inconsistent with or contradict traditional values; and (iv) harmonization between tradition and innovation in the social and religious life of the Subak community.

Differences in perspective between Subak residents and non-farmers regarding Subak management and/or activities at Ulun Suwi Temple also have the potential to trigger conflict. Social communication between Subak residents in Tegal and non-farmers in the Bumi Dalung Permai Housing Complex through deliberation can prevent conflicts over values and identity. Without intensive social communication, the cultural identity of the Subak will erode. Communication plays a role in strengthening transparency, justice, and social cohesion. The case of some residents' rejection of the involvement of housing residents in activities at Ulun Suwi Temple was successfully resolved through communication and mediation by local leaders. Social communication is a vital instrument for maintaining social harmony, preserving traditions, coordinating activities, strengthening solidarity, and preventing conflicts over values and identity within the heterogeneous community that supports Ulun Suwi Subak Tegal Temple.

3.1.2 Decrease in ritual participation

This indicator is characterized by the threat of low participation from non-farmers in ceremonies at Ulun Suwi Temple during Buda Cemeng Klawu, or the mutual cooperation (*gotong royong*) of temple maintenance, due to a lack of understanding of the Tri Hita Karana values practiced in the Subak. Examples of low participation from non-farmers include reduced contributions of punia funds or labor, a lack of community members (*pemedek*) from residents in housing complexes, and apathy toward ritual activities at the Subak Temple. This threat of decline will sooner or later erode the function of Ulun Suwi Temple as the spiritual center of the Subak. This requires inclusive, persuasive communication. The critical role of persuasive social communication and a familial approach from Subak residents is to enhance inclusiveness, ensuring the contribution of punia funds and the participation of non-farmers in temple maintenance and ceremonies at Ulun Suwi Temple.

The existence of Ulun Suwi Temple as a center of ritual and social activity requires effective communication to coordinate the schedule of mutual cooperation, ceremonies, and activities related to Subak rituals. Social communication helps establish common understanding, divide tasks, and ensure the smooth running of ceremonies. Coordination and communication can increase participation and social solidarity, particularly between Subak residents and non-farmers in the Bumi Dalung Permai Housing Complex.

Social communication and strengthening socio-religious integration. Ulun Suwi Temple, as a spiritual center, also serves as an arena for strengthening social integration. Social communication that occurs during religious ceremonies and activities strengthens the sense of spiritual togetherness among the members of the temple and the members of the community. Activities such as ngayah at the temple, or mapintonan, are not only forms of ritual participation, but also symbolic communication that strengthens social solidarity and maintains socio-religious stability. In the context of heterogeneity and social change, social communication plays a strategic role in: (a) fostering social solidarity, both through formal and informal interactions between members; (b) maintaining social stability by building open communication based on deliberation and local wisdom; (c) increasing socio-religious participation, which strengthens the sense of collective responsibility for the sustainability of the Subak system; (d) anticipating social conflict by providing a communication space as a means of mediation and collective problem-solving. Thus, social communication becomes the foundation for social cohesion that supports the cultural and spiritual resilience of the Subak community.

3.1.3 Threat of social disintegration

These indicators include the loss of social solidarity based on mutual cooperation (*gotong royong*), increasing group isolation (farmers versus non-farmers), and a crisis of norms, such as pollution from non-farmer activities in the Bumi Dalung Permai Housing Complex, which tends to disrupt the Subak irrigation system. Other indicators include declining trust among residents, latent conflicts over Bumi Dalung Permai expansion land, and a shift in values toward individualism that weakens organic bonds, as proposed by Durkheim. Without intensive social dialogue and communication, these threats have the potential to lead to permanent divisions and social disintegration.

Social interaction and communication through ritual activities, mutual cooperation (*gotong royong*), and informal dialogue strengthen a sense of belonging and togetherness. Social communication can build social trust, prevent disintegration, and maintain stability in heterogeneous societies. The value of Tat Twam Asi serves as an ethical foundation for strengthening empathy and social integration.

Social communication is necessary to build tolerance, prevent misunderstandings, and strengthen solidarity between Hindu Subak members and non-farmers. Deliberation (*paruman*) and joint activities such as ngayah and *gotong royong* are important means of building social cohesion and realizing the values of Tri Hita Karana. The critical role of social communication is measured by the success of both parties (Subak residents and non-farmer residents) in building social cohesion and a sense of interdependence to prevent social disintegration.

