



## **IMPLEMENTATION OF ECOLOGICAL VALUES AND SOCIAL PARTICIPATION IN THE ENVIRONMENTAL CLEAN-UP ACTION PROGRAM IN TANJUNG SURAT VILLAGE, JOHOR, MALAYSIA**

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**Abstract:** Environmental cleanliness is a fundamental aspect of community well-being and sustainability. However, in many rural coastal areas, environmental awareness and waste management practices remain limited. This community service program, titled “Aksi Bersih Lingkungan: Implementation of Ecological Values and Social Participation,” was conducted in Kampung Tanjung Surat, Johor, Malaysia, with the objective of fostering ecological consciousness and strengthening community participation in environmental care. The program applied a participatory and collaborative approach involving students from Universitas Riau Kepulauan (Indonesia), Universitas Ibnu Sina, Politeknik Ibrahim Sultan (Malaysia), and local residents. Core activities included beach and mosque-yard clean-ups, repainting public facilities, and environmental education sessions. The implementation emphasized hands-on engagement and cross-cultural collaboration as a form of experiential learning. As a result, the program significantly improved the cleanliness and aesthetics of public spaces, removed approximately 70 kilograms of waste, and increased the residents’ sense of environmental responsibility. Beyond physical outcomes, the initiative successfully cultivated behavioral changes and strengthened collective awareness of sustainable ecological practices. This program demonstrates that community-based collaboration can effectively promote environmental stewardship and long-term social transformation.

### **INTRODUCTION**

Environmental sustainability has become a global priority, particularly in coastal regions where ecosystem balance directly influences social and economic stability. According to Hussain Shah (2025), communities play a vital role in advancing climate action through collective behavior and social learning, emphasizing that environmental improvement must begin at the grassroots level. Community participation in ecological management is considered one of the most effective approaches to fostering long-term sustainability, as it combines local knowledge with shared responsibility (Yasir et al., 2025). Within this context, small island and coastal communities hold significant potential as models of community-based ecological empowerment due to their close relationship with nature and high vulnerability to environmental degradation (Fauzi et al., 2025).

Kampung Tanjung Surat, located at the estuary of the Johor River in southern Malaysia, represents a small yet vibrant coastal community surrounded by extensive mangrove forests. With



approximately 300 residents living across more than one hundred households, the community's livelihood is closely tied to its natural environment. The area is rich in biodiversity, particularly mangrove species that function as ecological buffers against coastal erosion and serve as breeding grounds for marine life (Shaharudin et al., 2024). However, despite its ecological potential and natural beauty, the community faces environmental management challenges due to limited access to infrastructure and the increasing impact of waste accumulation along coastal areas. These conditions reflect both the vulnerability and the ecological significance of Tanjung Surat as a site for environmental-based community empowerment.

Over the years, the residents of Tanjung Surat have been confronted with gradual degradation of their mangrove ecosystems and the emergence of unmanaged waste in public spaces. The absence of a structured waste management system, coupled with limited environmental awareness, has contributed to the accumulation of household waste near residential zones and coastal lines. Moreover, due to the island's remoteness, government waste collection services are inconsistent. This situation has led to concerns about health, aesthetics, and the long-term sustainability of the island's ecosystem. The lack of regular clean-up initiatives and public education programs has also weakened the collective responsibility of the community toward maintaining a clean and sustainable environment (Mina et al., 2024).

To address these issues, the community service team from Universitas Riau Kepulauan (Indonesia), in collaboration with Politeknik Ibrahim Sultan (Malaysia), initiated a cross-border environmental program titled "*Aksi Bersih Lingkungan: Implementing Ecological Values and Social Participation.*" The program was designed based on a participatory and community-based approach, encouraging residents and students to engage directly in environmental clean-up activities while promoting the internalization of ecological values. Rather than focusing solely on one-time clean-up efforts, the initiative emphasized education, shared responsibility, and behavioral change. Through joint activities such as beach cleaning, repainting public facilities, and mosque yard maintenance, participants were guided to embody sustainable habits and a sense of environmental stewardship.

The main objective of this community service activity was to foster ecological awareness and social participation among the residents of Kampung Tanjung Surat. The program sought to enhance the community's understanding of the relationship between cleanliness, environmental health, and collective well-being. In addition, it aimed to empower local youth and women's



groups to become agents of change capable of sustaining environmental programs beyond the project's duration. By engaging both local residents and partner institutions, the initiative also promoted cultural exchange and strengthened regional collaboration between Indonesia and Malaysia in advancing environmental education and community resilience.

