The Business Of Sustainable Tourism: University Programs Empowering Local Enterprises In East Lombok

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***Abstract**.*

This study documents an international community service program conducted in Teluk Jekung and Maringkik Island, East Lombok, Indonesia, through collaboration between Universiti Sains Malaysia (USM) and University of Mataram. The initiative focused on promoting sustainable tourism practices among local communities, including boat operators (Boatman), small medium business owners (UMKM), and island residents. Using a participatory approach, the program combined on-site training, stakeholder discussions, and practical solutions for environmental and economic challenges. Results demonstrated increased community awareness of sustainable tourism principles, improved hospitality skills among Boatman groups, and enhanced business strategies for UMKM. The study highlights the value of international academic partnerships in addressing local development needs while providing recommendations for sustaining long-term impact.

***Keywords**: Sustainable tourism;community empowerment; academic collaboration; small island development and small medium enterprises.*

I.   INTRODUCTION

In an era of rapid globalization, the concept of sustainable tourism has become increasingly crucial for destination management worldwide (UNEP & UNWTO, 2019). This approach represents a fundamental shift from traditional tourism models that prioritized visitor numbers over environmental and socio-cultural impacts (Sharpley, 2020). Sustainable tourism demands a careful balance between economic development, environmental conservation, and cultural preservation - a challenge particularly acute in developing nations like Indonesia (Hall, 2019).The Indonesian archipelago, with its 17,000 islands and extensive coastal resources, faces unique challenges in tourism development (Ministry of Tourism, 2022). While tourism offers significant economic opportunities for rural communities, unmanaged growth frequently leads to environmental degradation, cultural erosion, and economic leakage that undermine long-term sustainability (Cole, 2018). This paradox is especially evident in ecologically sensitive areas like Teluk Jekung and Maringkik Island, where fragile marine ecosystems coexist with communities increasingly dependent on tourism (Cater & Cater, 2020).Community-based tourism has emerged as a promising solution to these challenges, emphasizing local ownership and participatory decision-making (Goodwin & Santilli, 2009). Unlike conventional top-down approaches, this model positions community members as active architects of tourism development rather than passive beneficiaries (Blackstock, 2005). When implemented effectively, it can deliver triple-bottom-line benefits: protecting natural resources, preserving cultural heritage, and generating sustainable livelihoods (Moscardo, 2021).

The international community service program "Sustainable Tourism in Teluk Jekung and Maringkik Island" represents a strategic response to these challenges. This collaborative initiative between Universiti Sains Malaysia (USM) and the University of Mataram was conducted on February 26, 2025, with three primary objectives. First, to enhance hospitality skills among Boatman groups in Tanjung Luar - traditional fishermen transitioning into tourism service providers. Second, to promote sustainable fishing practices and waste management solutions among Maringkik Island's 600 families. Third, to strengthen the competitiveness of local small businesses (UMKM) at Pink Beach through sustainable product development

and marketing strategies.The program's design reflects contemporary sustainable tourism principles aligned with multiple United Nations Sustainable Development Goals (SDGs). Most notably, it contributes to SDG 8 (Decent Work and Economic Growth) through UMKM development, SDG 11 (Sustainable Cities and Communities) via waste management initiatives, and SDG 14 (Life Below Water) through marine conservation efforts (United Nations, 2015). This integrated approach addresses the interconnected nature of sustainability challenges in coastal communities (Gössling, 2021).

Educational components of the program introduced various aspects of sustainable tourism, including:

1. Waste management systems tailored to island ecosystems
2. Natural resource conservation techniques
3. Local wisdom-based marketing strategies
4. Sustainable fishing practices to replace destructive methods

The active participation of community members throughout the program ensured that solutions were culturally appropriate and practically implementable (Dangi & Jamal, 2016). This participatory methodology is particularly valuable in rural contexts where externally imposed solutions often fail due to cultural mismatch or lack of local ownership (Lapeyre, 2019).As a university-community partnership, the initiative also provides valuable insights into the evolving role of academic institutions in sustainable development (Higgins-Desbiolles et al., 2019). The collaboration between Malaysian and Indonesian partners represents a model for South-South cooperation in addressing shared sustainability challenges (Chok et al., 2021). Moreover, the program's emphasis on combining global sustainability principles with local ecological knowledge offers replicable methodologies for similar coastal communities (Stronza et al., 2019).This article documents the program's background, implementation processes, outcomes, and impacts to serve three key purposes. First, as an accountability mechanism for stakeholders. Second, as a learning resource for similar initiatives. Third, as a foundation for developing more comprehensive, long-term interventions in the region. The findings will be particularly valuable for policymakers, community leaders, and academics working at the intersection of tourism and sustainable development.

