



Environmental Communication and Community Participation in River Conservation

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ABSTRACT

This study examines the environmental communication strategies implemented by River Cleanup Indonesia through the Saturday River School Program in RW 05 Lio Genteng, Bandung. Using a qualitative case study approach, data were collected through interviews, participatory observation, and documentation. The findings reveal that storytelling, role-playing, community clean-up activities, and simple visual media effectively increased children's environmental awareness and encouraged behavioral changes related to river cleanliness and waste management. The program also strengthened community participation by using culturally familiar language and interactive educational approaches. The study concludes that community-based environmental communication can effectively foster ecological awareness and promote sustainable environmental behavior within densely populated urban communities.

INTRODUCTION

River pollution has become one of the most critical environmental issues in Indonesia, particularly in densely populated urban areas where household waste management remains inadequate. According to data from the Indonesian Central Statistics Agency, nearly 46% of Indonesia's rivers are severely polluted by domestic and industrial waste. This pollution threatens aquatic ecosystems, public health, and environmental sustainability. Plastic waste is among the most dangerous pollutants because it can take decades to decompose and may break down into microplastics that endanger living organisms. Asean (2024) reports that plastic waste poses a serious threat to the environment due to its long decomposition process and harmful ecological impacts. These environmental problems demonstrate that river conservation requires not only technical solutions but also effective communication strategies that increase public awareness and encourage behavioral change.

Environmental communication plays an important role in delivering environmental messages and encouraging public participation in environmental preservation. Flor and Cangara (2018) define environmental communication as the use of communication approaches, strategies, and techniques for environmental management and protection. They emphasize that communication should not merely function as an instrument for delivering information but also as an integral part of environmental management itself. In addition, Aisyah and Lubis (2017) explain that appropriate communication approaches and cultural understanding can increase community participation in environmental conservation activities, particularly in riverbank communities. Previous studies have also highlighted that effective communication significantly shapes environmental awareness and pro-environmental behavior within society.

River Cleanup Indonesia is a non-governmental organization focused on river conservation through community-based environmental actions and education. One of its programs, the Saturday River School Program, was developed as a participatory educational initiative to foster environmental awareness among residents in RW 05 Lio Genteng, Bandung. Unlike environmental movements that primarily focus on cleanup activities, River Cleanup Indonesia combines environmental education, storytelling, role-playing, and direct community engagement to encourage collective responsibility for river conservation. This approach aligns with Flor and Cangara's (2018) perspective that environmental communication should empower communities to become active participants rather than passive recipients of information.

This study contributes to the development of environmental communication studies by examining how community-based communication strategies are implemented within an urban river conservation program. The novelty of this research lies in its focus on the Saturday River School Program as a unique environmental education initiative that integrates participatory communication and local cultural interaction to strengthen ecological awareness. Furthermore, this study enriches environmental communication literature by

demonstrating how communication strategies can influence behavioral transformation and community participation in environmental preservation. Therefore, this research aims to analyze the environmental communication strategies implemented by River Cleanup Indonesia to foster environmental awareness and encourage community participation in river conservation efforts in RW 05 Lio Genteng, Bandung.

The research questions of this study focus on how River Cleanup Indonesia implements environmental communication strategies through the Saturday River School Program to foster environmental awareness among the residents of RW 05 Lio Genteng, Bandung. This study also examines the challenges encountered in implementing these communication strategies. It explores the reasons for the organization's choice of a community-based educational approach to promote awareness of river conservation and community participation.

LITERATURE REVIEW

Environmental Communication Theory

Environmental communication refers to the use of communication approaches, principles, strategies, and techniques to support environmental management and protection (Flor & Cangara, 2018). Environmental communication functions not only as a tool for delivering environmental information but also as a participatory process that encourages communities to become actively involved in environmental preservation efforts. According to Cox in Wahyudin (2017), environmental communication also serves as a symbolic and pragmatic medium for shaping public understanding regarding environmental issues and human relationships with nature.