Social communication promotes social stability. Modernization often leads to a shift in values from collectivity to individuality, which can threaten social stability. In such situations, social communication becomes a means of maintaining a balance between tradition and change. Through structured communication—both formal and informal—traditional norms and values can be continuously socialized and used as shared guidelines. Social communication also serves as a tool for social conflict resolution, where differences of opinion are resolved through deliberation and consensus within the Subak community. This deliberation and consensus can prevent tensions from escalating into social disintegration, which can disrupt stability.



Fig. 1. Women from Subak Tegal and non-farming women from ngayah prepare banten for piodalan facilities

3.2 Social communication changes public views of Ulun Suwi Temple

Ulun Suwi Temple, Subak Tegal, is a temple closely linked to the agricultural system and the Subak. Initially, this temple served as a spiritual center and agricultural ritual for Subak farmers who relied on rice paddies for their livelihood. However, over time, particularly following the opening of the Bumi Dalung Permai Housing complex in the area, significant changes occurred in the social structure and community perceptions of Ulun Suwi Temple. Since the rice paddies in Subak Tegal were converted into residential areas, the original identity of Ulun Suwi Temple, which linked the relationship between water, agriculture, and community, has evolved into a temple that unites Hindus across all professions.

Demographically, before the conversion of rice paddies into residential areas, the majority of local residents were farmers and members of Subak Tegal, who were spiritually and socially connected to the temple. However, after the Subak Tegal area changed its function to become the Bumi Dalung Permai Housing area from 1994 until now, the non-farmer residents in the Bumi Dalung Permai Housing are not part of the Subak Tegal residents and have no direct ties to the Subak system or the religious function of the Ulun Suwi Temple.

Based on the researchers' observations, there has been a change (addition) in the function and role of Ulun Suwi Temple. In addition to its agricultural rituals, Ulun Suwi Temple now also serves as a place of prayer during Hindu religious ceremonies, particularly during major Hindu holidays such as Galungan, Kuningan, Pagerwesi, Purnama, and Tilem, not just during the piodalan ceremony of Buda Cemeng Klawu. Currently, Ulun Suwi Temple is not only a sacred place for Subak residents, but also serves as a shared sacred place (*parhyangan*) for the non-farming Hindu community in the Bumi Dalung Permai Housing Complex. The function of Ulun Suwi Temple has evolved from a spiritual facility and irrigation ritual to a symbol of shared identity, social cohesion, and respect for inherited local cultural values. Thus, the role of Ulun Suwi has transformed from an agricultural one to a symbol of community/environmental togetherness.

The interaction between Subak residents, who are local (wed) and non-farming (urban) residents in the Bumi Dalung Permai Housing Complex also serves as a forum for re-socializing traditional values. Through continuous social interaction and communication, over the years since 1994, norms such as Tri Hita Karana (maintaining harmonious relations between humans and God, humans and other humans and humans and nature) and mutual cooperation have been re-strengthened in a modern context.

Changes in the social and physical construction of the Bumi Dalung Permai Housing Complex required a transformation of the identity of Pura Ulun Suwi, from a mere Subak Temple to a symbol of neighborhood identity, combining the traditional values of Subak and the new housing culture. This occurred through social communication, collective agreement, and the acceptance of local values as part of modern community development.

Ulun Suwi Temple, Subak Tegal, currently serves as a social facility, serving as a medium for cultural and ritual education for the younger generation in the Bumi Dalung Permai Housing Complex, as well as a reminder of the importance of nature conservation, even though the area of rice fields has decreased. Nevertheless, members of Subak Tegal, as the caretakers of Ulun Suwi Temple, have undertaken preservation efforts to maintain the original identity of Ulun Suwi Temple. There have been initiatives from traditional village leaders/officials to reintroduce the temple's historical and spiritual functions, especially to the younger generation and immigrant residents who are generally non-farmers. This is considered important because the identity of Ulun Suwi Temple has undergone a shift in meaning and function in the community's view from an agrarian spiritual center to a cultural symbol facing existential challenges amidst social change and urbanization. Table 1 details the core changes in the community's views on the identity of Ulun Suwi Temple.

