



The Effectiveness of Traditional Village (*Desa Adat*) Roles in Spatial Use Control at the Ceking Rice Terrace Tourism Area, Tegallalang, Gianyar

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How to cite (in APA style):

Vianthi, Ni Putu Yunita Laura., Desak Made Sukma Widiyani. (2026). The Effectiveness of Traditional Village (*Desa Adat*) Roles in Spatial Use Control at the Ceking Rice Terrace Tourism Area, Tegallalang, Gianyar. *Architectural Research Journal*. 6 (1), pp. 18-27.

DOI: <https://doi.org/10.22225/arj.6.1.2026.18-27>

Abstract—The Ceking Rice Terrace tourism area in Tegallalang, Gianyar, is an iconic Balinese agrotourism landscape where terraced rice fields, *subak* irrigation, and customary governance form an integrated ecological-cultural spatial system. The rapid growth of tourism has intensified land-use pressure through the expansion of cafés, restaurants, lodgings, and semi-permanent buildings within agricultural and green belt zones. *Desa Adat* Tegallalang holds customary authority through *awig-awig* and *pararem*, supported by Bali Provincial Regulation Number 4 of 2019. However, spatial control is complicated by overlapping authority between customary institutions and formal government licensing, as well as cross-village conflicts between *Desa Adat* Tegallalang as tourism manager and *Desa* Kedisan landowners. This study analyzes the effectiveness of the Traditional Village's role in controlling spatial use and examines how customary governance conflicts affect spatial order. Using a descriptive qualitative case study method, data were collected through field observations, in-depth interviews, and regulatory document reviews. The findings show that *Desa Adat* has implemented control through *awig-awig*, *pararem*, BPOWC, communal monitoring, and *subak* coordination. The originality of this study lies in revealing how fragmented authority and unequal benefit distribution weaken customary spatial control and accelerate land-use disorder in tourism landscapes.

Keywords: cultural landscape; spatial use control; tourism urbanization; *Tri Hita Karana*; *Ceking Rice Terrace*.

1. Introduction

Bali is internationally recognized through a tourism image that combines ritual culture, agrarian landscapes, and distinctive settlement forms. Among these landscapes, terraced rice fields are not only agricultural production spaces but also cultural landscapes in which irrigation infrastructure, land tenure, ritual cycles, village institutions, and visual scenery are integrated into a single spatial system. In architectural and planning discourse, this type of landscape can be understood as a living cultural landscape whose value is produced through the interaction between built form, ecological processes, and community governance (UNESCO, 2011; Fowler, 2003).

Ceking Rice Terrace, located in *Banjar Ceking*, Tegallalang Village, Tegallalang District, Gianyar Regency, is one of Bali's most visited terrace

landscapes. The area was established as a natural

tourist attraction through the Decree of the Regent of Gianyar Number 402 of 2008, which recognizes the terraced agricultural system on sloping land as the main tourism asset (Gianyar, 2008). The attraction of Ceking is therefore not limited to scenery; it lies in the spatial composition of contour-following rice plots, narrow pedestrian paths, viewing points, irrigation channels, roadside commercial strips, and the symbolic association of *subak* with *Tri Hita Karana* values (Geriya, 2008).

Tourism growth has gradually changed the spatial morphology of the area. The terrace landscape is increasingly framed by cafes, restaurants, stalls, parking spaces, photo spots, and semi-permanent structures that occupy strategic viewing corridors. These changes represent a form of tourism

urbanization in a rural landscape: economic functions expand along the road edge, agricultural land is converted into tourism-support facilities, and the image of the rice terrace becomes a commodity for visitor consumption (MacCannel, 1999; Ashworth and Tunbridge, 2000). From an architectural perspective, the critical issue is not only whether land conversion violates regulation, but how uncontrolled building mass, height, material, signage, waste infrastructure, and parking patterns alter the visual



integrity, territorial character, and ecological continuity of the terrace landscape.