II. THEORETICAL FRAMEWORK

The program's design and implementation were informed by an integrated theoretical framework combining contemporary perspectives on sustainable tourism development, community empowerment, and participatory learning. These theories provided a robust foundation for addressing the complex socio-economic and environmental challenges in Teluk Jekung and Maringkik Island.Community-Based Tourism (CBT) served as the foundational approach, emphasizing the central role of local communities in tourism development. As argued by Dangi and Jamal (2016), effective CBT initiatives must balance economic benefits with cultural preservation and environmental conservation. The community service program operationalized this through participatory workshops where community members actively shaped tourism strategies rather than passively receiving external solutions. This approach aligns with contemporary critiques of conventional tourism models that often marginalize local voices (Giampiccoli & Saayman, 2018). The engagement with Boatman groups and UMKM specifically addressed power asymmetries in tourism development by creating platforms for knowledge co-creation.Experiential learning theory, as refined by Morris (2019), provided the pedagogical framework for capacity-building activities. The program moved beyond traditional classroom instruction by embedding learning in real-world contexts.

Boatman trainees, for instance, practiced hospitality skills through simulated tourist interactions at actual docking sites, while UMKM owners developed marketing materials using their own products. This approach recognized the importance of situated learning in adult education, particularly for communities with varying formal education levels (Fenwick, 2016). Post-activity reflection sessions enabled participants to connect practical experiences with broader concepts of sustainable tourism.The Sustainable Livelihoods Approach (SLA) offered a comprehensive lens to examine the interconnected challenges facing coastal communities. Recent adaptations of SLA by Tao and Wall (2019) emphasize the dynamic nature of livelihood assets in tourism contexts. This community service addressed SLA through multi-dimensional

interventions: improving human capital via skills training, strengthening social capital through producer networks, enhancing natural capital with conservation initiatives, developing physical capital via infrastructure improvements, and expanding financial capital through market access programs. This holistic perspective proved particularly valuable in addressing the complex trade-offs between tourism development and traditional livelihoods (Su et al., 2021).

Social Exchange Theory (SET) helped explain participation dynamics and community responses to tourism initiatives. Contemporary applications of SET in community tourism (Nunkoo & Ramkissoon, 2016) highlight how perceived benefits must outweigh costs to ensure sustained engagement. In this program, transparent discussions about tourism revenues and environmental impacts helped build trust between academic partners and community members. The theory also informed our strategy for addressing initial resistance by demonstrating tangible short-term benefits alongside long-term sustainability goals.These theoretical perspectives were carefully integrated to create a coherent framework for intervention. The CBT approach ensured community ownership, experiential learning facilitated effective knowledge transfer, SLA provided a holistic development perspective, and SET helped navigate implementation challenges. This theoretical integration responds to recent calls in sustainable tourism literature for more nuanced, context-sensitive frameworks (Hall, 2019), while providing practical guidance for similar initiatives in coastal communities throughout Southeast Asia.

III.   METHODS

The international community service program "Sustainable Tourism in Teluk Jekung and Maringkik Island" was implemented through a carefully structured process that combined academic planning with community participation. The methodology was designed to maximize engagement across three key stakeholder groups - the Boatman collective, Maringkik Island residents, and UMKM operators at Pink Beach - while ensuring measurable outcomes in sustainable tourism development (Blackstock, 2005). Preparation for the program began in January 2025 through intensive coordination between the Faculty of Economics and Business at University of Mataram and Universiti Sains Malaysia. Initial planning meetings established the program framework, with particular attention given to logistics and community needs assessment. The organizing committee worked closely with local authorities on Maringkik Island to ensure the activities would address genuine priorities while respecting cultural contexts. This preparatory phase included arranging transportation between the three implementation sites and developing culturally appropriate training materials that would resonate with participants from different backgrounds (Chambers, 2008).Implementation occurred on February 26, 2025, beginning with an opening ceremony led by Dr. Lalu M. Furkan, Vice Dean for Student Affairs and Alumni at University of Mataram. The first activity at Tanjung Luar engaged the Boatman group in discussions about enhancing their hospitality skills while maintaining sustainable fishing practices. As community members who had transitioned from traditional fishermen to tourism guides since 2010, they explored ways to balance these dual roles while protecting marine ecosystems.

The program then moved to Maringkik Island, where approximately 600 families participated in workshops addressing pressing local concerns including coral reef conservation, waste management, and clean water solutions. These sessions blended academic expertise with traditional ecological knowledge, particularly regarding sustainable alternatives to destructive fishing practices like fish bombing (Stronza, 2018). The final session at Pink Beach focused on business development for UMKM operators, with specific attention to product improvement, lobster feed production, and eco-friendly packaging solutions suitable for tourism markets.Throughout implementation, the evaluation process documented both qualitative and quantitative indicators of success. Facilitators recorded levels of community engagement during workshops and collected immediate feedback through structured discussions. The assessment emphasized tangible outcomes including commitments to coral reef restoration, adoption of hospitality standards among Boatman groups, and implementation of sustainable business practices by UMKM operators. This approach ensured the program's relevance to local development priorities while creating a foundation for long-term impact monitoring (Sharpley, 2020). By combining structured academic frameworks with flexible community

participation, the methodology successfully bridged theoretical concepts of sustainable tourism with practical, locally grounded solutions.

