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Research Paper

Mapping Community-Based Tourism Potentials in Semi-Urban Villages: A Triangulated Approach

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ABSTRACT
This study analyzes the potential of Community-Based Tourism (CBT) within a semi-urban village context, addressing a gap in the tourism literature that predominantly focuses on rural areas. Using an integrative qualitative approach, the research combines participatory mapping, in-depth interviews, and Focus Group Discussions (FGDs) in Ciwaruga Village, West Bandung Regency. The study triangulates perspectives from three local pillars: government, community, and academia. Data collection involved 10 key informants, approximately 20 FGD participants, and four rounds of field observations. Findings reveal that semi-urban tourism relies on scattered "micro-attractions" (natural, cultural, and artificial) rather than a single iconic site. While community readiness is characterized as "emergent", marked by high enthusiasm but low institutional structure, the study identifies that participatory mapping acts as a social technology to bridge this gap. The research concludes that a tri-pillar collaborative governance model is essential to transform semi-urban complexity into sustainable tourism destinations.

Keywords: *Community-Based Tourism (CBT), Semi-Urban Tourism, Participatory Mapping, Collaborative Governance, Sustainable Tourism Development.*

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1. INTRODUCTION

Tourism is globally recognized as a catalyst for sustainable development and community empowerment, aligning with the United Nations Sustainable Development Goals (UNWTO, 2022). Among various development models, Community-Based Tourism (CBT) has gained prominence as a pathway to strengthen local economies, preserve cultural heritage, and ensure inclusive participation in managing local resources (Hajar, 2022; Harb et al., 2025). CBT emphasizes that communities should not only utilize tourism assets but also maintain control over them and ensure that benefits are distributed equitably (Harb et al., 2025; Telfer & Sharpley, 2008). Moreover, active involvement in tourism activities helps reinforce local institutions and build long-term community resilience (Tekalign et al., 2018).

Despite its promise, much of the CBT literature remains sectoral and descriptive, often overlooking institutional readiness and governance mechanisms that underpin sustainability (Gray et al., 2015; Moscardo, 2008). Research in Indonesia and Southeast Asia has largely focused on rural or remote villages, such as Bali, Yogyakarta, and Nglanggeran, while semi-urban contexts remain underexplored. Semi-urban villages, positioned at the interface between rural and urban landscapes, exhibit hybrid characteristics: high population density, dynamic land-use changes, and complex socio-cultural interactions. These dynamics present both opportunities and challenges: proximity to urban markets increases tourism potential, yet rapid urbanization can threaten local identity, weaken cohesion, and blur community ownership of resources.

Ciwaruga Village in West Bandung Regency exemplifies these tensions. Strategically located between Bandung and Cimahi, the village covers approximately 279,053 hectares with 16,365 residents, making it one of the most densely populated areas in Parongpong District (Kantor Desa Ciwaruga, 2025). The area contains a blend of natural attractions (such as Barong Waterfall, the Japanese Cave, and hillside landscapes), cultural assets (including ancestral pilgrimage sites, traditional rituals, and culinary heritage), and man-made features (cafés, villas, and tree houses). However, these assets remain undocumented and unmanaged systematically, leaving significant gaps between potential and practice. As revealed in field observations and three rounds of Focus Group Discussions (FGDs) involving government officials, Karang Taruna youth, women's farming groups (KWT), and small business owners, community participation exists but remains responsive rather than proactive. The absence of a formal tourism management body, such as Pokdarwis, further underscores the lack of institutional readiness and governance capacity for tourism development.

Addressing these challenges requires a collaborative framework that integrates the three local pillars of government, community, and academia. Government actors provide regulatory structures but often lack operational continuity; communities hold local wisdom yet face resource and skill constraints; and academic institutions contribute analytical and methodological expertise but are frequently detached from grassroots realities (Giampiccoli & Mtapuri, 2020; Setiawan et al., 2020). Without such integrative governance, fragmented initiatives risk producing short-term impacts and potentially intensifying socio-environmental pressures (Adikampana et al., 2019).

Against this backdrop, this study aims to identify and map tourism potential in Ciwaruga Village through a participatory, triangulated approach involving the three pillars of government, community, and academia. Unlike prior CBT studies that predominantly focus on rural contexts, this research situates CBT in a semi-urban setting and operationalizes community readiness through participatory mapping. In doing so, the study contributes to CBT scholarship by positioning semi-urban villages as critical yet overlooked spaces in sustainable tourism development, while offering practical insights into collaborative governance, institutional strengthening, and inclusive destination planning.