Table 1. The core of changes in residents' views of the identity of Ulun Suwi Temple

Aspects	Before land conversion	After land conversion
Meaning of the Temple	Agrarian rituals *(Mapag Toya, Nangluk Merana, etc.)*	Symbol of social and spiritual togetherness
Subject	Krama Subak (farmers)	Residents of the housing complex + the community of the Subak
Function	Subak ceremonies, irrigation, spirituality	Collective ceremonies, cultural education, and preservation of local wisdom
Identity	Agrarianism and ecology	Social environment + local culture

Despite changing views on the temple's identity, Subak members, with support from non-farmers in the Bumi Dalung Permai Housing Complex, carried out efforts to preserve Ulun Suwi Temple. Social communication patterns between Subak members and residents of the housing complex are central to maintaining the sustainability of the temple. Discussions and deliberations among neighborhoods or banjar ultimately produced an agreement to jointly maintain Ulun Suwi Temple, bridging the differences between Subak traditions and modern residential culture. This adaptive collaboration is consistent with evidence that urban Subak sustainability depends on farmer participation, social networks, and the integration of cultural values into changing urban functions (Darmawan et al., 2021; Rusadi et al., 2024).

Analyzed using Max Weber's theory of social action, the shift in the community's perspective on the identity of Ulun Suwi Temple shifted from affective and traditional actions to goal-oriented actions. This occurred in the community, both among the Subak members (temple caretakers) and non-farmers (temple caretakers). Meanwhile, value-oriented actions were relatively similar for both the farmer members of the Subak as temple caretakers and for the non-farmers in Bumi Dalung Permai Housing Complex who participated as temple caretakers.

3.3 Social action: Non-farmers participate in managing Ulun Suwi Temple

3.3.1 Traditional practices

The Subak Tegal farming community preserves the Ulun Suwi Temple as cultural heritage passed down from their ancestors. This practice demonstrates a form of traditional social practice. For example, performing the piodalan ceremony, passed down through generations, without questioning its rationality. This traditional practice implies that the Ulun Suwi Temple is maintained as a cultural and spiritual symbol inherent in the daily lives of Subak residents. Among Balinese people, there is a saying, "*nak mula keto dapet*," meaning that it has been so deeply ingrained that Subak Tegal residents no longer examine, let alone rationally question, what they have inherited.

3.3.2 Affective practices

Some residents acted out of emotion, such as love, pride, or even concern over the loss of cultural and traditional values inherent in the Subak Temple. Residents of the Bumi Dalung Permai Housing Complex were moved or concerned when they saw that the Ulun Suwi Temple had been pushed aside by housing and neglected, and then arose the intention to participate in its maintenance. The implication of this affective action is that this collective emotion strengthened their sense of ownership of the Ulun Suwi Temple. Thus began the journey, explaining why the non-farmers of the Bumi Dalung Permai Housing Complex's intention to participate in the maintenance of the Ulun Suwi Temple was so positively received by the residents of Subak Tegal.

This was partly because the support of the non-farmers in the Bumi Dalung Permai Housing Complex in maintaining and developing the temple was felt to significantly ease the burden on the Subak Tegal community. Expressions of gratitude for the participation of non-farmer residents in the Bumi Dalung Permai Housing Complex in caring for and saving the Ulun Suwi Temple which had been neglected were conveyed by Prajuru Subak Tegal, namely Pekaseh I Made Sumadi (fifty-six years old), a member and one of the Pangliman Subak Tegal, I Nyoman Antara (fifty-one years old) and I Wayan Ardita (60 years old).

3.3.3 Value-oriented rational practices

The non-farming community in the Bumi Dalung Permai Housing Complex participates in preserving the Ulun Suwi Temple because they believe in religious, spiritual, and social solidarity values. For example, residents of the housing complex participate as contributors because they respect Hindu religious values and want to participate in preserving traditions and culture. Consequently, the Ulun Suwi Temple serves as a unifying medium across social groups based on shared values, namely religious values and togetherness (social solidarity).