Ultimately, the *Aksi Bersih Lingkungan* initiative serves as an embodiment of applied ecological education transforming theoretical environmental concepts into lived community practices. It bridges academic insight with social action, emphasizing that sustainability begins from collective awareness and shared commitment. The project not only improved the physical environment but also cultivated a renewed sense of belonging and cooperation among participants. Such grassroots-driven programs highlight how transnational collaboration and participatory methods can effectively nurture eco-conscious communities that value both nature and solidarity (Abilla et al., 2025).

## **METHODOLOGY**

This community service program adopted a *participatory and collaborative approach* that emphasized direct engagement between university students, local residents, and institutional partners. The collaboration between Universitas Riau Kepulauan (Indonesia) and Politeknik Ibrahim Sultan (Malaysia) created a learning ecosystem that combined academic insights with practical environmental action. The implementation techniques included community workshops, clean-up demonstrations, peer mentoring, and interactive discussions that encouraged participants to exchange ideas about sustainable waste management practices.

The program was conducted through four main stages that ensured systematic and measurable outcomes:

1. Preparation Stage

This stage involved coordination meetings with the village leaders of Kampung Tanjung Surat, logistical arrangements, and a needs analysis to understand the local environmental challenges.

2. Implementation Stage

Core activities included repainting community facilities such as the village hall and customs academy building, conducting beach clean-up operations, and organizing collective cleaning around the mosque compound.



### 3. Evaluation Stage

After each activity, reflection sessions were held to assess participants' responses, measure engagement, and discuss improvements.

### 4. Follow-Up Stage

The follow-up included discussions with local leaders regarding the sustainability of environmental programs and the potential establishment of a community-based environmental group.

The target group of this program consisted of the residents of Kampung Tanjung Surat, including youth groups, women's associations, and local students from the Royal Malaysian Customs Academy. The program also involved 64 students from Universitas Riau Kepulauan, 10 from Universitas Ibnu Sina, and 12 from Politeknik Ibrahim Sultan. The activities took place in Kampung Tanjung Surat, Johor, Malaysia, from August 23 to August 26, 2025. The area's rich mangrove ecosystem and cultural diversity provided a meaningful context for learning, collaboration, and ecological education.

The overall process of the *Aksi Bersih Lingkungan* program followed a sequential yet adaptive flow:

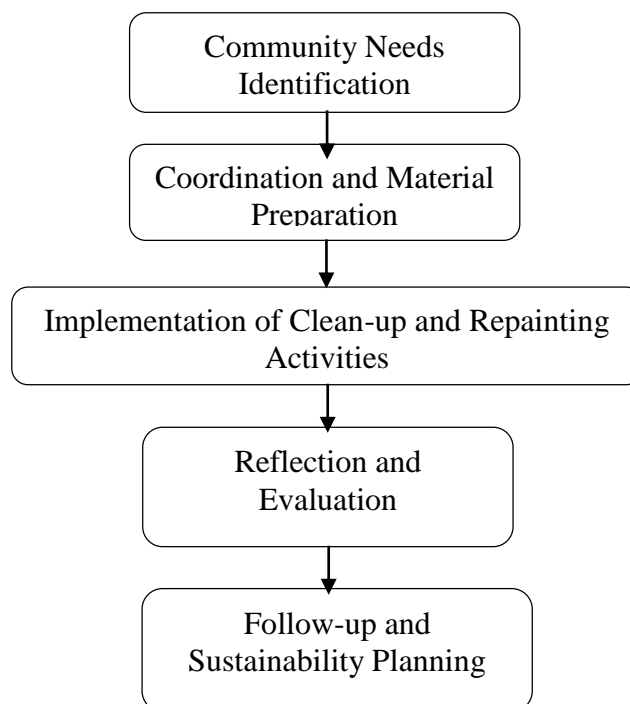


Figure 1. Environmental Cleanup Action Program Flowchart



## RESULTS AND DISCUSSION

### a) Program Implementation Context

The *Aksi Bersih Lingkungan* program was successfully implemented through a series of well-organized and collaborative activities that combined ecological education and practical community engagement. The organizing committee, consisting of student volunteers from Universitas Riau Kepulauan, Universitas Ibnu Sina, and Politeknik Ibrahim Sultan, worked closely with local authorities and the Royal Malaysian Customs Academy. Activities were conducted in several key locations, such as the village hall, mosque courtyard, and the coastal area of Kampung Tanjung Surat all chosen for their visibility and communal value.

