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Designing Inclusive and Sustainable Community Tourism in Rural Destinations: Strategy for the Future Tourism Economy

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ABSTRACT

The current global tourism industry has reached a critical point, managing complex socio-cultural, environmental, and economic interdependencies. Furthermore, literature on community-based tourism (CBT) significantly underrepresents rural Asian destinations, with research in Indonesia often remaining descriptive rather than offering strategic pathways for relevant development. This study explores strategic approaches to developing sustainable, inclusive community tourism in Samosir, Indonesia. With sustainable tourism development as an analytical lens, the research evaluates the destination through its three fundamental pillars: economic, environmental, and socio-cultural. The study uses Design Thinking (DT) as a qualitative research methodology, applying it as a human-centered problem-solving technique to address systemic challenges facing the destination. The study collected empirical data through semi-structured interviews with 24 purposively selected participants to provide insights into the current stage of development, trends, and strategy identification. Thematic analysis reveals that these travelers seek authentic Batak cultural immersion and peaceful rural environments to escape urban pressures. The results indicate that the "Dinner by the Lake" prototype shows how Design Thinking can serve as a strategic intervention tool to integrate sustainability principles, such as local procurement and waste reduction, directly into tourism operations. This research provides a contextualized strategy and pathway for rural destinations to achieve environmental resilience and social equity while maintaining globally competitive experiential differentiation.

Keywords: Community Tourism, Design Thinking, Rural Development, & Sustainable Tourism

1. Introduction

Shifting away from traditional quantity-based development logic, contemporary academic discourse advocates for a sustainability-oriented paradigm. This applies to the tourism industry. Development should always fully account for current and future impacts while addressing the needs of visitors, the industry, the environment, and host communities. At its core, sustainable tourism development rests on three essential pillars: economic development, environmental protection, and socio-cultural development. Although Community-Based Tourism (CBT) is an established strategic development approach, a research gap remains in its application to rural destinations in Asia, which is underrepresented in international literature. This discussion remains largely descriptive and offers no empirical pathways for operationalizing sustainability (Fahmi et al., 2025; Giampiccoli & Mtapuri, 2020). This study addresses this gap by positioning Design Thinking (DT) not merely

as a creative tool, but as an appropriate qualitative research methodology. Framed as a human-centered problem-solving approach, this work moves beyond linear models toward a circular economy paradigm. By integrating Design Thinking and sustainable tourism development, this study aims to address systemic destination challenges by co-creating innovations that meet specific needs in community tourism development.

This research focuses on Samosir in the Lake Toba region, a prioritized destination in Indonesia with abundant natural and cultural potential yet low sustainability in its development. Currently, only 10 of Indonesia's 6,000 tourism villages are nationally recognized for their commitment to sustainability (Bank Central Asia, 2025; UN Tourism, 2025), underscoring the need for context-specific research. Consequently, this study seeks to answer: How is sustainable community tourism developing in Samosir, and what are tourists' associated behaviors? How can community tourism experiences be effectively redesigned to align with inclusion and sustainability indicators? Moreover, how can rural destinations navigate the future tourism economy through inclusive and sustainable stewardship?

2. Literature Review

2.1 Sustainable and Inclusive Tourism Development

Sustainable tourism development should extend beyond environmental stewardship to include sustainable management, socio-economic impacts, and cultural preservation (GSTC, 2019). First, sustainable management is often critiqued for prioritizing bureaucratic metrics over local realities. In rural Asia, a significant gap often exists between policy and practice, where top-down certifications may overlook communal land rights. Integrating Design Thinking (DT) can deconstruct hierarchies and enable adaptive governance rather than static administration (Hall, 2019). Second, socio-economic impacts must be viewed through the lens of equal economic contribution. Tourism is framed as a tool for diversification, helping community members with complementary income. However, it often creates a dependency trap characterized by economic leakage and the marginalization of traditional livelihoods (Higgins-Desbiolles et al., 2022). Third, tourism can preserve culture while supporting economic growth. However, cultural preservation faces the authenticity paradox, where heritage risks commodification to meet tourist expectations (MacCannell, 1973). Therefore, tourism should promote cultural agency by giving communities the right to evolve traditions on their own terms. Lastly, environmental stewardship must go beyond mere resource efficiency. In regions like Lake Toba, this requires a regenerative approach to manage water and waste through inclusive, collective action (Bellato & Pollock, 2025).

