

# Enhancing Community-Based Rural Tourism through Master planning, Business Models, and Branding in Curug Luhur, Ambarjaya, Sukabumi

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## ABSTRACT

**Background:** This community service program aimed to develop Curug Luhur as a sustainable rural tourism destination in Desa Ambarjaya by strengthening local capacity in participatory spatial planning, business model development, and digital destination branding. The objective was to integrate these components into a community-based tourism framework that supports environmental sustainability, economic viability, and local governance.

**Contribution:** The program empowered 20 local stakeholders, including village officials, community organizations, and the youth group Bina Muda Group, as well as 11 micro, small, and medium enterprises (MSMEs) from culinary, handicraft, and service sectors. It fostered cross-sector collaboration, enhanced community ownership, and supported MSME integration into the local tourism value chain.

**Method:** A participatory action approach was applied, combining Participatory Rural Appraisal (PRA), site surveys and spatial mapping, focus group discussions (FGDs) for master planning and architectural design, business management training using SWOT analysis and the Business Model Canvas (BMC), MSME empowerment activities, and digital branding and social media workshops.

**Results:** The program produced a community-endorsed tourism master plan, participatory architectural design proposals, strategic business models for tourism activities, and a locally grounded destination brand supported by digital promotion tools. Participant evaluation showed high overall satisfaction (average score: 4.6/5), improved entrepreneurial skills, and stronger community commitment to tourism development.

**Conclusion:** The integration of participatory master planning, business model innovation, and digital promotion effectively

strengthened the institutional, economic, and promotional foundations of Curug Luhur. This approach demonstrates a replicable model for sustainable, community-driven rural tourism development in Indonesia.

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## 1. Introduction

Tourism has become one of the fastest-growing global sectors and a strategic driver for rural economic development. Sustainable rural tourism is shown to stimulate local economies through collaboration, improved infrastructure, and diversified livelihoods, as demonstrated in [1]. It further contributes to revitalizing depopulated areas and strengthening territorial sustainability [2], while global policy analyses highlight its ability to enhance local value chains and distribute tourism benefits more equitably across seasons and regions [3]. Evidence from China demonstrates that rural tourism increases household income and reduces poverty [4], with similar findings in South Africa where it creates employment and empowers local communities [5]. In Malaysia, rural tourism expands economic opportunities for low-income B40 groups while supporting SDGs [6], and in India, homestay and community-based tourism strengthen rural livelihoods and preserve cultural heritage [7], [8]. Collectively, these studies underscore the global consensus on rural tourism as both an economic engine and a catalyst for inclusive development.

In Indonesia, nature-based tourism particularly waterfalls, rivers, and mountain landscapes play a significant role in supporting rural livelihoods. Prior studies highlight that rural water-based tourism can drive diversification and community engagement [9] and that effective community participation is crucial for sustainable management, as seen in Way Kalam Waterfall [10] and Curug Dhuwur in Pekalongan [11]. Additional cases from East Nusa Tenggara [12] and West Nusa Tenggara [13] reinforce the socio-economic significance of waterfall tourism across regions. Despite these successes, many rural attractions in Indonesia remain underdeveloped due to limited infrastructure, weak institutional capacity, and inadequate marketing strategies [14], [15]. Despite existing studies on rural tourism development in Indonesia, limited attention has been given to integrated models that combine spatial master planning, business model innovation, and digital branding within a participatory framework. This study addresses that gap by developing an integrated rural tourism model.

Curug Luhur, located in Ambarjaya Village, Ciambar District, Sukabumi, exemplifies a rural destination with strong natural potential but limited development. Despite its scenic value and proximity to the Gede Pangrango landscape, the site suffers from poor accessibility, including narrow and partially unpaved roads and a 1.5 km walking distance from the nearest drop-off point. A feasibility study of the Parungkuda-Ciambar-Cibadak corridor confirms that

inadequate connectivity constrains tourism growth in the area [16]. Tourism services remain basic, with limited parking, inadequate sanitation, and the absence of formal camping areas. Community capacity also remains low, consistent with findings that rural communities in Ciambang lack organizational and marketing skills [17]. Curug Luhur is currently managed by Bina Muda Group, a youth community group established in 2021 with 17 members. While enthusiastic, the group faces constraints in planning, business innovation, and digital promotion.