Figure 1. Top view: aerial view of the Ceking Rice Terrace paddy field area, Tegallalang, Gianyar, Bali
Source: Vianthi, 2025

The *subak* system in the Ceking area is structurally related to the authority of the *Desa Adat* as a customary institution that regulates *palemahan*, *pawongan*, and *parahyangan* based on the philosophy of *Tri Hita Karana* (Dharmayuda, 2021). Bali Provincial Regulation Number 4 of 2019 strengthens the legal position of *Desa Adat* as a legal subject with village-scale local authority, including authority over customary territory, assets, and *palemahan* management (Pemerintah Provinsi Bali, 2019). However, this customary authority operates alongside the formal spatial planning and licensing system of the regional government, particularly the Gianyar Regency Spatial Plan Number 2 of 2023 (Pemerintah Kabupaten Gianyar, 2023). This duality creates a governance interface where customary norms, formal zoning, and market-driven tourism investment intersect.

Field conditions indicate the proliferation of semi-permanent and two-story buildings on the eastern side of the road, which is associated with a green-belt function in the spatial plan. On the western

side, commercial activities are more intense and visually fragmented, producing a roadside tourism corridor that competes with the rice terrace view as the main landscape image. The most visible spatial problems include building encroachment into agricultural edges, inconsistent architectural character, informal parking on the road body, waste and sanitation pressure, and unmanaged visitor movement across the terrace. These problems show that spatial control must be understood not only through institutional effectiveness, but also through architectural-spatial performance, particularly in relation to visual integrity, territorial character, and ecological continuity of the Ceking Rice Terrace landscape.



Figure 2. The condition of the Ceking Rice Terrace area shows the presence of tourism facility buildings amidst the terraced rice field landscape
Source: Vianthi, 2025

Desa Adat Tegallalang established the Ceking Tourism Object Management Board (*Badan Pengelola Objek Wisata Ceking/BPOWC*) through the Regulation of the *Bendesa* of *Desa Pakraman* Tegallalang Number 005/VII/DPT/2011 as an operational instrument for area management (Gianyar, 2013). Nevertheless, the effectiveness of BPOWC is affected by structural challenges, especially cross-village conflicts of interest between *Desa Pakraman* Tegallalang as the manager and the community of *Dusun Kebon*, *Desa Kedisian*, as landowners. The protest of a landowner who erected zinc sheeting on rice field land illustrates that spatial control legitimacy depends on fair benefit distribution and recognition of territorial claims, not only on written rules (Gianyar, 2013).

Previous studies have discussed customary institutions, land conversion, and spatial planning in Bali. Arimbawa examined institutional synergy in Jatiluwih, a rice terrace landscape supported by UNESCO World Heritage recognition (Arimbawa, 2016). Trirahayuni investigated the alignment between *awig-awig* and formal regulation in traditional settlements in Bangli (Trirahayuni, 2017). Bhuana et al. highlighted the threat of agricultural land conversion around Ceking (Bhuana, et al., 2022). However, these studies have not sufficiently

explained how customary territoriality, tourism urbanization, and formal licensing interact to transform the architectural-spatial character of a rural tourism landscape. This study fills that gap by analyzing *Desa Adat* control not only as legal governance, but also as a mechanism that shapes landscape morphology, visual quality, spatial identity, and visitor-territory relations.

The objectives of this study are: (1) to identify the spatial use control instruments owned and implemented by *Desa Adat* Tegallalang in the Ceking Rice Terrace area; (2) to analyze the effectiveness of these instruments using the combined framework of Soekanto and Chapin, Godschalk, and Kaiser (Soekanto, 2011; Kaiser, et al., 1995); (3) to examine the effects of customary governance conflicts on landscape transformation, visual quality, spatial identity, and territorial character; and (4) to formulate recommendations for an integrated spatial control model that protects the terrace landscape while accommodating community-based tourism livelihoods.

2. Methods

This research used a descriptive qualitative method with a single case study approach. The case study strategy was selected because the Ceking Rice Terrace area represents a specific and context-rich situation where customary institutions, formal spatial planning, tourism economy, and cultural landscape transformation overlap (Yin, 2018). The unit of analysis was the spatial control system of *Desa Adat* Tegallalang and its relationship with the architectural-spatial transformation of the Ceking Rice Terrace tourism landscape.

Data collection was conducted through four techniques. First, field observation was carried out to document land use, building typology, viewing corridors, circulation patterns, parking conditions, waste and sanitation points, informal control markers, and the relationship between tourism facilities and terraced rice fields. This observation was intended to identify not only land-use compliance, but also the architectural-spatial condition of the area, including visual obstruction, building encroachment, roadside commercial intensity, and the continuity of the terrace landscape.