In the context of environmental conservation, communication strategies are essential in influencing public awareness and behavioral change. Effective environmental communication involves informative, persuasive, and participatory approaches that encourage collective responsibility for environmental sustainability. Flor and Cangara (2018) explain that environmental communication should empower communities to become active communicators rather than passive recipients of information. Therefore, communication activities must consider social, cultural, and environmental contexts to ensure the effectiveness of environmental campaigns and educational programs.

Previous studies support the importance of environmental communication in increasing environmental awareness. Tata Puspita Ayu (2024) found that environmental communication strategies implemented by Bank Sampah Inspirasi Madani successfully increased environmental awareness through audience, message, and media strategies. Similarly, Mahdi Yusri (2019) explained that environmental communication patterns significantly strengthen public understanding of environmental preservation efforts. These findings indicate that communication strategies play an important role in shaping community participation and ecological awareness.

Communication Strategy

Communication strategy refers to a comprehensive communication planning process designed to achieve specific communication objectives effectively (Sahana et al., 2021). According to Cangara, a communication strategy consists of several stages, including evaluation, planning, message production, and action-reflection processes. These stages are essential in determining how messages are constructed, distributed, and interpreted by audiences.

Previous studies demonstrate that strategic communication contributes significantly to environmental campaigns and public participation. Sandy Del Putra (2022) revealed that communication strategies implemented by the Environmental Agency of Pekanbaru influenced public awareness regarding environmental cleanliness despite several institutional barriers. Meanwhile, Salma Nurul Khalida (2023) found that interpersonal communication strategies grounded in participatory interaction effectively fostered active engagement and behavioral development among students with hearing impairments. These findings suggest that communication strategies emphasizing participation, interaction, and contextual adaptation can effectively support social and environmental awareness programs.

Environmental Awareness

Environmental awareness refers to attitudes and actions that reflect an understanding of the importance of maintaining a clean, healthy, and sustainable environment. According to Amos (Arkansyah et al., 2021), environmental awareness can be observed through individual behavior and actions undertaken voluntarily, without external pressure. Amos identifies four factors influencing environmental awareness: lack of knowledge, poverty, humanity, and lifestyle. A lack of environmental knowledge may reduce public awareness of environmental preservation, while poverty often shifts attention toward meeting basic needs rather than addressing environmental issues. In addition, humanitarian values encourage individuals to protect the environment for collective well-being, and environmentally friendly lifestyles tend to increase concern for ecological sustainability.

Environmental awareness is also understood as an active process through which individuals respond to external and internal environmental realities. Awareness involves understanding social and environmental conditions and translating that understanding into responsible attitudes and behaviors. According to Poerwadarminata (Afandi et al., 2012), the environment encompasses all conditions, influences, and spaces surrounding human life and affecting living organisms. Therefore, humans are expected to develop both individual and collective responsibility in preserving environmental quality and addressing environmental problems. Active participation and behavioral commitment are essential in supporting sustainable environmental conservation efforts.

METHODOLOGY

This study employed a qualitative case study approach to examine the environmental communication strategies implemented by River Cleanup Indonesia through the Saturday River School Program in RW 05 Lio Genteng, Bandung. According to Sugiyono (2020), qualitative research is used to understand social phenomena in depth by emphasizing meaning, interaction, and context. Meanwhile, Yin (2018) explains that a case study approach is appropriate for investigating complex social phenomena within real-life contexts. The research focused on River Cleanup Indonesia as the primary subject, examining the organization's environmental communication strategies for fostering environmental awareness among residents. Data were collected through in-depth interviews, participatory observation, documentation, and literature review. Informants were purposively selected based on their involvement in and understanding of the Saturday River School Program, including organizational members, community leaders, and participating residents.

The collected data were analyzed using qualitative data analysis techniques, including data reduction, data presentation, and conclusion drawing. Sugiyono (2020) states that qualitative data analysis is conducted continuously throughout the research process to interpret meanings and identify patterns in the collected data. To ensure data validity, this study employed triangulation by comparing findings from interviews, observations, and supporting documents. The analysis focused on identifying environmental communication strategies, participatory educational approaches, communication barriers, and their influence on community environmental awareness and behavioral changes related to river conservation efforts.