Based on the identified conditions, this study addresses several key challenges faced by the destination, including the absence of an integrated masterplan to effectively manage spatial layout, visitor circulation, and supporting facilities. In addition, the limited innovation in the existing business model has resulted in a strong dependence on entrance fees, with minimal diversification of income sources, thereby constraining financial sustainability. Furthermore, weak destination branding and inadequate digital promotion have reduced the site's competitiveness within the rural tourism market. In response to these challenges, the community service program aims to develop a comprehensive spatial masterplan to improve infrastructure, enhance environmental quality, and elevate the overall visitor experience. The program also applies the Business Model Canvas (BMC) as a strategic tool to support income diversification, strengthen financial resilience, and inform more effective decision-making processes. Moreover, participatory branding and digital promotion training are implemented to empower Kelompok Bina Muda, enabling them to enhance destination visibility and engagement across various online platforms. The main contribution of this program lies in the formulation of a replicable development model for rural waterfall tourism that integrates spatial planning, business model innovation, and digital branding within a holistic community empowerment framework.

## 2. Method

This community service program was conducted from July to August 2025 in Ambar Jaya Village, Ciambang Sub-district, Sukabumi Regency. The study employed a qualitative Participatory Action Research (PAR) design using Participatory Rural Appraisal (PRA) as its main framework. This approach was selected because it enables communities to be directly involved in assessing their needs, prioritizing issues, and co-creating solutions, making it highly relevant for rural tourism development that emphasizes local ownership and sustainability. PRA aligns with the program's objectives by ensuring that interventions, master planning, and business model development reflect the actual conditions and aspirations of the Curug Luhur community [18], [19].

### 2.1. Participants and Sampling

Participants consisted of members of Bina Muda Group, village officials, representatives of the Ciambang sub-district, and local MSME actors. Purposive sampling was used to select stakeholders directly involved in tourism activities and decision-making processes. This

ensured that data collection captured diverse yet relevant perspectives from individuals with contextual knowledge of Curug Luhur.

## 2.2. Data Collection Techniques

Data were collected through four complementary methods:

### 1. Direct Observation

Conducted to document physical conditions, visitor flows, spatial issues, infrastructure gaps, and environmental characteristics of Curug Luhur.

### 2. Focus Group Discussions (FGDs)

Multiple FGDs were conducted to gather collective insights and build consensus.

Thematic FGDs included:

1. Masterplan Development FGD: Identifying spatial needs, visitor management, and infrastructure priorities.
2. Architectural Design FGD: Planning facility layouts, public space design, access improvements, and amenity development.
3. Branding (Logo & Tagline) FGD: Co-designing visual identity elements reflecting local culture and values.

### 3. Workshops and Hands-On Training

Used as both intervention and data-gathering moments to observe participants' skill development, engagement, and responses to training materials.

### 4. Surveys

Short questionnaires were distributed to assess participants' baseline understanding and post-training improvement related to tourism management, business modelling, and digital promotion.

## 2.3. Analytical Framework

Data analysis followed a structured analytical flow:

1. Descriptive Statistics (frequencies, percentage changes) were used to summarize survey responses and measure improvement in participants' knowledge and skills.
2. Evaluation Indicators included community participation level, clarity of priority issues identified, feasibility of proposed masterplan components, improvement in digital marketing competencies, and participant satisfaction.

## 2.4. Implementation Procedures

The methodological design was operationalized through three structured activities:

### 1. Focus Group Discussions (FGDs)

FGDs served to identify issues, prioritize development needs, and validate planning proposals. This stage generated qualitative insights and stakeholder consensus, forming the basis of the spatial masterplan, architectural concepts, and branding direction. Previous studies have shown that FGDs are effective for participatory problem identification and strategic planning in community-based tourism programs [20].

## 2. Training and Counseling Sessions

These sessions strengthened participants' knowledge of sustainable tourism, entrepreneurship, and digital marketing. Topics included: (a) Business Model Canvas (BMC) & SWOT Analysis to diversify income streams and support MSME integration in tourism; (b) UMKM Empowerment Modules on product management, market alignment, and value creation. Such training facilitates knowledge transfer and increases community capacity in tourism-based economic activities [21].

## 3. Hands-On Workshops

Participants engaged in practical exercises including: (a) Website and social media management; (b) Video content creation for promotional campaigns. Hands-on training has been shown to significantly enhance MSME competitiveness by improving their digital branding capabilities [22], [23].