Second, spatial-morphological mapping was conducted through transect walks along the main road corridor and selected terrace paths. The transect walks were used to record the relationship between the road, commercial frontage, viewing points, pedestrian movement, agricultural terraces, irrigation channels, and tourism-support facilities. The observed objects were categorized into agricultural terraces, *subak* irrigation channels, viewing points, commercial strips, parking areas, pedestrian routes, and buildings

located within or adjacent to green-belt zones. This stage produced spatial documentation that linked physical conditions with the spatial character of the Ceking Rice Terrace landscape.

Third, in-depth interviews were conducted with 58 respondents selected through purposive sampling. The respondents consisted of five BPOWC management members, eight *Bendesa* and *prajuru* of *Desa Adat* Tegallalang, fifteen landowners from *Dusun* Kebon in Desa Kedisan, and thirty building users or vendors in the Ceking area. The interviews explored customary authority, *awig-awig*, *pararem*, tourism management, retribution, benefit distribution, land rights, territorial claims, building use, compliance, and daily spatial practices. These respondent groups were selected because they represent the main actors involved in customary spatial control, tourism activity, land ownership, and the physical use of the landscape.

Fourth, document review was conducted by examining *awig-awig*, *pararem*, the Gianyar Regency Spatial Plan, regional regulations, the Regent's Decree on tourism objects, and related tourism management policies. These documents were used to compare formal zoning, customary spatial norms, and actual spatial practices observed in the field. The document review also helped identify whether customary control instruments were aligned with the formal spatial planning and licensing system.

The spatial analysis procedure was designed to strengthen the architectural relevance of the study. Field notes, photographs, and transect results were arranged into a spatial evidence matrix. Each observed condition was compared with the Gianyar Regency RTRW zoning direction and customary control norms. The analysis then identified four spatial dimensions: (1) morphological transformation of the terrace landscape; (2) visual integrity and viewing corridor disturbance; (3) territorial control between *Desa Adat*, *Desa Dinas*, *subak*, landowners, and business operators; and (4) architectural suitability of tourism facilities in relation to the agro-cultural landscape character. Through this procedure, spatial analysis was not limited to identifying violations, but also examined how tourism development affected landscape morphology, visual quality, spatial identity, and territorial character.

Interview data were transcribed and analyzed using inductive content analysis and qualitative data analysis procedures (Miles and Huberman, 1994; Elo and Kyngas, 2008). The coding process consisted of three main stages: open coding, axial grouping, and thematic abstraction. In the open coding stage, important statements from interview transcripts were identified and labeled. Examples of open codes included permit limitation, green-belt building, compensation conflict, visitor pressure, customary sanction, monitoring weakness, *subak* continuity, visual disturbance, parking pressure, and building

disorder. In the axial grouping stage, similar codes were grouped into broader analytical categories, such as customary authority, formal regulation, institutional coordination, economic pressure, spatial violation, community participation, and landscape transformation. In the thematic abstraction stage, these categories were interpreted into broader themes, including weak integration between customary and formal control, tourism-driven spatial transformation, contested territorial authority, reduced visual quality, and limited enforcement capacity.

The coded interview themes were then linked to the analytical frameworks used in this study. Categories related to regulation, enforcement, facilities, society, and legal culture were analyzed using Soekanto's five factors. Categories related to stakeholder interests, regulatory mechanisms, and land-use change were analyzed using the land-use control approach of Chapin, Godschalk, and Kaiser (1995). This linkage allowed the study to assess not only institutional effectiveness, but also the architectural-spatial consequences of weak spatial control.

Data validity was strengthened through source triangulation, document triangulation, photo-based cross-checking, and member checking with key informants. Source triangulation was conducted by comparing information from *Desa Adat*, BPOWC, *subak* representatives, landowners, business operators, and field observations. Document triangulation was carried out by comparing interview and observation findings with awig-awig, pararem, RTRW, regional regulations, and tourism policies. Photo-based cross-checking was used to verify spatial evidence such as building location, visual obstruction, parking patterns, and the relationship between tourism facilities and terraced fields. Member checking was conducted by returning key findings to selected informants to confirm the accuracy of interpretation.