RESEARCH RESULT

The results of this study indicate that River Cleanup Indonesia successfully implemented environmental communication strategies through the Saturday River School Program to foster environmental awareness among residents of RW 05 Lio Genteng, Bandung. The program applied participatory communication approaches through storytelling, role-playing, environmental education, direct clean-up activities, and simple visual communication media. These approaches were designed to make environmental messages easier to understand and more engaging for children and local communities. According to Flor and Cangara (2018), environmental communication is not merely the delivery of information but also a participatory process that encourages communities to become actively involved in environmental management and protection. This concept was reflected in the program's implementation, where residents and children were directly involved in environmental activities and educational interactions.

The study found that the environmental communication strategies implemented by River Cleanup Indonesia significantly increased environmental awareness and shaped pro-environmental behavior within the community. Participants demonstrated behavioral changes, such as reducing littering, properly sorting waste, and encouraging others to maintain river cleanliness.

Children participating in the program also showed greater confidence in reminding adults not to dispose of waste carelessly. This finding supports Amos's perspective in Arkansyah et al. (2021), who explain that environmental awareness can be identified through individual attitudes and actions that are consciously and voluntarily carried out. Furthermore, the program succeeded in building collaborative relationships between the organization and the local community through culturally familiar communication approaches and interactive participation.

In addition, the findings reveal that communication strategies based on community participation and local interaction were more effective in encouraging environmental awareness than one-way communication approaches. River Cleanup Indonesia emphasized educational and persuasive communication by involving residents directly in environmental activities rather than solely providing information about environmental problems. This finding aligns with Cangara's communication strategy theory, which emphasizes the importance of evaluation, planning, message production, and action-reflection processes in achieving communication objectives. Through these stages, environmental communication became more adaptive to the community's social and cultural conditions.

However, the study also identified several obstacles in implementing environmental communication strategies. Limited public awareness, inconsistent participation, and deeply rooted habits of improper waste disposal became major challenges during the program implementation. Some residents still considered river pollution a common issue and lacked long-term commitment toward environmental preservation. According to Nugroho and Dirgantara (2023), environmental communication often faces barriers stemming from low public participation and limited environmental understanding in urban communities. Despite these challenges, the Saturday River School Program demonstrated that community-based environmental communication can effectively strengthen ecological awareness and encourage sustainable environmental behavior in densely populated urban areas.

DISCUSSION

The findings of this study demonstrate that environmental communication strategies implemented by River Cleanup Indonesia through the Saturday River School Program significantly increased environmental awareness and encouraged community participation in river conservation activities. The program emphasized participatory and community-based communication approaches, including storytelling, role-playing, direct environmental practices, and interactive educational activities. These approaches enabled environmental messages to be delivered more engagingly and understandably, particularly for children and residents. This finding supports Flor and Cangara's (2018) argument that environmental communication should serve not only as a medium for information dissemination but also as a participatory process that empowers communities to become active actors in environmental preservation.

Through direct participation, residents were able to connect environmental knowledge with their daily experiences and social realities. The study also reveals that communication strategies grounded in local interaction and cultural familiarity were more effective at fostering ecological awareness than one-way communication methods. River Cleanup Indonesia adapted its communication approaches to use simple language, community-oriented interactions, and collaborative activities that reflected the social characteristics of RW 05 Lio Genteng. This participatory communication model strengthened emotional engagement and collective responsibility among participants. According to Cox in Wahyudin (2017), environmental communication serves as a symbolic and pragmatic process through which society constructs meaning regarding environmental issues and human relationships with nature. In this study, environmental communication became a social process that shaped awareness, attitudes, and environmental behavior within the community. The findings indicate that environmental awareness emerged not only from receiving information but also from direct involvement in environmental activities and shared social experiences.

Furthermore, the findings demonstrate that environmental education delivered through practical activities had a stronger impact on behavioral change than theoretical explanations alone. Children participating in the Saturday River School Program showed improved environmental responsibility through habits such as avoiding littering, separating waste, and encouraging others to maintain river cleanliness. This finding aligns with Amos in Arkansyah et al. (2021), who explain that environmental awareness can be reflected in voluntary attitudes and actions performed without external pressure. The development of environmental awareness in this study was influenced by participatory learning experiences that allowed participants to observe and practice environmentally responsible behavior directly. Therefore, environmental communication became not only a cognitive process but also a behavioral and social transformation process.