In this context, inclusivity refers to the extent to which groups typically on the margins, including but not limited to women, young people, and those in the informal economy, are included in tourism value chains and related decision-making structures. Tourism development should let local communities participate in planning and management, preserve their culture, and eventually receive economic benefits, rather than being neglected (Prastiwi & Sari, 2025). In rural destinations, inclusivity is especially crucial because local communities often face systemic challenges such as inadequate skills and education, limited market access, and insufficient institutional support (Stone & Nyaupane, 2016). Thus, without addressing these issues, community tourism risks becoming a symbolic label rather than a transformative development tool.

Sustainability and inclusion are not isolated ideals but mutually reinforcing concepts that should operate in seamless complementarity (Apollo et al., 2025). Both principles share the same ultimate objective: leaving no one behind. This integration is critical, as sustainability efforts that exclude vulnerable populations are inherently unsustainable, and inclusive development that ignores environmental limits is fundamentally short-sighted.

2.2 Rural Community Tourism and Its Directions

Community-based tourism (CBT), like inclusive tourism, is an established development approach in which local communities, including those in rural areas, are central to decision-making and the primary beneficiaries of tourism planning and management (Goodwin & Santilli, 2009). In rural development, CBT is a powerful strategy. It diversifies local livelihoods, revives cultural heritage, and strengthens social cohesion (Manyara & Jones, 2007). Furthermore, CBT has shown its important role in alleviating poverty, particularly when governance is participatory and economic leakages are minimized (Scheyvens & Biddulph, 2018).

Nonetheless, empirical evidence also highlights significant challenges for CBT, such as dependence on external parties and a lack of managerial expertise, which can jeopardize its intended developmental benefits (Kontogeorgopoulos et al., 2014).

In recent years, young tourists have driven an important discussion in tourism research because they prefer authentic, participatory, and immersive experiences. This group increasingly seeks meaningful interactions with local communities and is willing to pay for immersive cultural and nature-based activities (Ketter, 2020). While community tourism principles align with this trend, many rural destinations struggle to convert their cultural assets into market-ready experiences. This difficulty stems from deficiencies in product design and inadequate digital communication infrastructure (Higgins-Desbiolles, 2018).

3. Research Method

This study employs a qualitative approach, utilizing the interactive and innovative Design Thinking methodology to identify and guide the development stages of community tourism experiences in Samosir. This approach is rooted in the research-through-design tradition, allowing the design process to generate new knowledge. Far from being a mere creative exercise, Design Thinking serves as a human-centered problem-solving methodology that blends innovation with economically viable, technologically practical solutions. Design Thinking supports user-centered innovation to meet specific needs, objectives, or aspirations (ISO, 2019). In this context, "users" are the relevant stakeholders, including tourists, the local community, and businesses. Because this research focuses on creating tourism products for visitors, the design and innovation process maintains a strong tourist-centric perspective throughout.

This methodology draws on multiple disciplines, including tourism (Willmott, 2019), and DT is particularly suitable because it emphasizes human-centredness, abductive reasoning, and an iterative process that enables context-sensitive solutions (Carlgren et al., 2014; Liedtka, 2020). The methodology goes through several iterative phases: understand and define, ideate and design, and prototype and test. In the first phase, the team conducted interactive data collection through semi-structured interviews to understand and define user requirements (tourists). This phase aimed to develop an in-depth understanding of young domestic travelers' behaviors, motivations, and expectations.

We collected primary data through semi-structured interviews with purposively selected participants. These included 19 young domestic tourists from the immediate region (Sumatra) and other areas, such as Java, as well as 5 local community members and business owners. In the first phase, purposive sampling ensured participants had direct experience with rural tourism in Samosir, allowing them to provide rich, relevant insights. The team applied the same sampling technique during the prototype phase with potential local tourists who had not yet visited Samosir. The team transcribed and thematically analyzed the interview data. This analysis informs each Design Thinking phase, linking empirical findings to strategic outputs.

