

# Sustainable Innovation of Low-Waste Homestay Amenities Packaging Guided by the Global Code of Ethics for Tourism in Bantar Agung Village, Sindangwangi District, Majalengka Regency

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## Abstract.

*The development of tourist villages in Indonesia has led to an increase in the number of homestays as community-based accommodations that contribute to the local economy. However, the use of single-use packaged amenities in homestays has the potential to increase plastic waste and is not yet fully aligned with the principles of sustainable tourism. This community service activity aims to develop innovative low-waste packaging designs for homestay amenities based on the Global Code of Ethics for Tourism issued by the United Nations World Tourism Organization. The activity was carried out in Bantar Agung Tourism Village, Sindang Wangi District, Majalengka Regency, which has 120 homestays as well as natural and cultural tourism potential that has been developing since 2016. The implementation methods included observation, education on sustainable tourism and green hospitality concepts, eco-friendly packaging design workshops, and participatory-based assistance together with the tourism awareness group (Pokdarwis) and homestay managers. The expected outcomes are prototypes of reusable or biodegradable amenity packaging, increased community understanding of environmentally friendly homestay management, and strengthening the image of a sustainable tourism village. This program is expected to reduce the use of single-use plastics, improve homestay service quality, and support environmental conservation and the sustainable competitiveness of the tourism village.*

**Keywords:** Tourism village, homestay, low-waste amenity packaging.

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## I. INTRODUCTION

The development of tourism villages in Indonesia has encouraged the growth of homestays as community-based accommodation facilities that support the local economy. Homestays not only serve as places to stay, but also form an integral part of the tourism experience by reflecting the values, environment, and character of the local community. Nevertheless, one service aspect that is often overlooked is the use of amenities such as soap, shampoo, toothbrushes, and other toiletries, which are typically provided in single-use packaging and thus have the potential to increase plastic waste. From the perspective of sustainable tourism, the management of accommodation facilities must consider the balance between economic, social, and environmental aspects. This concept aligns with the triple bottom line principle, namely economic sustainability, environmental conservation, and the social welfare of the local community. The accommodation industry, including homestays, contributes to waste generation, energy consumption, and resource use, thereby necessitating innovations in more environmentally friendly operations.

These principles are in line with the guidelines of the United Nations World Tourism Organization through the Global Code of Ethics for Tourism, which emphasizes that tourism development must minimize negative environmental impacts while providing long-term benefits for local communities. Research shows that reducing single-use plastics through the use of refillable amenities, environmentally friendly packaging, and guest education is an effective component of green tourism in reducing the environmental impact of hotel operations[1].

The implementation of green hotel practices has been proven to support the development of sustainable tourism, although challenges remain in terms of understanding and consistency at the operational level. This indicates that education-based innovation and community assistance are important factors for the successful implementation of environmentally friendly concepts in tourism accommodation [2].

Other studies have shown that the accommodation sector makes a significant contribution to resource consumption and waste production, making innovation in product and packaging design based on

sustainability one of the key strategies for enhancing the competitiveness of tourist destinations while maintaining environmental quality [3].

In the context of tourism villages, innovation in amenity packaging serves not only to reduce waste, but also has educational value for tourists and can become part of the destination's identity. The green innovation approach in tourism product design has proven effective in enhancing product value while supporting sustainable destination branding [4].

Bantar Agung Tourism Village is known for its clean and cool environment, making it an ideal place for detoxification from urban air pollution. For tourists living in cities, a visit to Bantar Agung Tourism Village provides a suitable opportunity for relaxation. The village offers destinations that are perfect for enjoying the fresh air, especially in the mornings and evenings. Visitors can also camp overnight in the forest areas within Bantar Agung Village. The tourism village is managed by Pokdarwis Bantar Agung.

According to data from the Bantar Agung Village Government (Pemdes), Bantar Agung Tourism Village has 120 homestays. However, the management of amenities still relies on conventional packaging that does not yet consider waste minimization and has not been utilized as an environmental education medium for tourists. This condition indicates a need for intervention through community service activities in the form of innovative, eco-friendly, and economical amenity packaging designs that adhere to the principles of the Global Code of Ethics for Tourism [5].