To make the analytical process reproducible, the study organized the relationship between institutional data and architectural-spatial evidence into four analytical stages: spatial documentation, interview coding, regulatory comparison, and effectiveness evaluation. Spatial documentation processed field notes, photographs, and transect results to classify land use, building types, access, view corridors, and landscape disturbances. Interview coding processed transcripts from 58 respondents through open coding, axial grouping, and thematic abstraction. Regulatory comparison examined the relationship between *awig-awig*, *pararem*, RTRW, and permit mechanisms. Effectiveness evaluation integrated institutional and spatial evidence using the Soekanto and Chapin et al. frameworks. This analytical sequence produced an assessment of spatial control effectiveness and recommendations for an integrated customary-formal spatial control model.

Table 1. Research Respondents

Respondent Group	Total	Data Collection Technique	Analytical focus
BPOWC management	5	In-depth interview	Tourism management, retribution, monitoring, and institutional capacity
Bendesa and prajuru of Desa Adat Tegallalang	8	In-depth interview	Customary authority, awig-awig, pararem, and conflict management
Landowners from Dusun Kebon, Desa Kedisan	15	In-depth interview	Benefit distribution, land rights, and territorial claims
Building users / vendors in the Ceking area	30	Interview & observation	Business pressure, building use, compliance, and daily spatial practice
Awig-awig, pararem, RTRW, regional regulations, tourism policies		Document study	Formal-customary alignment, zoning, and legal substance

Sources: Vianthi, 2025.

Table 2. Analytical Procedure Linking Institutional Data and Architectural-Spatial Evidence

Stage	Data processed	Procedure	Output
Spatial documentation	Field notes, photographs, transects	Classifying land use, building type, access, view corridor, and landscape disturbance	Spatial morphology and visual integrity matrix
Interview coding	Interview transcripts from 58 respondents	Open coding, axial grouping, thematic abstraction	Themes of authority, compliance, conflict, economic pressure, and participation
Regulatory comparison	Awig-awig, pararem, RTRW, regional	Comparing customary norms with	Regulatory gap and institutional alignment analysis

Stage	Data processed	Procedure	Output
	regulations	formal zoning and permit mechanisms	
Effectiveness evaluation	Integrated institutional and spatial evidence	Applying Soekanto and Chapin et al. framework	Assessment of control effectiveness and recommendations

Sources: Vianthi, 2025.

3. Results and Discussion

The Ceking Rice Terrace landscape can be read as a layered spatial system. The first layer is the ecological-agricultural layer, consisting of contour-based rice plots, *subak* irrigation channels, vegetation, and slopes. The second layer is the customary-territorial layer, consisting of *Desa Adat* authority, *subak* coordination, land ownership, and social control through *krama*. The third layer is the tourism layer, consisting of visitor access, viewing decks, trekking paths, parking areas, ticketing points, stalls, cafes, restaurants, and photo attractions.

Architectural-Spatial Transformation of the Ceking Cultural Landscape

Spatial conflict occurs when the tourism layer expands without sufficient control over the ecological-agricultural and customary-territorial layers. The strongest transformation occurs along the road corridor. This corridor functions simultaneously as access infrastructure, commercial frontage, viewing platform, parking space, and boundary between the agricultural terrace and the built tourism strip. As a result, the road edge becomes the most contested architectural space in the area. Building additions are often driven by immediate visibility to tourists rather than by landscape carrying capacity or design compatibility. The condition shows that spatial control should include building height, massing, setback, material, signage, waste treatment, and view protection, not only land-use permission.

The visual identity of Ceking depends on the uninterrupted perception of layered rice terraces. When roadside buildings, zinc barriers, excessive signage, and informal parking dominate the foreground, the cultural landscape is visually fragmented. This supports the argument that customary governance has direct architectural implications: weak governance does not only produce legal non-compliance, but also changes the spatial

image, territorial legibility, and experiential quality of the tourism landscape.



Figure 3. Terrace morphology and landscape layers that form the main spatial identity of Ceking Rice Terrace
 Source: Vianthi, 2025.

Table 3. Architectural-Spatial Issues Identified in the Ceking Rice Terrace Area

Spatial component	Observed condition	Architectural-spatial implication
Road corridor	Commercial buildings, stalls, informal parking, and visitor concentration	Road becomes a contested tourism frontage and weakens landscape legibility
Terrace edge	Tourism facilities and photo spots expand toward agricultural land	Agricultural continuity and visual depth of the rice terraces are reduced
Green-belt zone	Semi-permanent and permanent structures appear in areas expected to remain open	Formal zoning is not fully reflected in actual spatial use
Viewing corridors	Buildings, signage, and temporary barriers interrupt the terrace panorama	Visual integrity and tourist experience are degraded
Subak infrastructure	Irrigation channels remain functional but are exposed to	Water management requires protection as both ecological and

Spatial component	Observed condition	Architectural-spatial implication
	tourism pressure	cultural infrastructure

Sources: Vianthi, 2025.