Table 1. Interview Participants.

Interviewees	Total number	Codes
Young domestic tourists who have been to Samosir	10	UD
Young domestic tourists who have not been to Samosir	10	PT
Local business owners	2	BO
Community members	3	CM

The second phase focused on generating strategic concepts for sustainable, inclusive community tourism experiences, using user insights as the foundation for solutions. The team synthesized insights from the initial phase to identify key takeaways, opportunities, and user requirements. To translate these empirical findings into strategic propositions, the research used collaborative ideation techniques, including thematic clustering and concept mapping. These propositions encompass experience design components, community engagement mechanisms, and communication strategies that embody principles of sustainability and inclusivity. As emphasized in Design Thinking literature (Liedtka, 2015), this ideation process fosters creativity while remaining firmly grounded in authentic user data.

The final stage involved translating the selected solutions into visual prototypes. This included developing simple, low-fidelity versions, such as conceptual experience journeys and visual narratives, to illustrate a redesigned model for community tourism in Samosir. The researcher then presented these prototypes to selected participants for feedback through subsequent interviews. This iterative testing process is essential to refine the proposed strategies and ensure their relevance, feasibility, and contextual suitability (Brown, 2008). However, because of the academic nature of this research and time and funding limitations, the comprehensive Test phase was not conducted.

This research uses Braun and Clarke's thematic analysis (Byrne, 2022). The process begins with open coding to identify patterns related to stakeholders' motivations and concerns. These initial codes are then synthesized into broader themes and mapped onto specific indicators of sustainable tourism (e.g., waste management, cultural heritage, etc.) To conduct ethically responsible research, all participants received information about the research objectives, procedures, and expected outcomes. This study also obtained informed consent from participants to ensure a shared understanding of the research purpose, risks, and implications.

4. Results & Discussions

4.1 Results

This chapter presents findings from 24 semi-structured interviews with domestic young travelers, local community members, and business owners. This chapter is structured around the integration of sustainable tourism development pillars and two phases of the design thinking methodology. The first phase, focusing on the Understand & Define stage (15 interviews), presents the themes that emerged regarding the current stage of development and tourists' experience during their visit to Samosir. The second phase, focusing on the Prototype stage (9 interviews), highlights the main themes (feedback) from this stage. The second part explores how the community tourism experience can be redesigned to align with tourists' requirements and assesses the potential tourists' intention to visit Samosir. This process was all aligned with the principles of sustainable tourism development as discussed in the previous chapter

4.1.1 Understanding & Defining

4.1.1.1 Tourists' Behaviors Towards Rural Tourism in Samosir

An analysis of tourist behavior regarding community tourism in Samosir revealed key preferences. First, tourists are drawn to the destination for its unique, authentic local culture and peaceful, rural environment. Interview participants widely supported this, citing a desire for cultural experience and the opportunity to relax as their main motivations. One UD interviewee noted, "We all know that Samosir is a significant part of Lake Toba. However, it is not just about the beautiful nature but also their distinguished and rich culture. For us young people, it is so exciting." In addition, preferences differ between domestic travelers from nearby North Sumatra towns/cities and those from other provinces. While visitors from other provinces actively seek both natural and cultural experiences, travelers from North Sumatra tend to focus mainly on nature, likely because they share similar cultural backgrounds. Therefore, recognizing these distinct requirements is crucial, although both groups are categorized under the same 'domestic traveler' umbrella.

Second, most interviewees preferred traveling with friends or family. Trips with friends often stem from shared interests, particularly cultural heritage, local history, and cuisine. For family groups, Samosir is a particularly suitable destination because its continuously improving tourism infrastructure makes most tourist spots easily accessible. A notable finding is that most interviewees prefer visiting Samosir during the off-peak season, typically from February to April. This preference stems from a desire to avoid crowded situations. Interviewees emphasized that they visit the rural area to escape the busy city lifestyle and relax in a quieter environment. As one UD Interviewee put it, "This (Samosir) is our 'getaway' destination. We want to forget our busy life for a moment, relax, recharge, and become more productive once we get back to the city. That is why fewer tourists mean a more peaceful and enjoyable experience."

