

EMPOWERING SUSTAINABLE TOURISM VILLAGES IN LOMBOK: A GREEN ECONOMY FRAMEWORK FOR COMMUNITY-BASED HOMESTAY MANAGEMENT

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Abstract

Lombok's rapid emergence as a global tourism hub introduces significant environmental pressures and risks of socio-economic disparity within its rural communities. While tourism villages (Desa Wisata) offer a strategic pathway for localized development, grassroots homestay operators frequently struggle with inadequate hospitality standards, poor waste management, and weak institutional governance. This international community service program addresses these critical bottlenecks by implementing a comprehensive Green Economy Framework for community-based homestay management in selected emerging tourism villages across Lombok. Adopting a participatory action learning methodology, the program engaged multi-stakeholder collaborations through integrated diagnostic focus groups, technical capacity building, and long-term onsite mentorship. The intervention focused on three strategic pillars: eco-hospitality operations (including solid waste segregation and greywater bio-filtration), digital green marketing on global OTA platforms, and structural financial governance integrated with Village-Owned Enterprises (BUMDes) and local tourism groups (Pokdarwis). The results demonstrated a profound transformation: homestay plastic waste was reduced by up to 87.5%, and properties successfully achieved a 30% reduction in energy costs by switching to energy-efficient systems. Furthermore, the strategic branding of these accommodations as Eco-Cultural Homestays generated a 42% increase in average occupancy rates. Most importantly, the program established a transparent, circular revenue-sharing model that channels 10% of gross booking revenues directly back into the village environmental fund. This initiative proves that synchronizing eco-friendly operational standards with robust village institutional governance successfully creates a highly resilient, self-sustaining circular economy that safeguards local ecosystems while boosting global tourist engagement.

Keywords: Community-Based Tourism, Green Economy, Homestay Management, Sustainable Tourism, Tourism Village.

INTRODUCTION

Lombok has solidified its position as one of Indonesia's premier international destinations, catalyzed by the development of the Mandalika Special Economic Zone and global events. However, this massive infrastructure push introduces a high risk of overtourism, structural economic disparities, and ecological degradation if not balanced with grassroots-level interventions (Pramono, 2026). To prevent structural dependencies where local communities act merely as passive observers, the Indonesian government has prioritized the development of Desa Wisata (Tourism Villages) to distribute economic benefits directly to rural households (Sayuti, 2023).

Among the various sub-sectors within tourism villages, homestays represent the most strategic asset for Community-Based Tourism (CBT). Unlike large international resorts, homestays keep capital within the local ecosystem, foster authentic cultural exchange, and lower carbon footprints per visitor (Putri et al., 2022). Unfortunately, current practices in many Lombok tourism villages show significant bottlenecks. Many local operators lack institutional capacity, standard operational procedures (SOPs) for hospitality, and long-term financial literacy. Moreover, waste management crises, high energy consumption from conventional grids, and low integration of local agricultural products undermine the "sustainable" label of these villages (Karjaya, 2026).

To solve these compounding problems, this international community service program introduces a Green Economy Framework for Community-Based Homestay Management. A green economy in tourism minimizes environmental risks, advances resource efficiency, and drives social inclusivity. Optimizing this framework requires strengthening grassroot institutions, specifically through *Kelompok Sadar Wisata* (Pokdarwis) and *Badan Usaha Milik Desa* (BUMDes). As emphasized by Soelarso et al. (2024), the operational capability and innovative strategies of village-owned enterprises (BUMDes) serve as the fundamental backbone for optimizing local economies and managing community assets effectively. Therefore, this program aims to empower homestay operators in selected Lombok tourism villages by upgrading their capabilities in eco-friendly hospitality practices, digital green-marketing, and robust institutional financial governance.

RESEARCH METHODS

This international community engagement program was executed using a participatory action learning approach over a one-week period involving multi-stakeholder collaborations (academia, local government, and village communities). The program took place across selected emerging tourism villages in Lombok, focusing on villages experiencing high traffic but low resource-retention rates.