### 2.5. Rationale for Using PRA

PRA was selected because it enables the co-creation of solutions that reflect local needs while strengthening community empowerment through shared decision-making. This approach enhances the adoption and sustainability of tourism interventions and fosters social learning and collective responsibility among stakeholders. Overall, PRA aligns closely with the program's goals to develop context-specific spatial planning, business models, and participatory branding strategies that are relevant and community-driven.

## 3. Results and Discussion

### 3.1. Participant Profile

The community service program involved a strategically diverse group of stakeholders from Desa Ambarjaya. Their participation reflected the governance, environmental management, and socio-economic sectors necessary for integrated rural tourism development in [Table 1](#). This diversity was essential not merely for representation but for ensuring that subsequent planning, business modelling, and branding decisions incorporated multidimensional perspectives, aligning with scholars who note that multi-stakeholder engagement strengthens tourism governance and reduces implementation risk [24], [25].

In addition, eleven MSMEs participated [Table 2](#), representing local culinary enterprises, handicrafts, and services. Their involvement positioned the tourism program not only as a spatial or environmental initiative but also as an economic empowerment strategy. The MSMEs' participation ensured that tourism planning was directly linked to livelihood enhancement, consistent with community-based tourism (CBT) principles emphasizing economic redistribution and local ownership.

### 3.2. Integrated Findings from Community-Based Tourism Development

CBT and sustainability principles, the Curug Luhur program was implemented as an integrated development system, rather than as a series of isolated activities. The program

deliberately combined participatory spatial planning, business model innovation, and branding-based digital engagement within a single analytical framework. Participatory master planning structured spatial use and visitor flow, the BMC translated local assets into viable economic activities, and branding and digital promotion mediated destination identity and market access. These components were linked through continuous community feedback, forming a unified and adaptive tourism development process.

**Table 1.** Representatives Participating in the FGD

No.	Institution	Number of Representatives	Roles / Expertise
1	Village Government	12	Village head, secretary, treasurer, planning, government affairs, social welfare, public services, general affairs, and Village Subdivision Head
2	Regional Development Planning Agency (BPD)	1	Chairperson
3	Family Welfare Empowerment (PKK)	1	Chairperson
4	Village Disaster Management Agency (BPBD)	2	Chairperson and member
5	Local Community Organization	1	Chairperson
6	Public Order and Security Unit	2	Officers
7	Forest Resort	1	Head
<b>Total</b>		<b>20</b>	

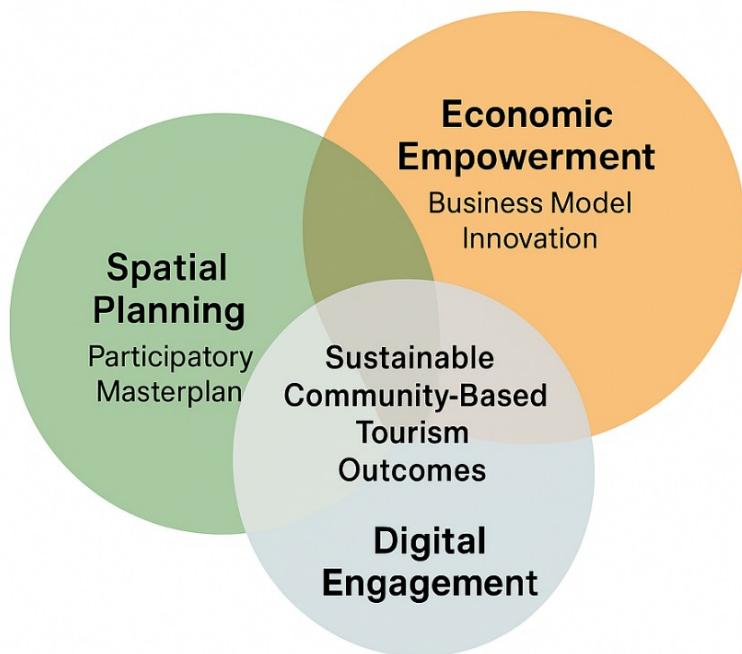
**Table 2.** Participants of the Training - Representatives from MSMEs