Finally, Interviewees primarily rely on three sources for information regarding rural destinations: friends, family, and the internet. They mainly seek recommendations for local activities, hidden gems, or other unique points of interest. The internet, particularly social media platforms like TikTok, Reels, and Facebook, plays a significant role. Visual content, such as traditional houses and fabrics, authentic local cuisine, and scenes like

camping grounds overlooking Lake Toba, often serves as a key travel inspiration trigger. This observation aligns with research showing a shift from institutional destination marketing to influencer marketing and peer-generated narratives (Higgins-Desbiolles, 2020; Ketter, 2020). This reflects a broader digital-era consumer preference for responsible, genuine, relatable travel experiences communicated through trusted social networks rather than conventional, formal messaging. Consequently, the power to shape a destination's image is becoming increasingly distributed, with individual influencers or content creators playing a critical role in the travel ecosystem (Wulyatiningsih et al., 2026).

The interview findings indicated a scarcity of information regarding community-led tourism activities or initiatives. This suggests limited community involvement in the local tourism communication strategy. In contrast, official tourism websites were criticized for being outdated, poorly organized, overly promotional, and lacking practical advice for travelers. This reliance on unofficial digital intermediaries undermines rural communities' ability to shape their own destination's image [16].

Another concern in Samosir's rural tourism development is overall customer satisfaction. Tourists appreciate the natural scenery, Batak cultural expressions, and warm community interactions that help them connect and immerse themselves (Pine & Gilmore, 1999). However, operational deficiencies reduce tourist satisfaction (Hikmah et al., 2024).

These issues include limited signage, poor waste management (such as plastic pollution and a lack of recycling facilities), unstable mobile networks, fragmented transport systems, and unclear pricing. Almost all interviewees confirmed that pricing was unclear. Some encountered unexplained informal levies, which led to confusion and distrust. Such findings mirror broader critiques of Indonesian rural tourism, where infrastructural and governance challenges hinder long-term sustainability (Sari & Lestari, 2021; Sutawa, 2012). From another perspective, these operational gaps not only reduce satisfaction but also restrict inclusivity. Interviewees noted that only certain actors seemed to benefit from tourism, where tourism revenue circulates among a particular group of operators rather than being distributed across the community. This also affects destination branding and tourists' intention to revisit (Nguyen Viet et al., 2020).

4.1.1.2 Tourists' Behaviors Towards Sustainable and Inclusive Community Tourism in Samosir

As discussed in the literature review, sustainability and inclusion are interdependent and should be pursued concurrently. First, in sustainable management, the local government shows a strong commitment to tourism development in the region, acknowledging its status as one of Indonesia's main priority destinations. Samosir has established several designated tourism centers and developed supporting infrastructure. One BO interviewee confirmed, "As a service provider, we always try to meet our customers' satisfaction. Legally, we are pilot projects instructed by the central government. Local businesses here also utilize online platforms for their marketing."

Secondly, interviewees confirmed that they share the awareness of protecting nature and reducing pressure on the environment when visiting. This includes, but is not limited to, reducing personal waste, eliminating pollution, reducing personal energy consumption, and avoiding littering. One UD interviewee underscored this commitment, "We of course do not want to harm or cause any negative impacts on the local environment; for me personally, I will take care of my own litter and even bring home compostable waste for my garden." In addition, most interviewees consistently described Samosir as a great nature-based destination, making it easy to enjoy without consuming many energy resources. One UD interviewee added, "You know, Samosir is just so beautiful that I will spend more time outside with nature. That means I do not use as much electricity if I choose to stay at my accommodation or be on my phone, consuming more energy/electricity." On the other hand, environmental concern is a growing issue in Samosir. As previous research by Pardosi indicates, environmental management and issues are not yet priorities for the local government. Interviewee CM and BO consistently confirmed that issues such as waste management, plastic reduction, and other environmental degradation problems are increasingly threatening in Samosir.