The overall atmosphere during the program was filled with enthusiasm and cooperation. Students and residents interacted openly, creating a lively and inclusive learning environment. The open-air setting, surrounded by mangrove forests and coastal landscapes, contributed to a sense of environmental connection and shared responsibility. Despite minor logistical challenges such as transporting materials and brief rain interruptions, the participants displayed strong determination to complete each activity. These interactions fostered mutual respect, solidarity, and a deeper understanding of ecological stewardship within the community.

### b) Level of Participant and Partner Engagement

The program involved a total of 111 participants, consisting of 64 students from Universitas Riau Kepulauan, 10 students from Universitas Ibnu Sina, 12 students from Politeknik Ibrahim Sultan, and 25 residents of Kampung Tanjung Surat. The attendance rate was consistently above 95%, with participants showing exceptional enthusiasm throughout the four-day program. Local leaders and residents were particularly active, working hand-in-hand with students to complete cleaning and repainting tasks.

*Table 1. Level of Participant Engagement*

<b>Participant Group</b>	<b>Number</b>	<b>Percentage</b>
Students (Universitas Riau Kepulauan)	64	57.7%
Students (Universitas Ibnu Sina)	10	9.0%
Students (Politeknik Ibrahim Sultan)	12	10.8%
Local Residents (Kampung Tanjung Surat)	25	22.5%
<b>Total</b>	<b>111</b>	<b>100%</b>



This high participation rate not only demonstrates the program's inclusivity but also indicates a genuine interest in sustainable community action. The active involvement of youth and women reflected a positive shift in environmental behavior, transforming passive awareness into collective initiative.

The most visible output of the *Aksi Bersih Lingkungan* program was the tangible improvement of public spaces across Kampung Tanjung Surat. The repainting of public buildings restored a sense of pride and cleanliness in the community. The coastal clean-up successfully removed approximately 70 kilograms of waste, significantly improving the coastal landscape and reducing pollution. The program also helped establish a more positive relationship between environmental care and social participation, reinforcing that ecological values can be cultivated through shared experiences.



Figure 2. Repainting Activities at the Royal Malaysian Customs Academy, Kampung Tanjung Surat

The painting activities were divided into two main teams. The first group of 32 participants focused on repainting the Royal Malaysian Customs Academy, while the second group, also consisting of 32 participants, revitalized the walls and structures of the village hall. These activities enhanced not only the visual appearance of the area but also instilled a sense of ownership among residents who contributed their time and effort.



Figure 3. Beach Clean-Up Activities at the Coastal Area of Kampung Tanjung Surat



The beach clean-up event, held early in the morning after the community exercise session, involved all participants in collecting and sorting waste, cutting overgrown grass, and organizing waste bins. These efforts created a cleaner and more inviting coastal environment while promoting awareness about marine ecosystem preservation.



Figure 4. Mosque Yard Clean-Up in Kampung Tanjung Surat, Johor, Malaysia

Another impactful component was the mosque-area clean-up, which encouraged collaboration between students and local residents. Participants cleaned, swept, and organized the mosque compound to create a more comfortable worship space. This activity not only addressed environmental hygiene but also strengthened spiritual and social bonds within the community. The outcomes of the *Aksi Bersih Lingkungan* program effectively addressed the community's primary environmental challenges namely, waste management limitations and declining ecological awareness. The participatory and collaborative methods used in this program allowed residents to learn through direct experience, reinforcing the importance of cleanliness and sustainability as part of their collective identity.

#### c) Outputs and Deliverables

These results align with studies such as Yasir et al. (2025) and Mina et al. (2024), which highlight that participatory community engagement enhances both environmental literacy and behavioral change. Similar findings were also noted by Haryono and Lestari (2023), who emphasized that the integration of local culture and environmental education strengthens long-term environmental awareness. The cross-border collaboration between Indonesian and Malaysian institutions further demonstrated that international academic partnerships can play a



crucial role in advancing grassroots environmental empowerment (Abilla et al., 2025; Rahman et al., 2023).

