

PROFICIENT Community Service

Youth Environmental Awareness Education: Socialization Of Sodong Spring Conservation By The Youth Organization Of Ligarmukti Village

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ABSTRACT

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This community service program aims to raise awareness among the Youth Organization (Karang Taruna) about the importance of maintaining environmental cleanliness in Ligarmukti Village, Bogor, through educational outreach activities. The methods used included lectures, group discussions, and presentations on environmental education. The outreach activity was conducted over one day and involved 20 members of the Youth Organization as participants.

The results of the activity showed an increase in participants' knowledge regarding the impact of waste on the environment, the importance of waste separation, and ways to maintain environmental cleanliness. Pre-test and post-test results indicated a 72.5% increase in knowledge, with high levels of enthusiasm observed throughout the program.

The outreach program successfully provided basic understanding of environmental management and fostered initial awareness to participate in maintaining village cleanliness. It is recommended that similar outreach activities be conducted in other villages and followed by the development of practical action programs as a continuation of the awareness that has been achieved..

I. INTRODUCTION

Environmental cleanliness issues in Indonesian villages remain a persistent challenge that requires serious attention. According to data from the Ministry of Environment and Forestry (2023), the country produces approximately 68 million tons of waste annually, with rural areas contributing around 30% of the total. This condition highlights the importance of active community involvement in environmental management at the village level.

Ligarmukti Village, located in Bogor Regency, faces similar challenges, particularly regarding cleanliness in the Sodong Spring tourism area. Preliminary observations indicate that this tourist site is poorly maintained, there is a lack of public awareness regarding waste sorting, and the youth have not yet played an optimal role in preserving environmental cleanliness. These issues call for structured and sustainable interventions.

Figure 1: Map of Ligarmukti Village, Bogor, Wet Java. Indonesia



Karang Taruna, as a youth-based organization at the village level, holds great potential to become an agent of change in environmental management. Therefore, providing environmental awareness outreach to Karang Taruna is a strategic step to foster environmental consciousness in Ligarmukti Village, serving as an initial phase in promoting behavioural change among the local community. According to Fahmy et al. (2025), environmental cleanliness outreach has the potential to improve the quality of life in rural areas, as demonstrated in their study in Pasir Putih Village. Thus, environmental outreach programs are an effective means of fostering a healthier environment and enhancing the community's quality of life in a sustainable manner.

II. LITERATURE REVIEW

The concept of community empowerment in environmental management has developed significantly over the past decade. Outreach-based approaches have proven to be more effective than top-down strategies in fostering sustainable change. The role of *Karang Taruna* (youth organizations) in village development has been widely acknowledged. In the

environmental context, youth involvement can create a significant multiplier effect in raising environmental awareness.

Environmental education programs through outreach activities have been shown to be effective in various studies. Outreach is considered a strategic initial step to build awareness before implementing concrete action programs. A community service program (PKM) conducted by Hairudin & Hamidah (2018) concluded that outreach on Clean and Healthy Living Behaviour (Perilaku Hidup Bersih dan Sehat/PHBS) resulted in increased knowledge among housewives and elementary school students, with all students successfully learning proper handwashing techniques. Similarly, a study by Suprpto & Arda (2021) reported an increase in knowledge among both housewives and elementary students regarding PHBS as a result of the outreach activity.

III. METHODS

This community service program employed an outreach method using a participatory learning approach. The outreach activity was conducted over one day with a duration of 6 hours, involving 30 members of *Karang Taruna* (youth organization) from Ligarmukti Village as participants. Participants were selected through coordination with the *Karang Taruna* leadership to ensure representation from various age groups and educational backgrounds.

The preparation stage included the development of outreach materials, preparation of learning media, and coordination with village authorities. The materials covered topics such as the definition of environmental cleanliness, the impact of waste on the environment and health, types of waste and how to manage them, and the role of youth in maintaining environmental hygiene. Learning media used included slide presentations, educational posters, and short videos on waste management.

The implementation stage consisted of three main sessions. The first session was a pre-test to assess participants' baseline knowledge of environmental cleanliness. The second session delivered materials through interactive lectures, group discussions, and Q&A sessions. The third session involved a post-test to evaluate knowledge improvement after the outreach activity.

Program evaluation was conducted through a comparison of pre-test and post-test results, observation of participant engagement during the activity, and participant feedback via evaluation forms. Collected data were analyzed descriptively to assess the effectiveness of the outreach program in enhancing participants' awareness of environmental cleanliness.

IV. RESULTS AND DISCUSSION

The environmental cleanliness outreach program was successfully implemented with a very high level of participation. All 20 invited *Karang Taruna* members attended and participated from the beginning to the end of the session. Participants' enthusiasm was evident through their active engagement during the Q&A and group discussion sessions. On average, each participant asked 2 to 3 questions related to the topics presented.

The pre-test results indicated that participants' initial knowledge of environmental cleanliness was still limited. The average pre-test score was 38.75%, with most participants lacking an

understanding of the environmental impacts of waste and proper waste management practices. Following the outreach activity, the post-test results showed a significant improvement, with an average score of 72.5%, reflecting a 33.75% increase in knowledge.

Table 1. Evaluation Results of Participants' Knowledge Before and After the Outreach Program

No	Knowledge Aspect	Pre-test (%)	Post-test (%)	Improvement (%)
1	Understanding of Environmental Cleanliness	40	75	35
2	Impacts of Waste on the Environment	35	70	35
3	Types of Waste	50	80	30
4	Waste Management Methods	30	65	35
Average		38.75	72.5	33.75

The table above shows a marked improvement in participants' knowledge across all aspects following the environmental outreach program. Each topic saw an increase of 30–35 percentage points, indicating that the educational intervention was effective in enhancing the awareness and understanding of *Karang Taruna* members regarding environmental cleanliness and waste management.

The topic that attracted the most attention from participants was the impact of plastic waste on the environment and human health. Group discussions generated various creative ideas to reduce plastic usage in daily life. Participants also showed a strong interest in the concept of waste segregation and basic composting practices.

Evaluation results revealed that 90% of participants were satisfied with the content delivered and stated that the outreach activity was beneficial in raising their environmental awareness. Many participants also expressed interest in participating in follow-up activities.

The success of this outreach aligns with adult learning theory, which emphasizes the importance of active participation and the relevance of the material to everyday life. The combination of interactive lectures and group discussions proved to be effective in enhancing participants' understanding. The use of visual media, such as videos, also helped clarify key concepts presented during the session.

However, this outreach represents only an initial step in raising environmental awareness. Sustainable behavioral change requires follow-up through concrete action programs and continuous mentoring. The commitment shown by participants during the session needs to be sustained through more practical and ongoing community initiatives.

Figure 2: Implementation of Extension Activities



V. CONCLUSION

The environmental hygiene outreach program for the *Karang Taruna* (youth organization) of Ligarmukti Village was successfully implemented and achieved its intended objectives. The 72.5% increase in participants' knowledge demonstrates the effectiveness of the outreach methods used. The enthusiasm and active participation of the youth during the activity reflect a strong interest in environmental issues.

This outreach program successfully provided a basic understanding of the importance of maintaining environmental cleanliness, the impact of waste on the environment and health, as well as simple waste management techniques. Participants' commitment to applying the knowledge gained in their daily lives indicates a promising potential for positive behavioural change.

However, this outreach is only an initial step toward increasing environmental awareness. Follow-up programs such as hands-on activities, mentoring, and monitoring are necessary to ensure sustainable behavioural changes. Further research is also needed to assess the long-term impact of the outreach activities on community behaviour change.

VI. ACKNOWLEDMENT

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