Thirdly, cultural sustainability and inclusivity remain a significant feature of tourism development in Samosir. Most interviewees confirmed their desire to interact closely with local communities and discover the stories behind Batak culture in Samosir. They frequently mentioned ways to interact with locals through culinary

experiences, traditional markets, festivals, events, and ceremonies. However, tourism development can be both an opportunity and a challenge for the destination's socio-culture. While tourism creates opportunities for cultural preservation, heritage revitalization, and increased community pride, it also introduces substantial challenges. Tourism expansion can commodify cultural practices, affecting local authenticity to meet tourist demand. Thus, it is important to develop strategies for balancing economic benefits with the imperative of socio-cultural sustainability and preservation (Gaonkar & Sukthankar, 2025).

Finally, the socio-economic aspect of tourism development plays an essential role in tourism business sustainability. In the interviews, all interviewees reported understanding tourism's developmental role, especially through economic growth at the local community level. This underscores the vital principle of inclusive tourism, ensuring not only participation but also tangible economic benefits, which is crucial for poverty reduction efforts (Giampiccoli & Mtapuri, 2020). From the UD Interviews, one participant stated, “Every time we buy something, we contribute. That is also why I always prefer locally owned businesses to help them sustain their efforts.” Another point that supports previous studies is that tourists are willing to pay more for unique, local, or authentic experiences. They highly value local identity because it offers unique, unrepeatable experiences (Satrya et al., 2024).

From the local community members' perspective, sustainable and inclusive tourism development is something new and challenging. “We are proud of our culture, and we are happy to share it. We usually serve tourists with our home-made local cuisine; however, we still find it difficult to reduce plastic waste and to market what we offer.” This finding stresses that locals are willing to support sustainable tourism practices in Samosir.

From the findings above, participants' requirements as tourists can be defined as follows: young domestic travelers want to visit Samosir to relax from the busy life in the city; they want to experience local, unique, or authentic culture in Samosir; they want to interact with the local community; and they want to travel with friends or family. Most of this group is also aware of tourism sustainability and inclusion. In addition, Samosir still needs relevant sustainable management and stronger community empowerment. Building on the key themes from the Understand & Define phase, the next phase explores ideas for redesigning community tourism in Samosir.

4.1.2 Ideating & Designing

Based on the key themes identified in the initial phase, the subsequent step is to develop and design a community tourism activity that addresses the established requirements. To meet all requirements within time and budget constraints, a culture-based experience was selected as the most suitable option. This activity should provide young tourists in Samosir with a relaxing, authentic local culture experience through a culinary event, while inspiring and educating community members to internalize and operationalize sustainable tourism practices. It fosters interaction with the local community and encourages participation in environmentally friendly activities.

Table 2. Sustainable and Inclusive Community Tourism in Samosir.

No	Components	Description
1	Design Name	Dinner with Locals (culinary event)
2	Tourism Sustainability	Management: Legality, marketing, and tourists' satisfaction. Economic: local economic contribution (e.g., event tickets, souvenirs, transportation, etc.) Environment: minimum plastic waste (e.g., plastic-free packaging, energy efficiency) Socio-culture: community involvement, culture preservation, and traditional cuisine campaigns among young travelers.
3	Tourism Inclusion	Local community participation and community-level economic benefits
4	Location	Huta Raja, Pangururan, a tourism village in Samosir
5	Duration	2-3 hours
6	Group size	Suitable for a group of friends or family, 4-10 people

No	Components	Description
7	Options	4-6 people: 180.000 7-10 people: IDR 280,000
8	Communication strategy	Reflects and showcases the principles of sustainable & inclusive community tourism and promotes environmentally friendly behaviors
9	Marketing channel	The most popular online platforms among young travelers: Instagram, TikTok, or Facebook.
10	Activities	1. Guests' welcome 2. Dining experience (local cuisine options: Natinombur (fish), Napinadar (chicken), etc.) 3. Guests' farewell

4.1.3 Prototyping

The solution design was transformed into a visual prototype as a fictitious community tourism event. This phase involves developing a simple, low-fidelity prototype, such as experience inspiration, a visually appealing image (AI-generated), and narratives that illustrate how community tourism in Samosir can be redesigned. Based on the findings and design from the previous phase, the prototype is marketing material that can be shared through social media channels such as TikTok and Instagram. These platforms are currently considered popular for travel inspiration. This will help the experience reach its audience.