The empowerment methodology was executed sequentially through three integrated phases, beginning with a diagnostic assessment in the first phase, where the team conducted Focus Group Discussions (FGDs) with Pokdarwis managers, BUMDes leaders, and homestay owners to map immediate infrastructural and capacity gaps. In the second phase, the core program delivered capacity building and technical training structured around three main modules: eco-hospitality and waste management focusing on organic composting, greywater filtering, and plastic-elimination protocols; digital green marketing to equip youth and operators with the skills to market eco-homestays on global Online Travel Agency (OTA) platforms using sustainability values as their unique selling proposition (USP); and financial governance to design a transparent profit-sharing model between operators and village institutions. Finally, the third phase involved mentorship and participatory auditing, during which the team provided onsite assistance by installing physical eco-kits, such as waste segregation bins and energy-saving LED protocols, alongside establishing standardized green service guidelines. The overall evaluation was systematically carried out using a pre-test and post-test mechanism combined with a green homestay compliance checklist.

RESULTS AND DISCUSSION

The implementation of the program yielded measurable advancements across the environmental, operational, and institutional dimensions of homestay management. Before the intervention, 85% of homestay operators managed their properties informally without environmental guidelines or digital systems.

In terms of environmental transformation through the implementation of eco-hospitality, the program introduced a structured operational framework for green homestays via technical workshops. Through this initiative, operators were systematically trained to separate solid waste directly at the source and channel organic waste to village composting centers to reduce environmental degradation. The measurable outcomes of this environmental shift, detailing the

shifts in waste production, energy efficiency, and water management, are comprehensively presented in Table 1.

Table 1. Environmental Transformation: Implementing Eco-Hospitality

Indicators	Pre-Intervention	Post-Intervention	Environmental Impact
Plastic Waste Disposed	2.4 kg / room / week	0.3 kg / room / week	Reduced inorganic load to local landfills
Energy Sourcing	Conventional incandescent bulbs	100% LED + Smart usage sensors	30% reduction in monthly electricity costs
Water Management	Untreated greywater runoff	Bio-filtration sand pits	Safe groundwater recharge for village agriculture

Source: Results of the community service program, 2026.

By shifting to eco-friendly amenities (e.g., bamboo toothbrushes, refillable glass dispensers, locally made organic soaps), homestays minimized plastic waste while supporting local micro-enterprises. Operational Upgrades and Digital Green Marketing. To capture the growing market of environmentally conscious travelers, the program set up listings for 25 local homestays on global booking platforms. The properties were branded specifically as Eco-Cultural Homestays. The training enabled local youth to manage inquiries, maintain high response rates, and document guest feedback. Six months post-intervention, the average occupancy rate across the targeted homestays increased by 42%, stabilizing household incomes outside of traditional farming cycles.

Institutional Alignment and Circular Economy. The most critical aspect of sustainability lies in institutional resilience. The program successfully integrated homestay operators into a standardized cooperative model managed jointly by Pokdarwis and BUMDes. The structural alignment between homestay operators and village institutions under the BUMDes cooperative model directly mirrors the institutional-based management frameworks identified by Kurniati et al. (2019). Their research emphasizes that robust institutional governance and resource management are critical prerequisites for micro-scale enterprises to achieve a sustainable competitive advantage and prevent capital flight within regional development.

The distribution of economic returns follows a strict circular model through a structured revenue-sharing mechanism. Under this system, 75% of the direct gross revenue is retained by the individual homestay host, while 15% is channeled to BUMDes for collective marketing, maintenance funds, and booking system upkeep. The remaining 10% is contributed directly to the Village Environmental and Waste Management Fund.

This revenue-sharing mechanism ensures that every tourist booking contributes directly to preserving the natural beauty of the village, creating a self-sustaining financial loop. Local agricultural produce was also integrated into the breakfast menus, maximizing economic multipliers within the village borders (Zitri et al., 2026).

CONCLUSION

Empowering sustainable tourism villages in Lombok requires shifting from quantitative mass-tourism to qualitative, community-driven eco-tourism. This community service program demonstrates that applying a Green Economy Framework to community-based homestay management significantly improves ecological habits, upgrades digital operational capabilities, and lifts household incomes. Integrating homestay operations with robust village institutions like BUMDes and Pokdarwis creates a transparent, circular economy that preserves local assets while boosting global market competitiveness. Future initiatives should focus on scaling up small-scale renewable energy systems (such as solar water heaters) and creating a unified digital network for all green tourism villages across West Nusa Tenggara.

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