Spatial Use Control Instruments of Desa Adat Tegallalang

Desa Adat Tegallalang possesses layered spatial control instruments. The first instrument is *awig-awig* as the highest customary norm governing palemahan, including restrictions on uncontrolled land conversion and the obligation to protect communal spatial order. The second instrument is *Pararem* Number 005/VII/DPT/2011 concerning Ceking area management, which provides the basis for BPOWC establishment, area arrangement, contract mechanisms, and operational management. The third instrument is BPOWC as the implementing body responsible for retribution, parking, trader arrangement, compensation distribution, and field monitoring. The fourth instrument is communal social control through *krama desa*. The fifth instrument is coordination with *subak* to maintain irrigation continuity and terraced agriculture as the primary landscape asset.

These instruments show that customary spatial control does not operate through a single regulatory document but through a combination of norms, organizations, social sanctions, and everyday monitoring. This is consistent with spatial governance theory, which views land-use control as the result of interaction among state regulation, community institutions, private actors, and informal practices (Healey, 1997; Albrechts, 2004). However, the instruments remain vulnerable when customary decisions are not recognized in formal licensing procedures and when landowners outside the managing customary village perceive the benefit-sharing system as unfair.

Table 4. Spatial Use Control Instruments in the Ceking Rice Terrace Area

Instrument	Substance / Control Function	Spatial implication
<i>Awig-awig</i> of <i>Desa Adat</i> Tegallalang	<i>Palemahan</i> governance, prohibition of uncontrolled conversion, customary sanctions	Provides normative protection for agricultural and cultural landscape continuity
<i>Pararem</i> No. 005/VII/DPT/2011	BPOWC establishment, area arrangement,	Creates operational basis for tourism

Instrument	Substance / Control Function	Spatial implication
	contract system	landscape management
BPOWC	Retribution, trader arrangement, compensation distribution, monitoring	Controls daily tourism use but lacks formal enforcement authority
Communal social control	Informal monitoring and reporting by <i>krama desa</i>	Maintains compliance through social legitimacy
<i>Subak</i> coordination	Irrigation and terraced farming preservation	Protects the ecological infrastructure of the landscape
Gianyar RTRW No. 2 of 2023	Natural tourism area, green belt, and land-use zoning	Provides formal spatial reference but is weakly integrated with customary norms
Bali Provincial Regulation No. 4 of 2019	Recognition of <i>Desa Adat</i> local authority	Strengthens legal standing of customary palemahan management

Sources: Vianthi, 2025.

Effectiveness of Control Instrument Implementation Based on Soekanto's Factors

Based on legal substance, the *awig-awig* and *pararem* already contain values and rules that support spatial control. However, the substance is not yet translated into formal permit requirements. This creates a gap between customary prohibition and administrative licensing. Business operators may comply with district-level permit procedures while ignoring customary landscape norms, or conversely may seek customary acceptance without satisfying formal spatial planning standards.

Based on legal structure, BPOWC functions actively as a tourism management body but does not have administrative authority to stop, seal, or demolish non-compliant buildings. Enforcement remains under the regency government. This weakens the deterrent effect of customary control and causes spatial violations to remain unresolved. In terms of facilities and infrastructure, information boards, parking management, and verbal warnings exist, but systematic monitoring posts, violation archives, mapped building inventories, and digital reporting are

absent.

Based on society and legal culture, *Tri Hita Karana* and the social legitimacy of *Desa Adat* remain strong sources of compliance. However, tourism income creates a competing rationality. For landowners and business operators, rice terrace scenery becomes an economic asset that can be monetized through buildings, platforms, cafes, or access fees. Compliance therefore depends not only on cultural values but also on whether governance provides fair and transparent economic benefits.

Evaluation of the Control Scheme Using the Chapin et al. Approach

At the stage of identifying interests, four principal interest groups were identified. *Desa Pakraman* Tegallalang seeks to maintain management authority and retribution income. Landowners in *Dusun* Kebon, *Desa* Kedisan, seek fair compensation because their rice fields constitute the main scenic resource. The Gianyar Regency Government seeks conformity with formal spatial planning and licensing. Business operators seek profitability from tourism flows. The fragmentation of these interests is the root of unresolved conflict.