IV.   RESULTS AND DISCUSSION

The international community service program "Sustainable Tourism in Teluk Jekung and Maringkik Island" successfully achieved its objectives through collaborative engagement between students, academics, international university partners, and local community members. The program's outcomes demonstrate significant progress in sustainable tourism awareness, community empowerment, and environmental conservation, while also revealing areas requiring further intervention. These results will be discussed in relation to contemporary sustainable tourism literature and community development frameworks.

Enhanced Community Awareness of Sustainable Tourism

The educational sessions conducted by academics from Universiti Sains Malaysia and University of Mataram effectively introduced sustainable tourism concepts to residents. Participants gained new understanding about balancing tourism development with environmental preservation, particularly during the discussions held on Maringkik Island. This awareness-raising component proved crucial, as many community members had previously viewed tourism primarily as an economic opportunity without fully considering its environmental impacts (Sharpley, 2020). The workshops helped shift this perspective by demonstrating how sustainable practices could lead to long-term benefits for both the ecosystem and local economy.The program's success in raising awareness aligns with findings by Hall (2019), who emphasizes that meaningful change in tourism destinations begins with conceptual understanding before practical implementation. Particularly noteworthy was the community's receptiveness to discussions about carrying capacity and waste management, topics that had previously received little attention in local tourism planning. This suggests that academic-community partnerships can play a vital role in bridging knowledge gaps in rural tourism areas (Dangi & Jamal, 2016).

Empowerment of Boatman as Tourism Stakeholders

The engagement with Boatman groups at Tanjung Luar produced tangible outcomes in professional development and environmental stewardship. These fishermen-turned-guides demonstrated improved understanding of hospitality principles and their role in sustainable marine tourism. The discussions yielded concrete suggestions for enhancing service quality while protecting the marine environment that sustains their livelihoods.This empowerment of local tourism intermediaries supports Stronza's (2018) argument that community-based tourism succeeds when it builds on existing livelihood systems rather than attempting to replace them. The Boatman's dual role as both fishermen and guides positions them uniquely to promote sustainable practices to visitors while monitoring environmental conditions. Their commitment to reducing destructive fishing practices following the workshop indicates the potential for peer-to-peer knowledge transfer within the community (Cohen et al., 2022).

Strengthening Local Economy Through UMKM Development

The business development sessions at Pink Beach provided UMKM owners with practical strategies for enhancing their tourism products and services. Participants gained insights into local wisdom-based marketing approaches and product improvement techniques, particularly regarding value-added offerings like lobster feed. This economic component of the program addressed a critical need identified in pre-program consultations, as many small businesses had struggled to fully capitalize on tourism opportunities. These results corroborate Mitchell's (2012) findings about the importance of adapting business development strategies to local contexts in small island destinations. The focus on lobster feed production represents an innovative approach to creating tourism-linked products that build on existing fishing activities. However, ongoing challenges with digital marketing infrastructure suggest the need for continued support in this area, consistent with observations by Sigala (2022) about technology gaps in rural tourism enterprises.

Environmental Solutions and Conservation Initiatives

The program facilitated important discussions about pressing environmental issues, particularly waste management and clean water access on Maringkik Island. Community members and academics collaboratively identified potential solutions, including coral reef restoration projects and appropriate technologies for water purification. These discussions revealed both the urgency of environmental challenges and the community's willingness to address them through collective action.The emphasis on coral reef conservation aligns with global priorities for marine tourism destinations (Hughes et al., 2023). The proposed solutions demonstrate how academic knowledge can combine with local expertise to develop context-appropriate interventions. However, the discussions also highlighted the need for sustained technical and financial support to implement these solutions effectively, a challenge noted in many community-based conservation initiatives (Bennett et al., 2021).

Integrated Impacts and Long-Term Sustainability

The program's most significant achievement was its demonstration of how sustainable tourism principles can be practically applied in rural island communities. By addressing environmental, economic, and social dimensions simultaneously, the initiative provided a model for holistic community development through tourism (UNEP & UNWTO, 2019). The active participation of community members throughout all stages suggests strong potential for long-term impact.However, the program also revealed several challenges that must be addressed to ensure sustainability. These include the need for ongoing mentorship, improved infrastructure (particularly for waste management and water access), and mechanisms to maintain stakeholder engagement beyond the initial enthusiasm generated by the program. These findings echo observations by Jamal and Camargo (2021) about the importance of long-term commitment in community tourism projects.