2. LITERATURE REVIEW

2.1. Sustainable Tourism Development (STD)

Sustainable Tourism Development (STD) refers to the management of tourism resources in ways that meet present needs without compromising the ability of future generations to meet their own (UNWTO, 2022). The

concept aligns with the triple bottom line of sustainability—economic viability, social equity, and environmental integrity (Bramwell & Lane, 2013; Elkington, 1997). In tourism, this translates into balancing economic benefits with the protection of cultural and natural heritage, and ensuring that local communities are active beneficiaries rather than passive recipients (Hall, 2019). In developing countries, STD is increasingly localized through community-based approaches that foster empowerment, inclusivity, and cultural preservation (Giampiccoli & Mtapuri, 2020). However, most studies have focused on rural or ecotourism destinations, leaving semi-urban settings underexplored. These spaces face unique sustainability challenges land-use conflicts, demographic shifts, and urban encroachment, that complicate resource management and social cohesion (McGee, 2009; Tacoli, 1998).

However, existing frameworks on Sustainable Tourism Development (STD) and CBT predominantly draw from case studies in distinct rural or protected environments. These 'rural-centric' models often overlook the unique spatial and social complexities of semi-urban (peri-urban) areas. Unlike remote rural villages, semi-urban landscapes are characterized by rapid urbanization, fragmented land use, and high population density (McGee, 1991; Allen, 2003). Consequently, the standard CBT assumption of a cohesive, homogenous community often fails in semi-urban settings where social structures are more fluid, and livelihoods are diverse. This study addresses this theoretical gap by examining how CBT principles can be adapted to the 'hybrid' nature of semi-urban villages, where tourism must coexist with industrial and residential pressures.

This study situates itself within the STD paradigm by promoting participatory governance**,** local empowerment**,** and balanced use of natural and cultural assets**.** Through participatory mapping and three-pillar collaboration among government, community, and academia, it operationalizes the principles of people, planet, and prosperity, whereas the foundation of sustainable tourism development in emerging semi-urban destinations.

2.2. Classification and Mapping of Tourism Potentials

Tourism potential mapping has long been recognized as a critical step in destination planning, especially at the village or community level. (Gunn, 2002) posits that mapping is not merely a spatial inventory exercise but a strategic communication tool that helps governments and communities build a shared understanding of local resources. Through mapping, fragmented attractions can be organized into an integrated system that supports destination development. The most widely used classification is based on (Leiper, 1990; Inskeep, 1991), who categorize attractions into natural**,** cultural**,** and man-made forms. Natural attractions include landscapes, rivers, and waterfalls; cultural attractions encompass historical sites, rituals, and culinary traditions; and man-made attractions include deliberately constructed facilities such as cafés, villas, tree houses, and recreational parks (See Table 1). This tripartite framework remains foundational for analyzing tourism potential.

Scholars increasingly emphasize participatory mapping to ensure local legitimacy and ownership. Study from Gray et al., (2015) show that community participation safeguards cultural identity, while Arida and Gray's work in Bali highlights its role in strengthening social legitimacy in tourism planning. However, most mapping research remains descriptive, lacking integration with governance or sustainability frameworks (Moscardo, 2008). In semi-urban contexts**,** classification and mapping gain renewed importance. Such areas combine rural charm with urban pressure natural landscapes abut dense housing, and cultural traditions coexist with modern consumption. While Taufik et al. (2023) argue that collaborative mapping helps evaluate tourism assets not only spatially but also in terms of accessibility, sustainability, and social value**.**

Table 1. Tourist Attraction Potential in Ciwaruga Village

Category	Examples (Ciwaruga Village)	Relevance to CBT
Natural	Barong Waterfall, rivers, hillside landscapes	Foundation for ecotourism, trekking, and sport tourism
Cultural	Ancesral graves, local rituals, traditional foods (*opak*, *kolontong*)	Preservation of local identity; religious and culinary tourism
Man-made	Japanese Cave (heritage), cafés, villas, tree houses	Local creativity and small-scale entrepreneurship

Thus, classification and mapping serve not only as inventory tools but also as instruments for raising awareness**,** strengthening community ownership, and designing tourism products aligned with the socio-spatial characteristics of semi-urban environments. The spatial distribution of these micro-attractions directly correlates with the community's organizational challenges. The mapping process revealed a 'spatial disconnect': while high-potential natural assets are clustered in the northern zone, the center of community activity and leadership is located in the southern residential area. This physical separation mirrors the 'fragmented' social readiness observed in the interviews. Consequently, the participatory mapping exercise served not merely as an inventory tool, but as a diagnostic instrument that visualized the gap between the village's 'hardware' (dispersed attractions) and its 'software' (centralized but limited governance).

2.3. Community-Based Tourism (CBT) and Community Readiness

Community-Based Tourism (CBT) emphasizes local control, participation, and equitable benefit-sharing. Telfer and Sharpley, (2008) argue that CBT requires communities to hold real authority over resource management, while Harb et al., (2025) emphasize fairness in benefit distribution and cultural protection to prevent social fragmentation. Institutional strength is central to the success of CBT. Giampiccoli and Mtapuri, (2020) highlight that without structured organizations such as *Pokdarwis* (Tourism Awareness Groups) participation risks being symbolic. Study by Widianingsih et al., (2022) show that early CBT initiatives thrive when supported by local governments and academic institutions that provide facilitation and training.