No.	Type of Business	Sector
1	Banana chips production	Local culinary
2	Cassava tape production	Local culinary
3	Opak singkong production	Local culinary
4	Rengginang production	Local culinary
5	Snack production	Local culinary
6	Traditional soto khas Ambarjaya	Local culinary
7	Wet cake production	Local culinary
8	Statue handicrafts	Handicrafts
9	Traditional sarung golok handicrafts	Handicrafts
10	Woven basket handicrafts	Handicrafts
11	Tailoring	Services

The interrelationships among these components are synthesized in [Figure 1](#), which conceptualizes the Curug Luhur initiative as an integrated CBT model. The framework illustrates how spatial planning, economic empowerment, and digital engagement function as mutually reinforcing pillars that collectively support sustainable rural tourism development.

The framework illustrates how participatory spatial planning (masterplan), economic empowerment through BMC, and branding-based digital engagement operate as an integrated and cyclical system. Continuous community feedback connects these components, enabling adaptive governance and supporting sustainable rural tourism development.

Empirically, program implementation generated three interrelated development components: (1) spatial planning and participatory design, (2) business model innovation and MSME empowerment, and (3) destination branding and digital promotion. Rather than functioning as standalone outputs, each component informed and reinforced the others, resulting in a coherent and cumulative development pathway. To operationalize this integration, program activities were organized into four analytical clusters: site assessment, participatory spatial planning, business model development, and branding/digital promotion. Each cluster produced outputs that directly informed subsequent stages, creating an interdependent implementation sequence in [Table 3](#).



**Figure 1.** Integrated CBT Development Framework for Curug Luhur.

Overall, the program formed an integrated intervention model that combined spatial planning, architectural design, business model innovation, community empowerment, and digital branding. This integration strengthened not only physical infrastructure and tourism services but also local governance capacity, economic resilience, and destination visibility, key dimensions of sustainable community-based tourism.

### 3.3. Spatial Planning and Participatory Design

From an analytical perspective, the initial site survey and participatory mapping at Curug Luhur functioned as strategic diagnostic stages, enabling the identification of carrying capacity

thresholds, visitor movement constraints, and safety risks that informed zoning decisions in the masterplan. This systematic assessment echoes recent reconceptualization of tourism carrying capacity that emphasize integration of ecological, managerial, and social dimensions for sustainable destination governance, particularly in protected and nature-based settings [26].

**Table 3.** Summary of Activities, Outputs, and Impacts of the Curug Luhur Community-Based Tourism Development Program

Activity	Output	Impact / Outcome
Initial Site Survey	Mapping of natural features, existing infrastructure, and potential points of interest.	Provided baseline data for Master Plan development; identified key zones and visitor circulation routes.
FGD Master Plan	Participatory Master Plan including zoning, visitor flow, and preliminary facility design.	Community-informed spatial planning; alignment of development with local needs and environmental considerations.
FGD Architectural Design Stage 1	Design of main entrance gate and signage.	Improved accessibility and wayfinding; created welcoming and culturally relevant entry point.
FGD Architectural Design Stage 2	Design of central tourist area and surrounding facilities.	Enhanced visitor comfort, safety, and functionality; facilitated integration of tourism services with local environment.
FGD Architectural Design Stage 3	Design of viewing decks and camping ground.	Provided recreational infrastructure; minimized environmental impact; offered new tourism experiences.
Business Management Training (SWOT & BMC)	Strategic business plans for tourism activities.	Diversified income streams (trekking, camping, UMKM); strengthened local entrepreneurship and community engagement.
UMKM Empowerment Training	Skill enhancement in product development, marketing, and integration with tourism.	Increased local income; fostered sustainable community-based economic growth.
FGD Branding (Logo & Tagline)	Destination identity reflecting local culture.	Enhanced brand recognition; fostered community ownership and pride.
Digital Promotion Training	Skills in website management, social media, and video content creation.	Expanded online presence; increased destination visibility and competitiveness; attracted broader audience.
Master Plan Finalization	Integrated spatial, architectural, and management plan.	Foundation for sustainable tourism development; structured visitor flow and facility placement; replicable model for other destinations.