Fig. 2. *Pemedek*, a non-farmer resident of nunas tirtha (receiving holy water), after praying during the piodalan at Ulun Suwi Temple

3.3.4 Goal-oriented rational practices

Some conservation efforts at Ulun Suwi Temple, undertaken by non-farmers in the Bumi Dalung Permai Housing Complex, are based on social, economic, or environmental benefits. For example, residents and local figures from the Tegal Subak community support for temple revitalization, citing its potential to increase social cohesion, strengthen local identity, or support spiritual activities. This rational, goal-oriented action has implications for strengthening the temple's existence, as it is considered socially and strategically beneficial for the sustainability of the community, particularly Hindus. It also serves as a unifying center for spiritual activities, neutralizing threats from other communities.

Max Weber's Theory of Social Action helps explain that strengthening the existence of Ulun Suwi Temple in the Tegal Subak community amidst social change is not solely the result of social structures, but rather the accumulation of meaningful actions undertaken by individuals and groups with varying motivations, whether driven by tradition, spiritual values, rational goals, or emotional (affective) drives. This approach provides an understanding that the preservation of Ulun Suwi Temple is part of a social dynamic that continues to develop, but remains rooted in the meaning and social actions that live in the local community (Subak Tegal residents) who interact with modern society (non-farmer residents in Bumi Dalung Permai Housing).

The analysis of Max Weber's social action theory shows that the participation of non-farmer Hindus in the Bumi Dalung Permai Housing Complex in worship at Ulun Suwi Temple demonstrates that these non-farmer Hindus have engaged in social action encompassing all types of social action: goal-oriented social action, value-oriented social action, affective action, and traditional action. For the farmer members of the Tegal Subak, the social action they engage in is more traditional and affective. Meanwhile, for the non-farmer community, the majority tend to engage in goal-oriented and value-oriented rational action, with only a small minority engaging in traditional and affective action.

3.4 Non-farmers' contributions to maintaining Ulun Suwi Temple

Field observations and Subak Tegal documents show that the participation of non-farmer residents of the Bumi Dalung Permai Housing Complex as temple supporters has reduced the burden on the Subak Tegal community. Local community leaders have been actively involved in seeking government assistance for the renovation and construction of several shrines at Ulun Suwi Temple and in ngayah (mutual service), both for temple maintenance and ritual activities.

The involvement of non-farmers in the preservation of Ulun Suwi Temple extends beyond maintenance to the preparations leading up to the culmination of the *piodalan* (ceremony) and the communal work (*mareresik*) the day after the piodalan. Ulun Suwi Temple serves as a unifying force for Hindu members of the Tegal Subak and non-farmers in the Bumi Dalung Permai Housing Complex, forming a new social (family) bond known in Bali as penyamabrayan.



Fig. 3. Several shrines (*palinggih*) at Ulun Suwi Temple

Although non-farmers (especially residents of the hamlets in Bumi Dalung Permai Housing) are not functionally part of the Subak, through continuous communication and social interaction they eventually participate in the ceremonies and activities of Ulun Suwi Temple. Non-farmers participate in ceremonial activities (*piodalan*) such as: *nampah* (slaughtering pigs), *gotong royong nyanggra* (welcoming) ceremonies, and *ngayah* (serving with sincerity) as a form of respect for local traditions and Hindu spirituality. The involvement of non-farmers in traditional activities at Ulun Suwi Temple indicates a transformation of values from agricultural functions to broader spiritual-cultural functions. The continuous communication and social interaction between Subak Tegal residents and

non-farmers in Bumi Dalung Permai Housing resulted in the involvement of non-farmers in ceremonial activities at Ulun Suwi Temple.

4. Conclusions

The critical role of social communication and the dynamics of Subak culture in the preservation of Ulun Suwi Temple is analyzed using several indicators, namely: Conflict of Values and Identity; Declining Ritual Participation; and Threat of Social Disintegration. This critical role has broad implications for the future of Ulun Suwi Temple amidst the challenges of social change, which impacts the mindset and views of Hindus regarding Subak Temples. The ongoing social communication between the Tegal Subak residents and non-farmers in the Bumi Dalung Permai Housing Complex has driven the transformation of Ulun Suwi Temple's identity from a Subak (agrarian) temple to a temple that unites Hindus in the Bumi Dalung Permai Housing Complex. This identity transformation is marked by the addition of the number of *palinggih* (temple shrines) to meet the needs of the diverse Hindu community. The contribution of non-farmers to the preservation of Ulun Suwi Temple encompasses all types of social actions, including goal-oriented, value-oriented, affective, and traditional actions. The existence of non-farmer residents in Bumi Dalung Permai Housing has been proven to strengthen the existence of Ulun Suwi Temple through active contributions as supporters, thus forming new social ties (*penyamabrayan*).