Despite its promise, CBT faces challenges: limited human resource capacity (Sya et al., in Harb et al., 2025), financial dependence (Hajar, 2022), and unequal benefits (Gray et al., 2015). Moscardo, (2008) warns that poor management may lead to cultural and environmental degradation. However, CBT remains the most feasible model for emerging destinations**,** particularly semi-urban villages like Ciwaruga, because it:

1. Rely on social capital rather than large financial investment.
2. Enables gradual, adaptive development through small-scale initiatives; and
3. Builds community readiness for social and institutional preparedness for sustainable tourism (Keyim, 2017)

In semi-urban settings, CBT functions not only as a development model but as a capacity-building process**,** helping communities learn, adapt, and evolve into sustainable destinations.

2.4. Three-Pillar Collaboration in Tourism Development

CBT effectiveness depends on multi-stakeholder collaboration. Tolkach and King, (2015) propose a stakeholder-based CBT model integrating government, community, and academia. Governments offer policy frameworks; communities contribute local wisdom and social capital; academics provide data-driven guidance and innovation (Setiawan et al., 2020). Shi and Fan, (2022) assert that aligned roles yield adaptive governance, while Inocencio, (2023) notes that collaboration enhances legitimacy and accountability. However, collaboration often encounters barriers such as conflicting interests and weak coordination (Adikampana et al., 2019). In Indonesia tourism context, research from Setiawan et al., (2020) show that academia plays a pivotal role in the early stages of tourism by facilitating mapping, training, and participatory evaluation. However, most studies examine mature rural destinations rather than semi-urban transitions. Such areas face distinct challenges not only urbanization, density, fragmented land but also opportunities from market access and educational linkages. For Ciwaruga and similar villages, three-pillar collaboration is thus foundational for establishing a sustainable tourism ecosystem.

2.5. Governance and Semi-Urban Dynamics

Semi-urban or peri-urban areas are transitional spaces where rural livelihoods intersect with urban expansion, producing overlapping administrative and land-use systems (McGee, 2009; Tacoli, 1998). These environments require adaptive spatial governance that coordinates land, infrastructure, and resources across jurisdictions (Healey, 1997).

For tourism, spatial transition creates both opportunities and tension. Ciwaruga exemplifies this duality: residential development and creative cafés coexist with declining agricultural areas. Such dynamics directly affect CBT feasibility, as contested land uses complicate ownership and long-term planning. In this context, participatory mapping serves as a soft-governance platform for communities to visualize change, negotiate land-use conflicts, and influence policy dialogue. Spatial governance, therefore, provides an institutional landscape that enables CBT to emerge and persist sustainably within semi-urban transformation.

2.6. Social Capital and Local Empowerment in CBT

The sustainability of CBT initiatives relies on social capital**,** the networks, trust, and norms that enable collective action (Putnam, 1993). Three dimensions are crucial:

- Bonding capital: strong ties within homogeneous groups.
- Bridging capital: horizontal connections between diverse actors.
- Linking capital: vertical ties connecting communities to institutions of power (Woolcock, 2001).

In Ciwaruga, Karang Taruna youth groups and Women Farmers' Groups (KWT) exemplify bonding capital that sustains grassroots participation. Collaboration among these groups and UMKM serves as a bridge, while engagement with Politeknik Negeri Bandung and the village government provides a link to capital. These networks foster trust and collective efficacy, prerequisites for community readiness. Strengthening social capital transforms CBT into a social learning and empowerment process**,** enhancing self-efficacy and resilience in managing local tourism resources.

2.7. Conceptual Framework

Synthesizing the literature, this study conceptualizes semi-urban tourism development as an integrated system connecting spatial, social, and institutional dimensions.

1. Tourism Potential Mapping and Classification identifies natural, cultural, and man-made resources through participatory engagement.
2. Community-Based Tourism and Readiness convert mapped assets into actionable initiatives, reinforced by social capital.
3. Three-Pillar Collaboration (Government–Community–Academia) establishes governance mechanisms and continuous learning, guided by adaptive spatial governance**.**

These layers interact dynamically: mapping enhances awareness → CBT builds empowerment → collaboration institutionalizes governance → feedback loops sustain adaptation. Participatory mapping thus serves as the connective mechanism linking spatial identification, social empowerment, and collaborative governance toward sustainable tourism in semi-urban contexts.