River Cleanup Indonesia's communication strategies can also be understood through Cangara's communication strategy framework, which comprises evaluation, planning, message production, and action-reflection stages. The organization first identified environmental problems and community characteristics before designing communication messages appropriate to the local social context. Educational messages were then delivered through interactive and persuasive approaches, followed by direct environmental action and continuous community involvement. This process enhanced the effectiveness of environmental communication by adapting the program to the community's needs, experiences, and communication patterns. The findings support previous studies by Tata Puspita Ayu (2024) and Mahdi Yusri (2019), which emphasize that environmental communication strategies significantly increase public awareness and participation in environmental conservation efforts.

However, this study also identified several challenges in implementing environmental communication strategies. Limited public awareness, inconsistent participation, and long-standing habits of improper waste disposal

remained significant barriers during the program implementation. Some community members still perceived environmental issues as ordinary problems and lacked long-term commitment to environmental preservation. These findings support Nugroho and Dirgantara's (2023) argument that environmental communication often faces obstacles stemming from low public participation and limited environmental understanding in urban communities. Despite these limitations, the Saturday River School Program demonstrated that community-based environmental communication can foster sustainable environmental awareness and behavior change when implemented through participatory, culturally adaptive, and collaborative approaches.

CONCLUSIONS

This study concludes that the environmental communication strategies implemented by River Cleanup Indonesia through the Saturday River School Program effectively fostered environmental awareness and encouraged community participation in river conservation efforts within RW 05 Lio Genteng, Bandung. The organization applied participatory and community-based communication approaches through storytelling, role-playing, environmental education, direct clean-up activities, and interactive social engagement. These strategies made environmental messages more understandable, relatable, and applicable to the daily lives of community members, particularly children. The findings indicate that environmental communication functions not only as an informational process but also as a social and behavioral transformation process that shapes ecological awareness and collective responsibility for environmental sustainability.

The study also found that participatory communication approaches grounded in local interactions and culturally familiar communication patterns were more effective than one-way communication methods in fostering environmental awareness. Community involvement in practical environmental activities strengthened behavioral changes, such as reducing littering, improving waste management practices, and increasing collective responsibility for river cleanliness. However, the research identified several challenges, including limited environmental awareness among some residents, inconsistent community participation, and deeply rooted environmental habits that hinder long-term behavioral transformation. Despite these obstacles, the Saturday River School Program demonstrates that community-based environmental communication can become an effective strategy for promoting sustainable environmental awareness in densely populated urban communities.

RECOMMENDATIONS

Based on the findings of this study, River Cleanup Indonesia is encouraged to strengthen the sustainability of the Saturday River School Program by expanding collaboration with local governments, educational institutions, and community organizations. Long-term environmental communication programs and continuous community engagement are necessary to maintain public participation and strengthen ecological awareness within urban communities. The organization is also recommended to develop more

diverse communication channels and digital environmental campaigns to reach broader audiences and increase access to environmental education.

For future researchers, this study may serve as a reference for examining environmental communication practices in different social and cultural contexts. Further studies are recommended to explore the long-term impacts of community-based environmental communication on behavioral transformation and environmental policy development. In addition, future research may investigate the role of digital communication platforms and environmental advocacy strategies in strengthening public participation in environmental conservation efforts.

ADVANCED RESEARCH

This study has several limitations, particularly its focus on a single community-based environmental program in RW 05 Lio Genteng, Bandung, which limits the generalizability of the findings to other social and environmental contexts. In addition, this research primarily employed a qualitative approach, emphasizing an in-depth understanding of environmental communication practices without quantitatively measuring long-term behavioral changes. The study also focused mainly on direct community interaction and did not extensively explore the influence of digital media and online environmental campaigns. Therefore, future research is recommended to investigate environmental communication strategies in broader communities, examine the role of digital communication platforms in promoting ecological awareness, and conduct longitudinal studies to analyze the long-term impact of environmental communication on sustainable environmental behavior and community participation in river conservation efforts.

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