Acknowledgement
The authors gratefully acknowledge all parties who supported this study through their contributions to data collection, manuscript development, and valuable feedback during the review process.

Author Contribution
All authors were involved in the conception and design of the study, data collection and analysis, manuscript drafting, and critical revision. All authors approved the final version of the manuscript.

Funding
This research received no external funding.

Ethical Review Board Statement
This study did not undergo formal review by an institutional ethics committee. Nevertheless, the research was conducted in accordance with established ethical principles for qualitative social research, including voluntary participation, respect for participants, confidentiality, and the protection of personal information.

Informed Consent Statement
All participants were informed about the purpose and procedures of the study before the interviews and observations were conducted. Participation was voluntary, and verbal informed consent was obtained from all participants. Participants were assured that their identities and personal information would be treated confidentially and used solely for academic purposes.

Data Availability Statement
The data underpinning the findings of this study are not publicly accessible due to the presence of confidential information derived from interviews and community documents. However, anonymized data may be provided by the corresponding author upon reasonable request, subject to the approval of the relevant participants and community authorities.

Conflicts of Interest
The authors declare no conflict of interest.

Declaration of Generative AI Use
During the preparation of this work, the authors used Grammarly to assist in improving grammar, clarity, and academic tone of the manuscript. After using this tool, the authors reviewed and edited the content as needed and took full responsibility for the content of the publication.

Open Access
©2026. The authors. This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original authors 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 article are included in the article's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the article'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. To view a copy of this license, visit: http://creativecommons.org/licenses/by/4.0/

References
Abas, A., Aziz, A., & Awang, A. (2022). A systematic review on the local wisdom of indigenous people in nature conservation. *Sustainability, 14*(6). https://doi.org/10.3390/su14063415

Brondízio, E. S., Aumeeruddy-Thomas, Y., Bates, P., Carino, J., Fernández-Llamazares, Á., Ferrari, M. F., Galvin, K., Reyes-García, V., McElwee, P., Molnár, Z., Samakov, A., & Shrestha, U. B. (2021). Locally based, regionally manifested, and globally relevant: Indigenous and local knowledge, values, and practices for nature. *Annual Review of Environment and Resources, 46*, 481–509. https://doi.org/10.1146/annurev-environ-012220-012127

Cernasev, A., & Axon, D. R. (2023). Research and scholarly methods: Thematic analysis. *Journal of the American College of Clinical Pharmacy, 6*(6), 635–642. https://doi.org/10.1002/jac5.1817

Cooke, S. J., Lynch, A. J., Piccolo, J. J., Olden, J. D., Reid, A. J., & Ormerod, S. J. (2021). Stewardship and management of freshwater ecosystems: From Leopold's land ethic to a freshwater ethic. *Aquatic Conservation: Marine and Freshwater Ecosystems, 31*(6), 1499–1511. https://doi.org/10.1002/aqc.3537

Darmawan, D. P., Arisena, G. M. K., Utami, N. W. F., & Krisnandika, A. A. K. (2021). The dynamics of the social network of urban farmers in Subak Sembung Denpasar. *AGRIS on-line Papers in Economics and Informatics, 13*(2), 51–58. https://doi.org/10.7160/aol.2021.130204

Dasih, I. G. A. R. P., & Indraswari, I. G. A. D. P. P. (2023). Pura Dalem Betawi: Harmonisasi komunikasi antarbudaya dalam ikatan menyamabraya Hindu dan Budha. *Jurnal Penelitian Agama Hindu, 7*(4), 488–501. https://doi.org/10.37329/jpah.v7i4.2535

Enworo, O. C. (2023). Application of Guba and Lincoln's parallel criteria to assess trustworthiness of qualitative research on indigenous social protection systems. *Qualitative Research Journal, 23*(6), 745–757. https://doi.org/10.1108/QRJ-08-2022-0116