V.   RECOMMENDATIONS

To ensure the long-term sustainability and scalability of the program's achievements, several strategic interventions should be implemented. These recommendations address the key challenges identified

during program implementation while building upon its demonstrated successes.First, establishing a structured mentorship program would provide crucial ongoing support to community participants. This initiative should pair academics from USM and University of Mataram with local leaders through regular virtual check-ins and quarterly on-site visits. The mentorship framework should include an annual refresher workshop to reinforce key concepts and introduce advanced topics as participants' skills develop. Such sustained engagement would help maintain momentum and allow for adaptive management of the initiative as challenges emerge. The mentorship program could be complemented by training select community members as peer educators, creating a multiplier effect that extends the program's reach within the local area. Additionally, implementing phased environmental solutions would translate workshop discussions into concrete actions. A three-year action plan should prioritize the most pressing ecological concerns identified by community members, beginning with a coral reef restoration pilot project in the first year.

This should be followed by appropriate technology solutions for clean water access in year two, and establishment of a community-managed waste management system in year three. Each phase requires clear implementation guidelines, measurable outcomes, and dedicated funding mechanisms. Engaging local youth in monitoring and maintenance roles would ensure community ownership while building long-term environmental stewardship capacity. These interventions should be designed with flexibility to incorporate traditional ecological knowledge alongside scientific approaches.Moreover, enhancing digital infrastructure and e-commerce capabilities would address a critical barrier to UMKM growth. This requires a multi-pronged approach including partnerships with telecommunications providers to improve internet connectivity, development of offline-capable business tools, and specialized training on low-bandwidth digital marketing strategies. Creating a shared online marketplace for local products would help overcome individual UMKM limitations while promoting the destination collectively. Special attention should be given to developing mobile-friendly solutions that accommodate the prevalent use of smartphones in the community. These technological interventions must be accompanied by ongoing digital literacy programs to ensure equitable access and utilization across different demographic groups.Furthermore, strengthening policy linkages would embed the program's principles in local governance structures. This involves formalizing partnerships with village and district tourism offices to ensure community priorities are reflected in regional development plans. Developing policy briefs based on program outcomes can inform decision-makers about effective community-based tourism models.

Establishing permanent community representation in tourism governance bodies would provide a sustained voice for local stakeholders in destination management decisions. These institutional connections help transition the program from a standalone initiative to an integrated component of regional sustainable development strategy.Finally, implementing a comprehensive monitoring and evaluation framework would provide critical data for continuous improvement. This system should emphasize community-managed data collection to build local ownership of the evaluation process. Annual impact assessments conducted jointly with participants would capture both quantitative metrics and qualitative insights about the program's evolving effects. Documenting case studies of successful implementations can provide models for replication while demonstrating the program's value to funders and policymakers. The evaluation framework should balance standardized indicators with flexible measures that capture context-specific outcomes important to community members.

VI.   CONCLUSION

The "Sustainable Tourism in Teluk Jekung and Maringkik Island" program represents a successful model of international academic-community collaboration that achieved measurable impacts across multiple dimensions of sustainable development. Through its integrated approach combining education, practical training, and participatory planning, the initiative demonstrated how universities can serve as catalysts for sustainable tourism transformation in rural coastal communities. The program's most significant accomplishment was its ability to bridge theoretical concepts of sustainable tourism with practical, locally grounded applications that resonated with community members.Several key factors contributed to the program's effectiveness. First, the careful preparation phase ensured activities were culturally appropriate

and aligned with genuine community needs. Second, the implementation design that engaged three distinct stakeholder groups (Boatman, island residents, and UMKM owners) through tailored interventions addressed the destination's holistic development requirements. Third, the emphasis on two-way knowledge exchange - where academics shared sustainable tourism principles while learning from local ecological knowledge - created a mutually beneficial learning environment.

The program outcomes substantiate contemporary theories about community-based tourism development, particularly regarding the importance of local ownership (Dangi & Jamal, 2016) and the value of experiential learning approaches (Morris, 2020). The immediate behavioral changes observed, such as Boatman adopting improved hospitality practices and UMKM revising their product offerings, suggest the program successfully moved beyond awareness-raising to inspire concrete action. Furthermore, the collaborative identification of environmental solutions demonstrates how academic-community partnerships can generate context-specific innovations that address pressing sustainability challenges.However, the program also revealed several limitations that must be acknowledged. The short duration constrained the depth of training possible, particularly for complex topics like digital marketing. Infrastructure limitations, especially regarding internet connectivity and waste management systems, emerged as persistent barriers to implementing some proposed solutions. Additionally, while the program achieved excellent initial engagement, questions remain about how to sustain momentum beyond the immediate post-program period. These limitations highlight the need for longer-term interventions that build on this foundational work.

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