Through this community service initiative, the service team aims to introduce innovative, low-waste amenity packaging designs for homestays using a participatory community approach. This innovation is expected to improve the quality of homestay services, strengthen the image of sustainable tourism villages, and contribute to ongoing environmental conservation.

Bantar Agung Tourism Village faces several challenges, including the continued use of single-use plastic packaging for homestay amenities (such as sachets of soap and shampoo), homestay operators' limited understanding of environmentally friendly packaging concepts, the absence of local village identity in amenity products, and the lack of utilization of amenities as a medium for environmental education for tourists. Based on these conditions and identified issues, the innovation of low-waste homestay amenity packaging grounded in the principles of the Global Code of Ethics for Tourism emerges as a strategic solution to support more environmentally friendly and sustainable homestay management in Bantar Agung Tourism Village. The implementation of reusable and biodegradable packaging not only contributes to reducing plastic waste but also enhances the operational efficiency of homestays and provides environmental education value to visitors. Through this community engagement initiative, it is expected that homestay operators will be able to understand and practically implement the concept of green hospitality in their daily operations. Furthermore, innovative amenity packaging that reflects the local identity of the tourism village can strengthen Bantar Agung's image as a sustainable destination aligned with the principles of environmental, social, and economic responsibility.

## II. METHODS

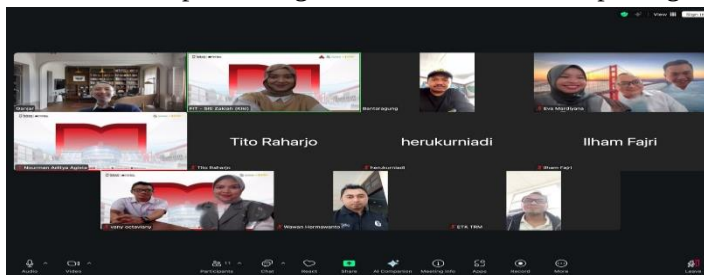
Methods of Implementation and Stages of Community Service Activities for "Innovation of Low-Waste Homestay Amenity Packaging Based on the Global Code of Ethics for Tourism in Bantar Agung Village, Sindang Wangi District, Majalengka Regency":

1. Coordination with village government, Pokdarwis, and homestay managers; determination of program participants; preparation of schedules and training requirements.
2. Field surveys, interviews with homestay managers, documentation of amenity use, and current packaging types.
3. Lectures, interactive discussions, and delivery of materials on sustainable tourism, green hospitality, and the principles of the Global Code of Ethics for Tourism.
4. Demonstration and practice of using reusable and biodegradable packaging; introduction to environmentally friendly materials.
5. Simulation of refillable amenity use, assistance in implementing packaging in homestays, and initial monitoring.

6. Preparation of a simple guidebook on standards for the use of low-waste amenity packaging.
7. Evaluation through discussions, participant comprehension questionnaires, and assessment of changes in amenity packaging use.
8. Documentation of activities, preparation of community service reports, and publication of activity results.

### III. RESULT AND DISCUSSION

The community service activity entitled “Innovation in Low-Waste Homestay Amenities Packaging Based on the Global Code of Ethics for Tourism” was carried out through direct, face-to-face engagement. In the initial stage, a preliminary discussion was conducted online via Zoom with the management team of Bantar Agung Tourism Village. This discussion aimed to identify the needs, challenges, and potential of the tourism village that could be developed through innovative, low-waste packaging of homestay amenities.



**Fig 1. Online discussion with the management of Bantar Agung Tourism Village**

This preliminary discussion served as an initial coordination platform between the community service team and the tourism village management to establish a shared understanding regarding the objectives, scope, and form of the program to be implemented. The primary focus of development was directed towards optimizing the management of amenities used by homestays through the adoption of reusable and biodegradable packaging, the introduction of environmentally friendly materials, and the promotion of more effective and sustainable tourism village management.