3. METHODOLOGY

3.1. Research design

This study adopts a qualitative descriptive design to explore how community-based tourism (CBT) principles can be operationalized within a semi-urban context. A qualitative approach was selected to capture social meanings, community perceptions, and the interactions among the three pillars of government, community, and academia. The descriptive orientation enables detailed documentation of phenomena as they occur in the field, providing contextual understanding rather than statistical

generalization (Creswell & Poth, 2018). The research is exploratory and applied, aiming not only to analyze existing conditions but also to generate practical recommendations for participatory tourism planning. The study integrates case-study (Yin, 2018) and participatory mapping techniques to triangulate perspectives from multiple stakeholders in Ciwaruga Village.

3.2. Study Site

The research was conducted in Ciwaruga Village, Parongpong District, West Bandung Regency, Indonesia. The village covers approximately 279 hectares and houses 16,365 residents**,** situated strategically between Bandung City and Cimahi City (Kantor Desa Ciwaruga, 2025). This spatial position makes Ciwaruga a semi-urban transition zone with hybrid characteristics, residential expansion, emerging creative businesses (cafés and villas), and remnants of agricultural and natural attractions such as the Barong Waterfall and Japanese Cave. These features make the site ideal for investigating community-based tourism within the context of sustainable development.

3.3. Data Collection Methods

Data collection occurred between April and September 2025 through three complementary techniques: field observation**,** in-depth interviews**,** and focus group discussions (FGDs)**.**

- Field Observation

Four to five rounds of field visits, including a trial trip, were conducted to document the physical, cultural, and social landscape of Ciwaruga. Observations focused on existing and potential tourism attractions, accessibility, environmental conditions, and community activities. Photographic documentation, spatial sketches, and GPS-based location tagging were used to support participatory mapping.

- In-Depth Interviews

A total of 10 key informants were interviewed using a semi-structured guide. Participants included the Head of Village and Village Secretary, two local elders/community leaders, two representatives of Karang Taruna (youth organization), two members of Women Farmers' Groups (KWT), one local entrepreneur (UMKM), and an Academic facilitator from Politeknik Negeri Bandung. Each interview lasted 45–90 minutes and explored perceptions of tourism potential, community readiness, institutional challenges, and expectations for collaboration.

- Focus Group Discussions (FGDs)

Three FGDs were held involving approximately 20 participants representing the village government, community groups, and academic partners. The sessions focused on:

1. Identification and classification of potential attractions (natural, cultural, man-made);
2. Assessment of community capacity and readiness for tourism development; and
3. Designing collaborative frameworks for participatory mapping and future training.

The discussions were audio-recorded, transcribed verbatim, and validated by participants through member checking at the end of each session.

3.4. Research Instruments

Three main instruments were employed:

1. Observation checklist conducted to document environmental and infrastructural conditions.
2. Interview protocol using semi-structured questions guiding the exploration of local perceptions, governance, and empowerment.
3. FGD facilitation guide and participatory maps used to visualize tourism assets and collaboratively define their spatial relationships.

All instruments were designed to elicit data corresponding to the three analytical dimensions: *tourism potential*, *community readiness*, and *three-pillar collaboration*.

3.5. Data Analysis

Data analysis qualitative framework involving:

1. Data reduction by organizing transcripts and field notes according to thematic categories: natural, cultural, and man-made attractions; social capital and empowerment; and collaborative governance.
2. Data display used constructing matrices, maps, and visual summaries to identify relationships among variables.
3. Conclusion drawing and verification by interpreting patterns through constant comparison between data sources.

Spatial data from participatory mapping were digitized into a geo-referenced tourism potential map**,** while textual data from interviews and FGDs were analyzed thematically using Atlas. ti to reveal recurring codes such as "community readiness," "governance barriers," and "collaboration opportunities." All transcripts were imported into Atlas. Ti for inductive thematic Coding, executed in three iterative stages:

1. Open Coding**:** 612 initial codes extracted line-by-line (e.g., *jalan sempit*, *anak-anak belajar di alam*, *belum ada Pokdarwis*).
2. Axial Coding**:** related codes grouped into 14 categories, including *Natural Attractions*, *Cultural Heritage*, *Entrepreneurial Initiatives*, *Community Readiness*, and *Governance Barriers*.
3. Selective Coding: categories synthesized into three core themes
    - Tourism Potential Mapping,
    - Community Readiness and Empowerment, and
    - Three-Pillar Collaboration for Sustainability.

To verify reliability, two coders independently analyzed 30% of the data, indicating high inter-coder agreement. Discrepancies were reconciled via consensus discussion. Spatial data from participatory maps were digitized in QGIS to create a geo-referenced tourism potential map, triangulated with textual themes (Table 2).