The FGD-based master planning shifted the approach from descriptive mapping toward deliberative spatial governance, where design scenarios were negotiated collaboratively rather than imposed. Such inclusive spatial decision-making aligns with participatory tourism frameworks that highlight multi-stakeholder engagement as essential for legitimacy and

sustainability in community tourism planning [27]. Moreover, masterplanning that incorporates local wisdom and community insights has been shown to strengthen destination identity and socio-environmental fit in rural tourism contexts [28].

As seen in [Figure 2](#), The architectural design FGDs, implemented across three sequential stages, further operationalized this integrative logic. Entry gates and signage were conceptualized not only as functional infrastructure but as symbolic thresholds that communicate destination identity and regulate visitor movement from the outset. Central tourism facilities were designed in direct alignment with the masterplan's circulation framework, ensuring coherence between spatial layout and visitor experience. Similarly, the placement of viewing decks and camping grounds reflected a deliberate trade-off between experiential value and environmental sensitivity, maximizing scenic engagement while avoiding ecological overuse. These design outcomes illustrate how participatory architecture can translate abstract sustainability principles into concrete spatial interventions, bridging the gap between planning ideals and on-the-ground implementation.



**Figure 2.** FGDs on Master Plan and Architectural Design

### 3.4. Business Model Innovation as a Mediating Mechanism

A key analytical contribution of this program lies in positioning the BMC as a mediating mechanism between spatial planning outcomes and long-term economic sustainability, rather than treating it as a standalone entrepreneurial tool. Through facilitated BMC workshops, community members were encouraged to reinterpret the participatory masterplan not merely as a physical blueprint, but as a structured portfolio of value propositions embedded within specific spatial zones. As seen in [Figure 3](#), trekking routes, camping facilities, and MSME clusters were systematically mapped onto customer segments, revenue streams, cost structures, and partnership models, thereby translating spatial potential into concrete and diversified livelihood strategies.

This approach reflects recent research showing that participatory application of the BMC in village and rural tourism settings can strengthen entrepreneurial planning and support diversified income strategies. For example, studies in various Indonesian tourism villages demonstrate that BMC helps clarify business components and enhances community engagement in tourism development, linking elements such as value propositions and partnerships with long-term sustainability objectives [29], and facilitating strategic destination

planning rooted in local resource advantages and community structures [30]. Moreover, research applying the BMC approach in community-based ecotourism and eco-Edu tourism contexts shows that embedding BMC within participatory planning and resource analysis enables the integration of ecological, social, and economic dimensions of sustainability [31], [32].

However, the Curug Luhur case also revealed important limitations. Several participants initially struggled to translate abstract BMC components, such as value propositions and cost structures, into operational decisions, particularly those with limited prior business experience. This challenge suggests that short-term workshops alone are insufficient for internalizing business model thinking at the community level without sustained mentoring and iterative coaching. From a broader sustainability perspective, the lesson from Curug Luhur is that BMC is most effective as a bridge linking spatial planning outcomes with economic logic and community aspirations. When integrated with participatory master planning and reinforced through branding and digital promotion, as visualized in [Figure 1](#), the model becomes transferable to other rural and nature-based tourism destinations, provided enabling conditions such as facilitation intensity, local market access, and ongoing capacity building are present.



**Figure 3.** Business Model Training and MSME Empowerment Workshop

### 3.5. Branding and Digital Promotion as Amplifiers of the Integrated Model

As seen in [Figure 4](#), the Curug Luhur program, branding and digital promotion were conceptualized not as isolated market communication tasks, but as strategic amplifiers of the integrated masterplan-BMC framework, strengthening both internal cohesion and external visibility. The participatory branding process ensured that the community-endorsed logo and tagline were rooted in local narratives, aligning destination identity with cultural authenticity and community ownership. This aligns with recent research showing that co-created branding enhances destination distinctiveness and local engagement, particularly in rural and community-based tourism contexts where authenticity is a key competitive advantage [33].

The strategic use of social media platforms in post-pandemic tourism has been shown to significantly boost destination visibility, foster engagement, and influence travel intentions

through visual storytelling and interactive content (e.g., Instagram, YouTube) digital engagement research confirms these effects [34], [35].

However, challenges emerged in maintaining content consistency and technical management, particularly among older participants with limited digital literacy. These limitations underscore the importance of intergenerational collaboration and youth engagement in sustaining digital promotion efforts. Local youth groups such as Kelompok Bina Muda played a central role in content creation and platform management, reinforcing findings from case studies showing that youth digital agency can revitalize rural tourism branding and contribute meaningfully to destination promotion [36].