Geria, I. M., Nastiti, T. S., Handini, R., Sujarwo, W., Dwijendra, N. K. A., Fauzi, M. R., & Juliawati, N. P. E. (2023). Built environment from the ancient Bali: The Balinese heritage for sustainable water management. *Heliyon, 9*(11). https://doi.org/10.1016/j.heliyon.2023.e21248

Hisyam, M. A., Damyati, A. R., Khambali, K. B. M., & Toksöz, H. (2024). Tri Hita Karana and Islamic ethics: Bridging universal values for social harmony and environmental sustainability. *Teosofi: Jurnal Tasawuf dan Pemikiran Islam, 14*(2), 167–194. https://doi.org/10.15642/teosofi.2024.14.2.167-194

Johnson, M. L., Campbell, L. K., & Svendsen, E. S. (2020). Conceptualizing, analyzing, and supporting stewardship: Examining the role of civil society in environmental governance. *Ecology and Society, 25*(4). https://doi.org/10.5751/ES-11970-250414

MacRae, G. (2016). Tri Hita Karana: Two interpretations of an idiom of Balinese adat. *The Asia Pacific Journal of Anthropology, 17*(5), 423–437. https://doi.org/10.1080/14442213.2016.1229468

Pemerintah Kabupaten Badung. (2019). *Peraturan Daerah Kabupaten Badung Nomor 8 Tahun 2019 tentang Perlindungan Lahan Pertanian Pangan Berkelanjutan*. Pemerintah Kabupaten Badung. https://peraturan.bpk.go.id/Details/146806/perda-kab-badung-no-8-tahun-2019

Pemerintah Kabupaten Badung. (2022). *Peraturan Daerah Kabupaten Badung Nomor 13 Tahun 2022 tentang Perubahan atas Peraturan Daerah Nomor 8 Tahun 2019 tentang Perlindungan Lahan Pertanian Pangan Berkelanjutan*. Pemerintah Kabupaten Badung. https://peraturan.bpk.go.id/Details/244077/perda-kab-badung-no-13-tahun-2022

Pemerintah Provinsi Bali. (2012). *Peraturan Daerah Provinsi Bali Nomor 9 Tahun 2012 tentang Subak.* Pemerintah Kabupaten Badung. https://peraturan.bpk.go.id/Details/22286

Pemerintah Provinsi Bali. (2023). *Peraturan Daerah Provinsi Bali Nomor 2 Tahun 2023 tentang Rencana Tata Ruang Wilayah Provinsi Bali Tahun 2023–2043*. Pemerintah Provinsi Bali. https://peraturan.bpk.go.id/Details/262423/perda-prov-bali-no-2-tahun-2023

Republic of Indonesia. (2009). *Law of the Republic of Indonesia Number 41 of 2009 concerning the Protection of Sustainable Food Agricultural Land*. Republic of Indonesia. https://peraturan.bpk.go.id/Details/38786/uu-no-41-tahun-2009

Republic of Indonesia. (2023). *Law of the Republic of Indonesia Number 15 of 2023 concerning Bali Province*. Republic of Indonesia. https://peraturan.bpk.go.id/Details/249375/uu-no-15-tahun-2023

Risna, R. A., Rustini, H. A., Herry, Buchori, D., & Pribadi, D. O. (2022). Subak, a nature-based solutions evidence from Indonesia. *IOP Conference Series: Earth and Environmental Science, 959*(1). https://doi.org/10.1088/1755-1315/959/1/012030

Rosilawati, Y., Mulawarman, K., Sofyan, N., & Mulyantari, E. (2020). The role of local Balinese culture amongst sustainable communities in preservation efforts of Ayung River. *International Journal of Sustainable Society, 12*(2), 143–157. https://doi.org/10.1504/IJSSOC.2020.108216

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

Setiawan, I. K. (2019). Kebertahanan Subak di Desa Kedewatan Ubud di tengah-tengah arus pariwisata global. *Pustaka: Jurnal Ilmu-Ilmu Budaya, 19*(2), 107–113. https://doi.org/10.24843/PJIIB.2019.v19.i02.p08

Sriartha, I. P., Giyarsih, S. R., & Purnamawati, I. G. A. (2023). Comparing the adaptive capacity of traditional irrigated rice field farmers in urban and rural areas to climate change in Bali, Indonesia. *Cogent Social Sciences, 9*(2). https://doi.org/10.1080/23311886.2023.2275936