At the stage of evaluating regulatory mechanisms, the most important finding is the misalignment between territorial authority and landscape function. The best viewing positions and access corridor are associated with Tegallalang management, while significant portions of the rice-field landscape are connected to Kedisan land ownership. This condition demonstrates the concept of territoriality: control over space is shaped not merely by administrative boundaries but by claims, access, visibility, economic benefit, and symbolic meaning (Sack, 1986).

At the stage of managing land-use change, the main weakness is the absence of an integrated control chain from customary approval to formal building permit and post-construction monitoring. Without such a chain, tourism facilities can grow incrementally, each appearing small in isolation but collectively producing significant landscape transformation.

Table 5. Evaluation of Spatial Control Effectiveness

Evaluation dimension	Ideal condition	Actual condition at Ceking	Effectiveness level
Legal substance (Soekanto)	<i>Awig-awig, pararem</i> , and RTRW are integrated into one control system	Customary norms are not yet binding in the formal permit process	Partial

Evaluation dimension	Ideal condition	Actual condition at Ceking	Effectiveness level
Legal structure (Soekanto)	BPOWC and government share clear enforcement roles	BPOWC manages but cannot enforce administrative violations	Weak to partial
Facilities (Soekanto)	Monitoring posts, mapped inventories, complaint system, adequate parking	Monitoring is informal; parking and documentation are limited	Partial
Legal culture (Soekanto)	Community compliance is sustained by cultural values and fair benefits	<i>Tri Hita Karana</i> remains strong, but economic pressure erodes compliance	Partial
Interest identification (Chapin et al.)	All stakeholder interests are recognized proportionally	Tegallalang-Kedisan benefit distribution remains contested	Weak
Land-use change management (Chapin et al.)	Customary review, formal permit, and monitoring form one chain	Incremental building growth continues without integrated enforcement	Weak

Sources: Vianthi, 2025.

Field Conditions of Spatial Use Compliance

Field observation results identified four forms of spatial use non-compliance occurring in the Ceking Rice Terrace area. First, there are semi-permanent and two-story permanent buildings in the green belt zone on the eastern side of the area road that should be free of buildings based on the Gianyar Regency RTRW; to date, these buildings have not been enforced against by either the Public Works Office or BPOWC. The arrangement of buildings on the western side of the road is also disorderly due to the absence of firm action from the competent authority. Second, the conversion of agricultural land into cafes, restaurants, and lodgings continues, threatening the sustainability of the agro-tourism character as the area's core attraction. Third, the parking area is inadequate so the road body is used as an informal parking area, disrupting traffic flow. Fourth, waste management and sanitation from massive tourism activities have not been systematically addressed.

Community Participation and Critical Reflection on Customary Governance

Community participation in the Ceking spatial control system is uneven. The *krama* of *Desa Adat*

Tegallalang participate through *paruman* and communal monitoring, but strategic decisions remain concentrated among customary leaders and management bodies. Landowners from *Desa Kedis*an participate mainly through contracts and compensation discussions, not through equal decision-making authority. Using Arnstein's ladder of participation (Arnstein, 1969), Tegallalang *krama* participation can be placed between consultation and placation, while Kedisan landowner participation tends toward tokenism.

The study also recognizes a critical limitation in assuming that stronger *Desa Adat* authority is automatically the best solution. Customary institutions may provide cultural legitimacy, but they can also be exposed to internal politics, elite capture, exclusion of non-dominant groups, and commodification of tradition for tourism purposes. Therefore, strengthening *Desa Adat* should not be interpreted as unlimited authority. It must be accompanied by transparency, accountable benefit sharing, public access to spatial decisions, and formal checks-and-balances involving *Desa Dinas*, *subak*, landowners, and the regency government.



Figure 4. Tourist activity and commercial use that intensify pressure on the terrace landscape
 Source: Vianthi, 2025.

From the perspective of tourism commodification, Ceking Rice Terrace is at risk of being reduced from a living agrarian landscape into a scenic backdrop for consumption. When landscape value is measured mainly by tickets, photo spots, and

commercial frontage, *subak* and agriculture may become symbolic displays rather than productive socio-ecological systems. This risk should guide future spatial control: tourism facilities must support the continuity of agriculture and ritual-cultural life, not replace them as the dominant spatial logic.