The prototype integrates indicators of sustainable and inclusive community tourism. It highlights relevant information on sustainable management, socio-economic impacts, cultural preservation, and pro-environmental tourism practices. The prototype was presented to selected participants for feedback through 9 semi-structured interviews across 3 sessions. This iterative process refines proposed strategies based on key themes that emerged from one session to the next, ensuring their relevance, feasibility, and contextual suitability (Brown, 2008). The table below shows the first version of the visualized design.

Table 3. Dinner with Locals – Prototype #1.

Visual and description	Description
Samosir Culinary Experience 	Immerse yourself in the Batak people's rich culinary traditions with a dinner experience in Samosir. Set in the picturesque village of Huta Raja in Pangururan, this 2-hour event offers a unique opportunity to savor authentic Batak cuisine in a warm setting. Gather with your group of 4 to 10 people in front of the traditional Batak house. The dining area is thoughtfully arranged with rich natural and cultural elements, with accessories that enhance the experience. Indulge in 3-5 local specialties, including naniarsik, napinadar, and natinombur. Each dish is carefully prepared to showcase Batak flavors and techniques. What is included: Full meal, snacks, and drinks What is not included: Transportation to and from the location Options: 4-6 people: 180.000; 7-10 people: 280.000 Reservation: Reserve now and pay later - Free Cancellation Location: Kampung Ulos Huta Raja Our Eco-friendly initiatives: Carbon Control: 80% of our ingredients are sourced locally within 10km

Visual and description	Description
	Wise Waste: minimum plastic waste, especially single-use plastics #Traditional #LocalCulture #Culinary #Community #Samosir #LakeToba

The prototype was presented, and feedback was collected from potential tourists who had never visited Samosir. In this session, all interviewees proposed an acceptable price range of IDR 200,000- 300,000. They also suggested holding the activity near the lake. An interviewee, PT, stated, “This region is known for its beautiful Lake Toba; I think it will be better to highlight this, including in the visualization.” Incorporating the two key themes, the price was increased by IDR 20.00. The event theme was changed from "Dinner with Locals" to "Dinner by the Lake." The revised prototype, detailed below, was subsequently introduced in the following session.

Table 3. Dinner with Locals – Prototype #2.

Visual and description	Description
Samosir Culinary Experience 	Immerse yourself in the Batak people's rich culinary traditions with a dinner experience in Samosir. Set in the picturesque village of Huta Raja in Pangururan, this 2-hour event offers a unique opportunity to savor authentic Batak cuisine in a warm setting. Gather with your group of 4 to 10 people in front of the traditional Batak house. The dining area is thoughtfully arranged with rich natural and cultural elements, with accessories that enhance the experience. Indulge in 3-5 local specialties, including naniarsik, napinadar, and natinombur. Each dish is carefully prepared to showcase Batak flavors and techniques. What is included: Full meal, snacks, and drinks What is not included: Transportation to and from the location Options: 4-6 people: 180.000; 7-10 people: 280.000 Reservation: Reserve now and pay later - Free Cancellation Location: Kampung Ulos Huta Raja Our Eco-friendly initiatives: Carbon Control: 80% of our ingredients are sourced locally within 10km Wise Waste: minimum plastic waste, especially single-use plastics #Traditional #LocalCulture #Culinary #Community #Samosir #LakeToba

In the second interview session, other essential elements for the prototype emerged. Interviewees suggested including an inclusion and sustainability message in the caption. “I believe it is a great feature to let the audience know that they actively contribute to sustainability and inclusion, explicitly.” (interviewee PT). This addition is essential to the prototype because it highlights sustainability and inclusion. The added sentence is intended to be thought-provoking rather than merely instructional. It aligns with broader tourism discourse, which recognizes that a particular interpretive approach can potentially drive positive behavioral changes among tourists (Wang et al., 2025). Below is the modified prototype.

Table 5. Dinner by The Lake – Prototype #3.