The subsequent stage was the implementation of the community service program in Bantar Agung Tourism Village. This activity was attended in person by the head of management and homestay managers of Bantar Agung Tourism Village, all of whom play significant roles in the management and development of the tourism village. The target community involved in this activity consisted of 50 participants. During the community service implementation, the team conducted a socialization session on Sustainable Tourism through interactive discussions and delivered materials on sustainable tourism, green hospitality, and the principles of the Global Code of Ethics for Tourism. The partners actively participated in the socialization and engaged in discussions regarding the application of sustainable concepts in homestays.

The activity also included Training on Environmentally Friendly Amenities Packaging, featuring demonstrations and hands-on practice with reusable and biodegradable packaging, as well as the introduction of eco-friendly materials. The community service team provided practical training on cleaning reusable containers in accordance with health standards, such as sterilization techniques for bottles before refilling, to prevent bacterial contamination a common concern among homestay guests. During this session, the partners practiced using environmentally friendly packaging and experimented with its application according to their respective homestay conditions.



**Fig 2. Display of Low-Waste Homestay Amenities Packaging Innovation**

The display of low-waste homestay amenities packaging innovation is designed to reflect the overall character of the tourism village as a destination based on local wisdom. During the implementation of this community service activity, materials and guidance were provided on the practice of using reusable and biodegradable packaging, as well as the introduction of environmentally friendly materials. The community service team also conducted practical training on cleaning reusable containers in accordance with health standards, such as sterilization techniques for bottles prior to refilling, to prevent bacterial contamination, which is a common concern among homestay guests.



**Fig 3. Explanation and Discussion on the Use of Reusable and Biodegradable Packaging**

Through this session, participants were given the opportunity to ask questions regarding environmentally friendly materials and to support the management of the tourism village in a more effective and sustainable manner.

The final activity in the community service program was the handover of amenities packaging designs and the presentation of environmentally friendly bottles as reusable containers to the management of Bantar Agung Tourism Village. This activity served as the implementation of the outcomes of the mentoring process, aiming to improve the quality of amenities products through the development of packaging designs that are more attractive, functional, and locally distinctive, while simultaneously supporting the application of sustainability principles in tourism destination management.



**Fig 4. Handover of Low-Waste Homestay Amenities Packaging**

The distribution of environmentally friendly bottles as reusable containers is expected to serve as an alternative to single-use packaging, thereby contributing to the reduction of plastic waste generation and promoting more environmentally responsible tourism practices. Through this activity, the partners received tangible outputs that can be directly utilized to enhance the added value of their products, strengthen the image of the tourism destination as environmentally conscious, and support the development of sustainable tourism in Bantar Agung Tourism Village.

#### IV. CONCLUSION

The community service program conducted in Bantar Agung Tourism Village successfully enhanced the capacity of homestay managers in developing low-waste amenities that align with the principles of sustainable tourism and the Global Code of Ethics for Tourism. Through training and mentoring activities, participants gained knowledge regarding environmentally friendly packaging materials, the use of reusable and biodegradable containers, and the importance of reducing plastic waste in tourism operations. The program also emphasized the need for proper cleaning and sterilization procedures for reusable containers, particularly refillable bottles, to ensure compliance with health and hygiene standards. This

aspect is essential to prevent bacterial contamination and to address common concerns among homestay guests regarding the safety of reusable amenities.

The handover of packaging designs and environmentally friendly bottles provided tangible outputs that can be directly implemented by the tourism village management. These innovations are expected to improve product quality, strengthen the destination's environmentally responsible image, and increase the added value of homestay services. Overall, the program contributes to the development of more sustainable tourism practices in Bantar Agung Tourism Village while encouraging greater environmental awareness among tourism stakeholders and visitors.

## V. ACKNOWLEDGMENTS

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The collaboration established among academic institutions, local communities, and tourism stakeholders has been instrumental in promoting sustainable tourism development and strengthening environmental awareness through the implementation of low-waste homestay amenities in Bantar Agung Tourism Village.

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