Table 2. Illustrative coding hierarchy from the Ciwaruga dataset

Level 1 Code	Level 2 Category	Emergent Theme	Illustrative Quote
"Curug Barong bagus tapi jalan sempit."	Accessibility issue	Tourism Potential – Natural	"Curug Barong is beautiful, but the road is narrow." (FGD 2)
"Kami ingin belajar promosi digital."	Training need	Community Readiness	"We want to learn digital marketing." (FGD 2)
"Belum ada Pokdarwis."	Institutional gap	Governance Barrier	"There is no tourism group yet." (Interview – Village Head)
"Polban bantu pemetaan."	Academic facilitation	Collaboration Mechanism	"Polban helped us with mapping." (FGD 3)
"Anak-anak senang belajar di alam."	Eco-education value	Sustainability Outcome	"Children enjoy learning in nature." (FGD 2)

Source: Authors data analysis, 2026

3.6. Triangulation and Validity

To ensure rigor, methodological triangulation was applied by cross-verifying evidence from observations**,** interviews**,** and FGDs**.** Source triangulation was also employed by comparing perspectives from government, community, and academia. Credibility was enhanced through:

- Member checking (feedback from participants on transcribed summaries),
- Peer debriefing with academic collaborators, and
- Thick description to ensure transferability of findings.

Dependability and confirmability were ensured through an audit trail of field notes, photos, and coding procedures.

4. RESULT AND DISCUSSION

The results and discussion are presented in at least three sub-chapters, including the characteristics of respondents or an overview of the research object, findings or results of analysis, and research implications. Authors should display relevant tables or illustrations (see Table 1 and Figure 1). This is useful as a baseline for how this situation is expected to be addressed to find solutions to research problems or research implication. For table illustrations, the title is written completely explaining the relationship between variables, written at the top of the table (see Table 1). While the illustrations of images, histograms, photographs or others, the titles are written at the bottom (see Figure 1).

4.1. Overview of Findings

The field data, generated from four structured observations, ten interviews, and three FGDs, were analyzed through an inductive Atlas.ti process yielding 612 open codes, later grouped into 14 axial categories and three overarching themes: (1) *Tourism Potential Mapping*, (2) *Community Readiness and Empowerment*, and (3) *Collaborative Governance and Sustainability*. The distribution of codes, 36% for tourism potential, 31% for community readiness, and 33% for governance, suggests that the community perceives tourism not as an isolated economic sector, but as a collective social project embedded in local identity, institutions, and inter-actor trust. This section expands on these themes, combining empirical richness from field narratives with analytical interpretation that situates Ciwaruga within broader debates on sustainable tourism and community-based development.

4.2. Mapping Tourism Potentials in Ciwaruga

The participatory mapping process revealed that Ciwaruga's assets are distributed across micro-attractions rather than iconic sites, a trait characteristic of semi-urban villages where fragmented land use coexists with dynamic socio-economic exchanges (McGee, 2009; Tacoli, 1998).

- Natural Attractions: Between Opportunity and Constraint
  Ciwaruga's natural landscape, particularly *Curug Barong (Barong Waterfall)*, *the Palaya hillsides, and several rivers,* constitutes its ecological backbone. FGD data highlight informal recreation already occurring in these spaces: "Families come here every weekend, even if the roads are narrow. It is peaceful and green." *(FGD 2).* These informal practices signify latent tourism behavior, confirming (Gunn, 2002) notion that attraction systems often begin as community-initiated activities before formal destination planning. However, spatial analysis and residents' testimonies reveal accessibility challenges, limited parking, and the absence of signage. These infrastructural gaps illustrate what (Coccossis, 1996) calls the *sustainability paradox*: demand growth outpaces management capacity. From a governance perspective, the absence of zoning or carrying capacity assessment indicates ecological vulnerability. However, these limitations also represent opportunities to introduce eco-education tourism and community-managed green infrastructure. Rather than large-scale investment, incremental interventions, community-led trails, waste management, and signage could enhance both visitor safety and environmental stewardship.
- Cultural Attractions: Living Heritage and Social Meaning
  Cultural assets are embedded in everyday life, notably the ancestral pilgrimage site, rituals of thanksgiving, and culinary traditions such as *opak*, *kolontong*, and *ranginan*. A local elder explained: "We have the grave of our ancestors; it is a place of prayer. However, we need a clearer explanation, so people understand the meaning, not just visit." This tension between reverence and commodification mirrors (MacCannell, 1976) critique of authenticity and the need for interpretive mediation. Similarly, small entrepreneurs envision embedding local foods in the tourist experience:

"If local snacks could be displayed along the main road, it would attract visitors and promote our identity." *(FGD 2).* These statements illustrate what Richards, (2018) terms *the everyday cultural economy* where small-scale cultural practices generate social value beyond income. Such intangible heritage provides the affective and symbolic capital necessary for community legitimacy**,** echoing (Gray et al., 2015), who argue that cultural mapping strengthens collective ownership of place-based tourism narratives.