Visual and description	Description
Samosir Culinary Experience 	Immerse yourself in the rich culinary traditions of the Batak people with a dinner experience in Samosir. Set in the picturesque village of Huta Raja in Pangururan, this 2-hour event offers a unique opportunity to savor authentic Batak cuisine in a warm setting. Gather with your group of 4 to 10 people in front of the traditional Batak house. The dining area is thoughtfully arranged with rich natural and cultural elements, with accessories that enhance the experience. Indulge in 3-5 local specialties, including naniarsik, napinadar, and natinombur. Each dish is carefully prepared to showcase Batak flavors and techniques. What is included: Full meal, snacks, and drinks What is not included: Transportation to and from the location Options: 4-6 people: 180.000; 7-10 people: 280.000 Reservation: Reserve now and pay later - Free Cancellation Location: Kampung Ulos Huta Raja Our Eco-friendly initiatives: Carbon Control: 80% of our ingredients are sourced locally within 10km Wise Waste: minimum plastic waste, especially single-use plastics #Traditional #LocalCulture #Culinary #Community #Samosir #LakeToba

From the last interview session, one important theme emerged. Interviewees suggested adding a short description to the image to indicate the products. They believe the image is the first thing the audience sees before going further, including reading the caption. Therefore, adding a short text, such as the event theme, is appropriate to attract audience attention. This adds a visual adjustment, as shown below.

Table 6. Dinner by The Lake – Prototype #4.

Visual and description	Description
Samosir Culinary Experience 	Immerse yourself in the rich culinary traditions of the Batak people with a dinner experience in Samosir. Set in the picturesque village of Huta Raja in Pangururan, this 2-hour event offers a unique opportunity to savor authentic Batak cuisine in a warm setting. Gather with your group of 4 to 10 people right beside the beautiful Lake Toba. The dining area is thoughtfully arranged to reflect rich natural and cultural elements, with accessories enhancing the experience. Indulge in 3-5 local specialties, including naniarsik, napinadar, and natinombur. Each dish is carefully prepared to showcase Batak flavors and techniques. What is included: Full meal, snacks, and drinks What is not included: Transportation to and from the location Options: 4-6 people: 200.000; 7-10 people: 300.000 Reservation: Reserve now and pay later - Free Cancellation Location: Kampung Ulos Huta Raja By joining this event, you support our local community, preserve our culture, and promote more inclusive and sustainable tourism development in our region. Our Eco-friendly initiatives: Carbon Control: 80% of our ingredients are sourced locally within 10km Wise Waste: Minimum plastic waste, especially single-use plastics #Traditional #LocalCulture #Culinary #Community #Samosir #LakeToba

From the Prototype phase, several important aspects stand out. The target tourist group strongly intends to support the local community economically by spending more at the event. This is aligned with principles of sustainable and inclusive community tourism. Additionally, they have a positive attitude towards sustainability and inclusion, as shown by their explicit message encouraging tourist participation in promoting sustainable and inclusive community tourism in Samosir. This highlights their commitment to pro-social and environmentally responsible tourism development and practices. By integrating social responsibility and environmental stewardship into the event’s core operations, it lets tourists contribute to the destination's well-being, ensuring their actions lead to positive, sustainable outcomes across community, environmental, and cultural heritage dimensions. This holistic approach signals a long-term vision for responsible tourism (Suriyankietkaew et al., 2025). This section shows how DT can engage with user data and integrate the research's main ideas (sustainability and inclusion) into the iterative process.

4.2 Discussion

This chapter evaluates how sustainable and inclusive tourism are being developed in Samosir communities and what should be taken forward.

4.2.1 Sustainable Tourism Development Challenges: Awareness Without System

As noted in the first phase, the environment is a major concern for young domestic tourists. This is a crucial issue; for example, poor waste management in Samosir can disappoint tourists. Advancing sustainable tourism means promoting sustainable practices throughout tourists' journeys. This requires destinations to deliver not only economic value but also environmental protection (Boluk et al., 2019). However, sustainability in Samosir remains symbolic rather than truly operational. While sustainability practices exist, such as limited recycling facilities, signage, and marketing materials, functional operational systems and infrastructure to manage environmental impacts are still lacking. Without tangible, measurable systems as well as local suppliers' empowerment that effectively translate the stated concerns among tourists (e.g., proper waste disposal, reduced resource consumption and pollution) into verifiable community-level improvements or positive environmental outcomes (e.g., reduced landfill volume), the entire sustainability vision risks becoming performative instead of transformative.