Proposed Integrated Spatial Control Model

Based on the findings, this study proposes an integrated customary-formal spatial control model for Ceking Rice Terrace. The model consists of five components: (1) mandatory customary consultation before building and business permits are issued; (2) joint spatial monitoring by *Desa Adat*, *Desa Dinas*, *subak*, BPOWC, landowner representatives, and the regency government; (3) a transparent cross-village benefit-sharing mechanism; (4) architectural and landscape design guidelines for building height, setback, roof form, materials, signage, parking, sanitation, and view-corridor protection; and (5) periodic evaluation of land-use change using mapped spatial evidence.

The architectural guideline component is essential because the problem of Ceking is not only regulatory non-compliance but also landscape-quality degradation. Tourism facilities should be directed to respect terrace contours, avoid blocking primary views, use low-rise and visually recessive forms, maintain agricultural buffers, and provide wastewater systems that do not affect *subak* channels. Through this model, *Tri Hita Karana* becomes not only a cultural slogan but a spatial design principle connecting *parahyangan*, *pawongan*, and *palemahan*.

Table 6. Proposed Integrated Customary-Formal Spatial Control Model

Component	Responsible actors	Main output
Mandatory consultation before permit issuance	<i>Desa Adat</i> , BPOWC, Public Works Office, licensing agency	Customary spatial recommendation attached to formal permit application
Cross-village coordination forum	Tegallalang, Kedisan, <i>subak</i> , regency government	Conflict resolution and transparent benefit-sharing agreement
Landscape and architectural design guideline	BPOWC, architects/planners, government technical agency	Rules for height, setback, material, signage, view corridor, sanitation, and parking
Spatial monitoring system	BPOWC, <i>krama</i> , <i>subak</i> , <i>Desa Dinas</i>	Mapped inventory of buildings, violations, complaints, and corrective actions
Periodic evaluation	All stakeholders	Annual review of land-use change, landscape quality, and community benefit distribution

Sources: Vianthi, 2025.

4. Conclusion

This study concludes that *Desa Adat* Tegallalang has a relatively comprehensive set of spatial control instruments in the Ceking Rice Terrace area, consisting of *Awig-Awig*, *Pararem* Number 005/VII/DPT/2011, BPOWC, communal social control, and subak coordination. These instruments are supported by *Tri Hita Karana* values and the social legitimacy of customary governance. However, their effectiveness remains partial because customary norms are not yet formally integrated into the permit system, BPOWC lacks administrative enforcement authority, monitoring infrastructure is limited, and benefit distribution between Tegallalang and Kedisan landowners remains contested.

The theoretical contribution of this study is the integration of customary governance analysis with architectural-spatial interpretation. The study shows that governance conflict is not only an institutional issue but also a driver of landscape morphology, visual quality, territorial character, and tourism urbanization in a rural cultural landscape. In this sense, spatial use control in Ceking should be understood as a cultural landscape governance process that links legal norms, spatial planning, design control, community participation, and ecological continuity.

The study recommends the formalization of a mandatory BPOWC and *Desa Adat* consultation mechanism before permits are issued; integration of *awig-awig* and *pararem* into detailed tourism zoning regulations; establishment of a cross-village coordination forum involving Tegallalang, Kedisan, *subak*, and the regency government; and development of architectural landscape guidelines for height, setback, signage, material, parking, sanitation, and view-corridor protection. These recommendations are intended to protect the terrace landscape as a living agro-cultural system rather than as a merely commercial tourism object.

This study has limitations. It focuses on one case area and uses qualitative interpretation; therefore, the findings cannot be generalized without caution to all Balinese rice terrace destinations. Future research should develop quantitative spatial mapping using GIS or drone-based time-series analysis, visitor carrying-capacity assessment, economic benefit-distribution analysis, and comparative studies with Jatiluwih or other *subak*-based cultural landscapes.

Acknowledgement

The author extends sincere gratitude to the Bendesa and all Prajuru of *Desa Adat* Tegallalang, the BPOWC management, and subak representatives for their openness and willingness to share information throughout the course of this research. Heartfelt thanks are also due to the landowners of *Desa* Kedisan, traders, and all respondents in the Ceking Rice Terrace area who generously devoted their time and shared their insights. The author further expresses appreciation for the support of all parties who contributed to the completion of this research.

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