Figure 4. FGD on Branding and Training on Website & Social Media Management

### 3.6. Participant Satisfaction of the Overall Program

Following the program activities, participants from Kelompok Bina Muda, local MSMEs, and village officials evaluated their satisfaction using a Likert scale (1–5). As shown in [Table 4](#), 82% of respondents reported high overall satisfaction, with specific components such as Business Management Training (4.7), Master Plan FGD (4.7), and Site Survey & Mapping (4.7) receiving the highest scores. Participants appreciated gaining practical skills, strategic planning knowledge, and hands-on experience in areas such as digital promotion, entrepreneurship, and spatial design. They also noted that the program strengthened collaboration and a sense of collective ownership among community members, indicating that the integrated approach combining participatory planning, capacity building, and practical training was both effective and well-received in the local context.

In addition to the quantitative scores, participants provided qualitative feedback highlighting the program's impact on enhancing practical skills. Many reported increased confidences in managing tourism activities and local MSME initiatives. Several respondents specifically noted that the hands-on workshops, particularly in digital marketing and video content creation, were highly relevant for promoting Curug Luhur to broader audiences. Youth members of Bina Muda Group further emphasized that the program fostered collaboration among community members, strengthening a sense of collective responsibility for tourism development.

**Table 4.** Participant Satisfaction with Program Components of the Curug Luhur Community-Based Tourism Development Program (Likert Scale 1–5)

Program Component	Average Satisfaction Score (1–5)	Key Feedback
Site Survey & Mapping	4.7	Participants appreciated being involved in identifying local potentials and constraints, creating a sense of ownership.
FGD Master Plan	4.7	High satisfaction due to active involvement in spatial planning and input on visitor circulation and zoning.
FGD Architectural Design	4.6	Participants felt their cultural and functional input was valued in designing facilities and infrastructure.
Business Management Training (BMC & SWOT)	4.5	Most participants reported improved understanding of income diversification and local entrepreneurship strategies.
UMKM Empowerment Training	4.5	Training helped participants develop practical skills for product development and tourism-related business management.
Branding & Digital Promotion	4.6	Participants were motivated by hands-on experience in logo creation, website management, and social media content production.

#### 4. Conclusion

This community service program demonstrated that an integrated and participatory approach can effectively address the challenges of developing Curug Luhur as a sustainable rural tourism destination. The initiative successfully realized the goals introduced at the outset improving infrastructure, diversifying business strategies, and elevating digital branding through participatory master planning, architectural design, MSME empowerment, and digital promotion training. The outcomes of these activities not only enhanced physical facilities and tourism services but also strengthened community ownership, entrepreneurial capacity, and destination visibility. By embedding local voices in every stage of planning and implementation, the program cultivated a sense of shared responsibility and strengthened collaboration between stakeholders, thereby laying a solid foundation for long-term sustainability. These achievements also highlight the replicable nature of the model, offering valuable insights for similar rural destinations in Indonesia and beyond. In doing so, this initiative aligns closely with the Sustainable Development Goals (SDGs) by integrating community empowerment, environmental stewardship, and multi-stakeholder collaboration. It advances SDG 8 (Decent Work and Economic Growth) through MSME empowerment and entrepreneurship training, while also supporting SDG 11 (Sustainable Cities and Communities) and SDG 15 (Life on Land) through the culturally rooted and environmentally sensitive design of facilities such as signage, resting areas, viewing decks, and camping grounds.

The participatory use of FGDs ensured that infrastructure planning incorporated local voices, preserved cultural values, and minimized ecological impacts. At the same time, the program reflects SDG 17 (Partnerships for the Goals) by fostering collaboration among universities, local government, youth groups, and MSMEs, illustrating how partnerships can drive inclusive and sustainable rural tourism development. For future initiatives, it is recommended that this program be followed by longitudinal evaluation to assess its long-term socioeconomic and environmental impacts, particularly on community income, visitor growth, and ecological sustainability. Subsequent programs may also focus on strengthening destination governance through formal tourism management institutions, expanding digital marketing through data-driven strategies, and integrating eco-tourism certification standards. Further research could explore the scalability of this participatory model across diverse rural contexts and examine the role of policy support and private sector involvement in sustaining community-based tourism development.

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