Eliminating this bottleneck is essential for Samosir to make meaningful progress toward long-term environmental resilience and responsible tourism management. Samosir should therefore develop its sustainable tourism management, from operationalizing sustainability in daily practices to effective marketing. The discussion above shows that Samosir still faces a crucial issue related to sustainable tourism development. Environmental stewardship, socio-economic impacts, cultural preservation, and their sustainable management are not aligned.

4.2.2 Designing Sustainable and Inclusive Community Tourism with Design Thinking

The Design Thinking framework adopted in this study provides a practical response to Samosir's tourism development challenge. Through an interactive process that moves from examining tourists' behavior and requirements to iterative prototyping, it shows how Samosir, as a rural destination, can shift from reactive to proactive tourism management. Most importantly, this approach integrates sustainability and inclusivity at the conceptual stage and in operational management. This enables more informed tourism product creation and the provision of sustainable and inclusive tourism options for travelers. In conclusion, Design Thinking serves as a strategic intervention tool to foster socially responsible and environmentally sustainable community tourism development.

4.2.3 Community Tourism Sustainability and Inclusion Pathways

While tourists value authentic interactions with local communities, structured opportunities for community-led engagement are hardly available. Activities such as cooking classes, culinary events, weaving workshops, or guided storytelling walks within villages are rarely encountered. Furthermore, the limited representation of women and youth as facilitators suggested that tourism's benefits were unevenly distributed. As Scheyvens and Biddulph [16] highlight, inclusive tourism requires more than job creation or participation; it requires community agency in designing and managing the tourist experience.

Collectively, the findings show a gap between young domestic travelers' values and the operational reality of community tourism in Samosir. While demand for sustainable, immersive, and inclusive experiences is strong, Samosir lacks the management readiness, product design capabilities, and infrastructure to respond effectively. Destinations should understand that future tourism competitiveness depends on experiential differentiation rather than physical assets alone (Barrera-Martínez et al., 2025; Ketter, 2020). Destinations should also acknowledge that sustainable tourism is no longer just an ethical choice but a necessity and an opportunity in the global tourism industry (Global Sustainable Tourism Council, 2025). For Samosir, the challenge is not a lack of cultural or natural resources, but the absence of a coherent design strategy that integrates community empowerment and sustainability systems, supported by strong and effective governance (public and private).

This study was conducted in Samosir and targeted domestic tourists. In the Asia Pacific region, Indonesia is leading the shift toward sustainable tourism, giving it a prime opportunity to reimagine and redesign the

tourism ecosystem in line with sustainable development. The most commonly reported challenges are higher costs and limited availability, particularly in developed countries such as Australia and Japan (Global Sustainable Tourism Council, 2025; Kakazu, 2011). However, this study emphasizes that sustainable tourism initiatives, particularly in rural settings, do not always require extensive effort or investment. Many tourism village destinations can adopt a localized, context-rooted strategy affordably. By using an effective approach to designing community tourism products, it is possible to develop a contextualized and practical strategy.

6. Conclusions

This study brings tourism sustainability and inclusion, a global concern, into a local-level discussion in an emerging destination such as Indonesia. The discussion shows promising potential for community tourism development in rural areas of Samosir. The findings reveal that most young domestic tourists seek a unique, local, authentic, and responsible experience and understand the principles of sustainable and inclusive community tourism. However, Samosir should proactively strengthen tourism sustainability, especially through institutionalized tourism management and balanced impacts on the economy, culture, and environment. Using the Design Thinking methodology, this study effectively designed a new community tourism experience in Samosir by capturing targeted tourists' requirements and developing ideas into a practical prototype. This study also highlights community tourism's potential as an alternative development strategy. The practical solutions generated from this study, including the culinary event in Samosir, convey how tourism can be redesigned to preserve culture, create complementary income for community members, and ultimately promote environmentally responsible practices among tourists and hosts. Regarding research limitations, future research should address sustainable and inclusive community tourism development and applications of Design Thinking in other destinations with similar characteristics or development plans. This study can be further advanced by increasing the sample size and conducting the Test phase.

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8. Conflict of Interest

The authors declare no conflict of interest.

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