

COMMUNITY PARTICIPATION IN WASTE MANAGEMENT AT RAMLI GRAHA INDAH AIR PUTIH WASTE BANK

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ABSTRACT

The issue of waste has become a national concern and a significant topic in urban environmental problems. The worsening state of the environment requires many parties to take an active role in improving current conditions. An example is the Ramli Graha Indah waste bank in the Air Putih village, which aims to reduce the volume of waste. This study aims to determine whether the community participates in waste management at the Ramli Graha Indah waste bank and what motivates them to contribute. A qualitative approach with descriptive techniques was employed, involving in-depth interviews to describe the conditions of the research subjects and objects, as well as analyzing operational concepts, frameworks, and laws related to the problem. The findings reveal that 7 out of the bank's customers were inactive, primarily due to the distance between their homes and the waste bank. The primary motivation for participation was the financial benefit, such as additional income from waste sales. The study concludes that the long distance from home and the habit of waiting for waste to accumulate are key reasons for inactivity among customers.

Keywords: society participation, waste management

INTRODUCTION

Waste management has become a national issue and a critical topic in urban environmental problems. The generation of waste will not diminish or stop; instead, it will continue to increase in line with population growth and the rising complexity of human activities. Waste problems can be addressed if both the community and the government fulfill their responsibilities in managing waste responsibly. Community participation as waste producers can be realized by establishing waste management practices at the city level, starting from the grassroots as the lowest structure within the overall urban waste management (1).

According to the Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number 14 of 2021 on Waste Management in Waste Banks, Article 1, Paragraph 6, a Waste Bank is a facility for waste management that adheres to the 3R principles (reduce, reuse, recycle). Waste Banks serve as a means of education, behavioral change in waste management, and the implementation of a circular economy managed by the community, businesses, and local governments (2).

The Waste Banks management must comply with Law Number 18 of 2008 concerning Waste Management and Ministerial Regulation Number 81 of 2012 regarding Household Waste Management and implementing regulations, which outline that waste management involves both reduction and handling activities. The types of waste that can be managed at Waste Banks include household waste and waste similar to household waste, following the Minister of Environment and Forestry Regulation Number 14 of 2021 (3).

The Minister of Environment and Forestry Regulation of the Republic of Indonesia Number 14 of 2021 regarding Waste Management in Waste Banks outlines that waste management starts with reducing waste. This reduction involves reusing waste without prior processing by repurposing all or part of the waste according to its original use. The waste types covered include plastic, paper, metal, and glass. After reduction, the subsequent steps are sorting, collecting, and processing the waste. Sorting involves categorizing waste by type. Once sorted, waste is collected, either by households bringing it to waste bank facilities or by

the waste bank managers themselves. The final step is waste processing, which includes composting and recycling to create useful products (4).

The worsening environmental conditions call for proactive efforts from multiple stakeholders to improve the situation. One notable example is the Ramli Graha Indah Waste Bank located in the Air Putih Subdistrict. Established in 2011, this waste bank has been at the forefront of waste reduction and environmental education in Samarinda City for the past 13 years. Its mission is to cut down on waste, particularly targeting the problem of littering in streets, rivers, and other areas by engaging a previously indifferent community. With a population of 23,264 people in Air Putih, the waste bank serves 40 customers and is managed by a team of six. While most customers come from Graha Indah Housing, others are from surrounding areas like Sambutan. The waste bank operates on a weekly basis, handling mainly organic waste due to its relatively small volume. Beyond waste management, the Graha Indah Waste Bank also participates in activities such as gardening and recycling to further its environmental goals.

Community motivation for waste management is still limited, as people often prioritize meeting basic needs and economic concerns over environmental issues. As a result, waste management remains a crucial area that needs more focus. Many individuals haven't yet adopted positive waste disposal practices, such as proper waste segregation. Instead, some continue to dispose of waste indiscriminately or burn it in their yards, leading to air pollution and unpleasant odors. These problems highlight a significant gap in understanding waste management systems despite government regulations aimed at reducing waste through initiatives like Waste Banks. In the case of the Ramli Graha Indah Waste Bank in Air Putih, community participation remains low. Factors such as the distance between homes and the waste bank and insufficient public awareness contribute to this issue. Many residents continue to dispose of waste incorrectly or burn it rather than adhering to the waste management systems in place. This study diverges from the research titled "Community Participation in Waste Management at the Pematang Pudu Clean Waste Bank in Duri" (3) by focusing specifically on geographic factors, such as the distance from homes to the waste bank, as a key reason for limited community involvement. In contrast, the Pematang Pudu Duri study examines a broader range of factors, including knowledge, skills, occupation, education, gender, and cultural beliefs. Another related study, "Waste Management through Waste Banks to Improve Community Welfare" (5), centers on the economic impacts and environmental awareness within communities. Unlike this study, which delves into how distance affects participation at the Ramli Graha Indah Waste Bank, the other research emphasizes the overall benefits of waste banks in enhancing community welfare by promoting waste-saving practices and converting waste into marketable products. Both studies underscore the critical role of community involvement in waste management through waste banks and highlight the economic advantages they offer.