Suamba, I. K., Sumiyati, Krisnandika, A. A. K., Tika, I. W., Sulastri, N. N., & Arisena, G. M. K. (2023). The Subak-based agro-tourism management model in the World Cultural Heritage area of Catur Angga Batukaru, Tabanan Regency, Bali Province, Indonesia. *African Journal of Food, Agriculture, Nutrition and Development, 23*(2), 22534–22547. https://doi.org/10.18697/ajfand.117.21970

Sukanteri, N. P., Yuniti, I. G. A. D., Suryana, I. M., & Verrawati, Y. (2021). Peran Subak dalam memanajemen perilaku petani untuk mewujudkan pertanian berkelanjutan di Bali. *Jurnal Kajian Bali, 11*(2), 407–426. https://doi.org/10.24843/JKB.2021.v11.i02.p09

Sunarta, I. N., Nugroho, S., & Adikampana, I. M. (2021). Spatial transformation of Subak in Northern Kuta tourism area, Bali: From agricultural to cultural-service. *South Asian Journal of Social Studies and Economics, 9*(1), 26–38. https://doi.org/10.9734/sajsse/2021/v9i130229

Surpi, N. K. (2022). Nyepi and the efforts to save the environment. *IOP Conference Series: Earth and Environmental Science, 1111*(1). https://doi.org/10.1088/1755-1315/1111/1/012084

Udytama, I. W. W. W., Wijaya, I. M. H., Wedga, Y. Y., & Putra, I. M. W. (2025). Strategi penguatan dan perlindungan kawasan suci berbasis desa adat pada jalur tol Mengwi–Gilimanuk. *Yusthima: Jurnal Prodi Magister Hukum FH Unmas Denpasar, 5*(1), 393–403. https://doi.org/10.36733/yusthima.v5i1.11492

UNESCO. (2012). *Cultural landscape of Bali Province: The Subak system as a manifestation of the Tri Hita Karana philosophy*. United Nations Educational, Scientific and Cultural Organization World Heritage Centre.

Wiryawan, I. W. (2024). Implementation of Balinese Tri Hita Karana concept for environmental conservation of cultural heritage of land consolidation arrangements. *International Journal of Conservation Science, 15*(1), 597–614. https://doi.org/10.36868/IJCS.2024.01.15

Wulandari, P. R., Saskara, I. A. N., Yasa, I. G. W. M., & Marhaeni, A. A. I. N. (2024). Key variables for farming business sustainability in urban Subak. *Revista de Gestão Social e Ambiental, 18*(9). https://doi.org/10.24857/rgsa.v18n9-087

Yastika, P. E., Vipriyanti, N. U., Partama, I. G. D. Y., Suparwata, I. W. E., & Sudiarta, I. K. (2023). Analisis respons petani terhadap perubahan iklim dan curah hujan di Subak Jatiluwih, Tabanan, Bali, Indonesia. *Agro Bali: Agricultural Journal, 6*(3), 783–792. https://doi.org/10.37637/ab.v6i3.1262

Biographies of Authors

Nyoman Merta, Universitas Hindu Negeri I Gusti Bagus Sugriwa, Denpasar, Bali, 80235, Indonesia.
- Email: nyomanmertha154@gmail.com
- ORCID: N/A
- Web of Science ResearcherID: N/A
- Scopus Author ID: N/A
- Homepage: N/A

I Gusti Ngurah Sudiana, Universitas Hindu Negeri I Gusti Bagus Sugriwa, Denpasar, Bali, 80235, Indonesia.
- Email: Ngurahsudiana@uhnsugriwa.ac.id
- ORCID: N/A
- Web of Science ResearcherID: N/A
- Scopus Author ID: N/A
- Homepage: https://sinta.kemdiktisaintek.go.id/authors/profile/6039698/

I Wayan Wastawa, Universitas Hindu Negeri I Gusti Bagus Sugriwa, Denpasar, Bali, 80235, Indonesia.
- Email: balivas65@gmail.com
- ORCID: N/A
- Web of Science ResearcherID: N/A
- Scopus Author ID: N/A
- Homepage: https://sinta.kemdiktisaintek.go.id/authors/profile/6037583