In many community-based environmental projects, participatory learning has proven effective in transforming temporary actions into sustainable habits (Santos et al., 2022). Through direct involvement, individuals acquire not only practical skills but also emotional and social connections to environmental values (Yasir et al., 2025; Lee & Suh, 2021). This was evident in Kampung Tanjung Surat, where residents began replicating clean-up efforts independently after the project concluded, mirroring the pattern observed by Wu et al. (2022), who found that experiential participation fosters behavioral continuity in rural eco-initiatives.

Furthermore, the program's collaborative approach resonated with theories of *social capital and ecological citizenship* (Putra et al., 2023), emphasizing that environmental transformation thrives when supported by trust, cooperation, and shared responsibility. The program also encouraged intergenerational learning, where young participants engaged with elders to exchange practical knowledge about waste reduction and natural conservation. Such intergenerational exchange has been proven to strengthen community resilience and environmental identity (Sloan et al., 2021).

From a broader perspective, community-based ecological programs like this contribute significantly to the United Nations' Sustainable Development Goals (SDGs), particularly Goal 11 (Sustainable Cities and Communities) and Goal 13 (Climate Action). Studies by Lim and Tan (2023) and Choi et al. (2024) argue that local-scale participation creates measurable environmental impact while reinforcing social inclusion and shared ownership. Thus, *Aksi Bersih Lingkungan* not only improved the immediate physical environment but also served as a catalyst for sustainable community transformation.

More than just improving physical conditions, the program nurtured a sustainable mindset. The follow-up discussions with village leaders about forming an environmental task group indicate that the initiative's legacy will continue through local leadership. In essence, the *Aksi Bersih Lingkungan* program successfully transformed ecological awareness into concrete action merging environmental education, cultural cooperation, and community solidarity into a sustainable model for collective ecological care (Fauzi et al., 2025; Shahrudin et al., 2024).



## CONCLUSION AND RECOMMENDATIONS

### Conclusion

The *Aksi Bersih Lingkungan* program in Kampung Tanjung Surat, Johor, Malaysia, successfully met its objectives of promoting ecological awareness and enhancing community participation in environmental preservation. Through participatory collaboration among students from Universitas Riau Kepulauan, Universitas Ibnu Sina, and Politeknik Ibrahim Sultan, alongside local residents, the initiative fostered a strong sense of shared responsibility and environmental stewardship. Tangible outcomes were evident in the improved cleanliness of public areas, repainted community facilities, and revitalized coastal zones. More importantly, the program cultivated behavioral change encouraging residents to initiate independent clean-up activities and adopt environmentally friendly habits. The initiative also reinforced cross-cultural cooperation between Indonesia and Malaysia, demonstrating how academic partnerships can effectively empower local communities through practical ecological action.

### Recommendations

Although the program achieved significant success, several challenges emerged that can inform future community service projects. Limited transportation access and logistical constraints in bringing materials to the island highlighted the need for stronger pre-activity coordination and local resource mobilization. To enhance sustainability, it is recommended that a *Village Environmental Task Force* be formally established to continue routine clean-up and environmental education programs throughout the year. Periodic follow-up visits by the collaborating universities could further support capacity building and monitor long-term impact.

### Acknowledgements

The authors would like to express their sincere gratitude to Universitas Riau Kepulauan (UNRIKA) for providing full support and coordination throughout the implementation of the *Aksi Bersih Lingkungan* program. This community service activity was made possible through institutional collaboration and logistical assistance under the supervision of the Institute for Research and Community Service (LPPM) UNRIKA, with additional partnership and funding support from Universitas Ibnu Sina and Politeknik Ibrahim Sultan (Malaysia).

Appreciation is also extended to the local government and community leaders of Kampung Tanjung Surat, Johor, as well as to the Royal Malaysian Customs Academy, for their exceptional cooperation, hospitality, and active participation during the program. Their openness,



commitment, and enthusiasm significantly contributed to the success and impact of this initiative. Finally, the authors wish to acknowledge the dedication of all student volunteers from Universitas Riau Kepulauan, Universitas Ibnu Sina, and Politeknik Ibrahim Sultan, whose collective efforts transformed this activity into a meaningful example of cross-border collaboration and community-based environmental empowerment.

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