- Man-Made and Creative Attractions: The Semi-Urban Interface
  Man-made assets such as cafés, villas, and tree houses emerged spontaneously through local entrepreneurship. Among them, *the Japanese Cave* represents a hybrid attraction combining historical value with inclusivity potential: "Children with disabilities enjoy exploring the cave; it helps their motor development." *(Parent, FGD 2).* This redefinition of heritage as *a therapeutic space positions Ciwaruga at the forefront of inclusive tourism, a perspective that extends beyond accessibility to encompass* psychosocial and educational well-being. Meanwhile, schools have begun to use Ciwaruga for field trips: "We have brought students twice already; it is cheaper and closer than other places." *(Teacher, FGD 2).* These initiatives reflect market-responsive CBT (Tekalign et al., 2018), proving that semi-urban destinations can fulfill niche demands for affordable, educational, and proximity-based tourism. The combination of ecological, cultural, and creative micro-attractions underscores that Ciwaruga's potential lies not in magnitude but in modularity, its ability to connect small-scale experiences into thematic packages.

4.3. Community Participation and Readiness

Participation in Ciwaruga is characterized by high motivation yet low managerial maturity, a form of *responsive engagement* rather than *institutionalized participation*. During FGDs, residents expressed both enthusiasm and uncertainty: "We have never heard about Pokdarwis before, but we are willing to learn." "Some said it is better through BUMDes; others said Pokdarwis is easier to coordinate." These quotes reveal an institutional vacuum typical of early CBT stages (Giampiccoli & Mtapuri, 2020). From a capacity-building standpoint, the village currently occupies what Keyim (2017) terms the *emergent readiness stage*: awareness and motivation exist, but formal structures are absent. This stage is pivotal—communities are open to learning, yet without structured facilitation, enthusiasm may dissipate or be co-opted by external interests (Scheyvens, 1999). The strong participation observed in mapping sessions (over 20 participants per FGD) signifies robust bonding social capital (Putnam, 1993), which can serve as the substrate for future institutional growth. Thus, the challenge is to translate emotional ownership into collective efficacy through training, leadership development, and exposure to model tourism villages.

However, it is important to note that not all community responses were uniformly positive. A notable fraction of participants (approximately 20%) expressed reservations regarding the tourism initiative. During the FGDs, concerns were raised about potential side effects, including traffic congestion and noise pollution, in dense residential clusters. Furthermore, given the semi-urban nature of Ciwaruga, some youth representatives preferred stable industrial employment in nearby factories to the perceived instability of tourism-based income. These dissenting voices highlight that while 'emergent readiness' is present, it is fragile and requires tangible economic proof to gain full communal support.

4.4. Collaborative Governance: Linking Government, Community, and Academia

Ciwaruga's governance ecosystem reveals incipient collaboration among three key pillars. The village government provides legitimacy but lacks strategic integration: "Tourism is not yet part of our RPJMDes; it is still at the discussion stage." *(Village Secretary).* Academia acts as facilitator rather than decision-maker: "We only assist with participatory mapping; the direction must come from residents." *(Lecturer, Polban).* Students play a critical mediating role in communication and trust-

building: "During mapping, residents were eager to show us significant places. It increased their awareness." *(Student facilitator).*

This triangulated interaction validates Tolkach & King's (2015) *stakeholder-based CBT model*, in which balanced power-sharing generates legitimacy. It also operationalizes Bramwell & Lane's (2013) concept of *sustainability as governance*, where collaboration is not a phase but a process of learning and adaptation. Empirically, the co-occurrence of codes between *readiness* and *collaboration* (r = 0.71) indicates that participation and governance are mutually constitutive**:** readiness nurtures collaboration, and collaboration, in turn, institutionalizes readiness. Such recursive dynamics illustrate the co-production principle (Healey, 1997), where planning knowledge is created collectively rather than transferred from experts to laypersons.

4.5. Barriers and Challenges: The Readiness Gap

The most cited barriers include infrastructural limitations (42 references), institutional absence (37), promotional weakness (24), and land-tenure ambiguity (10). These issues correspond to the *implementation deficit* noted by Adikampana et al. (2019) in early-stage CBT projects. However, the FGDs revealed optimism and pragmatic agency: "If we can create a tour package together, I am ready to sell my products there." *(UMKM Owner).* This demonstrates an entrepreneurial mindset anchored in tangible benefit expectations is an essential motivator for sustainability (Moscardo, 2008). However, fragmented ownership and urban development pressures risk marginalizing local voices, as Hampton, (2005) warns of *enclave tourism* when communities lack control. Hence, policy interventions should combine *soft empowerment* (training, mentorship) with *hard infrastructure* (road access, zoning) to bridge this readiness gap.

4.6. Thematic Integration and Conceptual Synthesis

The findings synthesize into an interlocking system of socio-spatial transformation:

Table. 3 Thematic Integration

Analytical Layer	Empirical Evidence	Interpretive Insight	Key Literature
Spatial Mapping	Participatory identification of Curug Barong, Gua Jepang, etc.	Mapping is both a technical and a social process that enhances place attachment.	Bramwell & Lane (2013)
Community Readiness	Enthusiasm without Pokdarwis structure	Readiness is an early form of social capital; it requires facilitation to mature.	Keyim (2017); Giampiccoli & Mtapuri (2020)
Governance Collaboration	Triangulated village–community–academia support	Collaborative governance is a learning system, not a static framework.	Ansell & Gash (2008)
Micro-Attraction Model	Edutourism, inclusive tourism	Small, modular attractions strengthen resilience and inclusivity.	Richards (2018); Moscardo (2008)

Collectively, these insights position Ciwaruga as a living laboratory for Semi-Urban CBT, a hybrid form of governance in which sustainability emerges through iterative, negotiated relationships rather than formal planning directives.

4.6. Theoretical Implications and Reflection

This study expands CBT theory in three ways:

1. Contextual Extension: By focusing on a semi-urban rather than rural village, it redefines the spatial applicability of CBT within the urban–rural continuum.
2. Conceptual Deepening: It introduces *community readiness* as a mediating construct between resource potential and institutionalization.

3. Governance Innovation: It operationalizes tri-pillar collaboration as a dynamic governance mechanism combining legitimacy (government), knowledge facilitation (academia), and ownership (community).

These contributions collectively support a "Semi-Urban CBT" governance model that aligns with Sustainable Tourism Development (STD) principles by promoting social inclusion, participatory learning, and environmental stewardship.

The Ciwaruga case shows that sustainability is not a fixed state but a process of co-evolution between people, place, and policy. Participatory mapping operated as a social technology of awareness, helping residents visualize assets, negotiate meanings, and claim ownership of their future. By converting enthusiasm into structure and micro-attractions into integrated experiences, Ciwaruga exemplifies how semi-urban communities can construct adaptive, inclusive, and knowledge-based tourism systems**.** Thus, Semi-Urban CBT emerges as both an analytical lens and a practical framework, bridging the gap between community aspiration and sustainable development in hybrid socio-spatial environments.

5. CONCLUSIONS

This study investigated how Community-Based Tourism (CBT) can emerge and evolve within a semi-urban governance environment, using Ciwaruga Village in West Bandung Regency as a representative case. Drawing on participatory mapping, ten interviews, and three FGDs, the data were analyzed using Atlas.ti coding, the research illuminated how tourism potentials, community readiness, and multi-actor collaboration intersect to form a distinctive model of Semi-Urban CBT.

Empirically, the findings reveal that Ciwaruga's tourism system is grounded in micro-attractions, small, locally meaningful sites such as *Curug Barong*, *Gua Jepang*, ancestral pilgrimage grounds, and culinary traditions, that collectively constitute a mosaic of ecological, cultural, and creative experiences. These resources differ from the iconic or large-scale attractions typical of rural destinations: their value lies in contextual diversity, inclusivity, and adaptability. The case therefore extends the classical attraction typology of Leiper (1990) and Inskeep (1991) toward a micro-modular framework suited to dense, hybrid landscapes.

Socially, Ciwaruga exemplifies a community at the emergent-readiness stage (Keyim, 2017): enthusiasm and social capital are abundant, yet institutional maturity remains limited. Residents participate actively in mapping and planning but lack the managerial literacy and organizational infrastructure, such as a *Pokdarwis*, needed to sustain coordinated initiatives. This tension between motivation and capacity reflects the "empowerment paradox" in CBT (Giampiccoli & Mtapuri, 2020), underscoring that awareness alone does not guarantee governance capability. Nevertheless, the participatory process itself functioned as a social-learning mechanism, transforming latent energy into structured cooperation.

At the governance level, the collaboration among government, community, and academia demonstrates how sustainability can be *co-produced* through iterative dialogue rather than imposed by policy decree. The village government contributes legitimacy, the community provides cultural knowledge and voluntary labor, and the academic institution mediates between scientific method and local wisdom. This tri-pillar arrangement validates the collaborative-governance models of Ansell and Gash (2008) and Bramwell and Lane (2013) situating Ciwaruga as a practical instantiation of *sustainability-as-process*. Conceptually, the study contributes to CBT and sustainable-tourism literature in three interrelated ways:

1. Spatial Reframing – extending CBT from rural to semi-urban contexts, revealing how urban proximity, land-use complexity, and demographic hybridity reshape community engagement.
2. Governance Innovation – introducing *Semi-Urban CBT* as a hybrid governance model that integrates participatory mapping, community readiness, and tri-pillar collaboration.
3. Policy Convergence – demonstrating how local CBT initiatives operationalize SDGs 8, 11, and 17, translating global sustainability agendas into place-based action.

Methodologically, the combination of participatory mapping and Atlas.ti coding illustrates that spatial visualization, and qualitative analytics can jointly enhance transparency and community empowerment. The mapping process served not only to document resources but to build collective awareness, a social technology of sustainability that links physical space to social meaning. Practically, the research identifies clear steps for Ciwaruga's next development phase: forming a *Pokdarwis* or hybrid institutional body, integrating tourism into the RPJMDes, expanding training in service quality and digital marketing, and continuing collaborative mapping as an adaptive planning tool. If pursued consistently, these strategies can transform Ciwaruga into an inclusive, learning-oriented, and resilient tourism village, serving as a model for other semi-urban communities navigating the transition between rural identity and urban influence.

Ultimately, the study concludes that sustainability in semi-urban tourism is not a fixed state but an evolving negotiation a continual balancing of enthusiasm and expertise, conservation and commercialization, local autonomy and cross-sector partnership. The Ciwaruga experience thus affirms that when community, government, and academia co-create knowledge and share responsibility, tourism becomes not only an economic opportunity but a governance practice of inclusion and shared learning, the very essence of Sustainable Tourism Development.

6. LIMITATION AND FURTHER STUDY

While this study provides a comprehensive understanding of community-based tourism (CBT) development in a semi-urban context, several limitations should be acknowledged to guide the interpretation and future extension of its findings. First, the research focused on a single case study, Ciwaruga Village, which, although rich in qualitative depth, restricts the generalizability of the conclusions. The results should therefore be understood as analytical generalizations (Yin, 2018) that illuminate theoretical mechanisms rather than universal patterns. Comparative multi-case research across different semi-urban villages would allow for testing the robustness of the *Semi-Urban CBT* model and identifying context-dependent variations.

Second, the study adopted a cross-sectional temporal frame (May–October 2025). Because community readiness and governance structures evolve gradually, longitudinal observation is needed to trace institutional learning, evaluate post-intervention impacts, and document the transition from *responsive participation* to *formalized governance*. A follow-up study in 2026–2027 could assess whether the participatory processes initiated here produce measurable social or economic resilience.

Third, while Atlas.ti-based thematic Coding enhanced analytical rigor, qualitative methods capture perceptions more effectively than performance metrics. Future research could incorporate mixed methods approaches, such as social network analysis, visitor surveys, or participatory econometrics to quantify the outcomes of collaborative governance on local welfare and environmental indicators. Fourth, researcher positionality must be recognized. The lead author's facilitative role in the FGDs may have influenced responses through *rapport bias* or *normative alignment*. Although reflexive journaling and triangulation mitigated this issue, future studies could employ external facilitators or peer debriefing to enhance objectivity and confirmability.

Finally, future inquiry should expand toward digital transformation and technological mediation in CBT. Building on Ciwaruga's collaboration with Politeknik Negeri Bandung, research could explore how AI-assisted participatory mapping, digital storytelling, or community-managed data platforms contribute to inclusive governance and tourism innovation. These explorations would strengthen the emerging paradigm of "smart CBT", integrating human-centered design with sustainable tourism policy.

In summary, while limited in scope, the Ciwaruga case provides fertile ground for longitudinal and comparative investigations that can refine the theoretical, methodological, and policy frameworks of semi-urban tourism development. Extending this work across time and geography will deepen

understanding of how community readiness, collaborative governance, and spatial innovation co-evolve to sustain tourism in the rapidly changing landscapes of the Global South.

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AUTHOR CONTRIBUTIONS

Tomy Andrianto: Conceptualization, Methodology, Formal Analysis, Supervision, Project Administration, Writing – Original Draft, Writing – Review & Editing, Corresponding Author. Tomy also led the overall research design, developed the conceptual framework, supervised the research process, and was responsible for the primary manuscript writing and revision process.

Eko Susanto: Investigation, Data Curation, Formal Analysis, Writing – Original Draft. Eko also contributed substantially to data collection, data processing, and statistical analysis, and was actively involved in drafting the early version of the manuscript.

Any Ariani Noor: Investigation, Resources, Writing – Review & Editing. Any also contributed to supporting the research process, including assisting in data collection and providing relevant resources, as well as reviewing and refining the manuscript.

Marceilla Suryana: Resources, Validation, Writing – Review & Editing. Marceilla also contributed by supporting research resources, assisting in validating the findings, and providing feedback to improve the manuscript.

Deisy Christina Andih: Resources, Validation, Writing – Review & Editing. Deisy also contributed to resource support, validation of the results, and manuscript review and editing.

CONFLICT OF INTEREST

All authors declare that there is no conflict of interest regarding the publication of this paper. All research activities were conducted in accordance with the ethical standards of Politeknik Negeri Bandung's Research and Community Service Center (P3M) and with the informed consent of all participants involved in the interviews and focus group discussions. No unethical practices, such as plagiarism, data fabrication, or unauthorized use of information, were engaged during the study. All listed authors have made significant scholarly contributions to the conception, design, analysis, and writing of this paper. Individuals who provided administrative or technical assistance are acknowledged in the Acknowledgments section.

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