METHOD

The author's research employs a qualitative, descriptive approach to capture the conditions of various subjects, including individuals, institutions, and communities. It relies on observations and in-depth interviews conducted by the researcher to explore operational concepts, frameworks, and legal aspects related to the research problem. The study, focused on the Ramli Graha Indah Waste Bank in Air Putih, involved a sample of 7 customers who were not actively engaged in waste bank activities. Sampling methods included direct observation, interviews, and documentation. Data collection consisted of pre-planned interviews and documentation. The analysis involved several techniques, such as data reduction, narrative text presentation, and the use of matrices, networks, and charts. The researcher summarized and processed all collected data to draw comprehensive conclusions.

RESULT AND DISCUSSION

This study seeks to understand why certain customers are inactive and what motivates them to deposit waste at the Ramli Graha Indah Waste Bank. Based on interviews and observations of seven inactive customers, the main findings are:

1. Respondent A: Inactive because they wait until their waste accumulates in large amounts, especially since some waste is non-recyclable. They only deposit waste every 3-5 months. Motivation: A better understanding of the 3Rs (Reduce, Reuse, Recycle) and its positive effects on environmental health.
2. Respondent B: Inactive because some waste, like glass bottles, is not accepted by the waste bank and lacks resale value. Motivation: The structured management system and the potential for extra income from selling waste.
3. Respondent C: Inactive due to the distance between their home and the waste bank. Motivation: A desire to maintain a healthy environment by recycling plastic and turning waste into valuable products.
4. Respondent D: Inactive because of the long distance to the waste bank. Motivation: The economic benefits of collected waste and contributing to environmental preservation.
5. Respondent E: Inactive due to time constraints from sorting waste at home while working. Motivation: The waste bank helps manage household waste more effectively.
6. Respondent F: Inactive because they prefer to wait until they have a larger amount of waste before depositing. Motivation: The waste bank assists in managing waste at home.
7. Respondent G: Inactive due to waiting for a significant amount of waste to accumulate. Motivation: Excellent service, well-organized data management, and ease of access through the website.

Among the seven respondents who were inactive in the waste bank program, several key barriers were identified, including the distance to the waste bank, the types of waste not accepted, and insufficient time for sorting waste. Despite these challenges, many respondents remain motivated to continue depositing waste due to their understanding of the importance of environmental conservation and the economic benefits involved. These findings offer valuable insights into the obstacles customers face in participating in the waste bank, as well as the factors that encourage engagement. The study is expected to help develop recommendations to boost community involvement and improve the effectiveness of waste bank programs in the future.

1. Analysis of Reasons for Customer Inactivity

a. Frequency of Waste Deposit

- 1) Respondent A: Inactive, waiting until a significant amount of waste accumulates, particularly since some of the waste is non-recyclable; only deposits every 3-5 months.
- 2) Respondent F: Inactive, waiting for a sufficient amount of waste to accumulate before depositing.
- 3) Respondent G: Inactive, waiting until a substantial amount of waste is collected before making a deposit.
 - a) Discussion: The type of non-recyclable waste and the frequency of waste accumulation significantly affect customer participation. When waste is non-recyclable, customers are less motivated to deposit it frequently. Additionally, when customers wait for longer periods to accumulate waste, their participation rates drop because deposits are made less often. Research suggests that convenience plays a critical role in encouraging participation; the more frequently customers must visit the waste bank, the less likely they are to do so if it requires significant effort (5).

b. Types of Waste Not Accepted

- 1) Respondent B: Not actively participating because the waste bank does not accept certain types of waste, such as glass bottles, which have no resale value to waste collectors.
 - a) Limitations on the types of waste accepted by the waste bank lead residents to feel their efforts are futile if much of their waste is rejected. This decreases their

motivation to participate, as not all their waste can be managed by the waste bank. Research shows that a wider variety of accepted waste types is essential to boosting community involvement in waste management (6).

c. Distance and Accessibility

- 1) Respondent C: Not active due to the long distance from their home to the waste bank.
- 2) Respondent D: Inactive for the same reason: the waste bank is too far away.
 - a) Discussion: Distance and accessibility are major barriers to participation. The farther the waste bank is from residents' homes, the less likely they are to engage because of the extra time and effort required. Studies show that physical distance is often a key obstacle to community involvement in waste management programs (7).

d. Time Management and Busy Schedules

- 1) Respondent E: Not actively participating due to difficulties in sorting waste at home while juggling work responsibilities
 - a) Discussion: Balancing work and daily activities affects residents' ability to sort waste at home and deliver it to the waste bank. Support systems, like flexible waste collection schedules or home pick-up services, could help those with busy schedules participate more easily. Research emphasizes the importance of supportive systems in encouraging participation from community members with time constraints (8).

2. Analysis of Factors Driving Participation

a. Environmental Awareness

- 1) Respondent A: Interested in waste banking after understanding the 3R concept (Reduce, Reuse, Recycle) and its positive impact on environmental health.
- 2) Respondent C: Participates in helping keep the environment clean from plastic waste and supports recycling processes that transform waste into valuable products.
- 3) Respondent F: Aware of the importance of protecting the environment and actively contributing to waste reduction.
 - a) Discussion: An understanding of the 3R concept and its benefits for environmental health motivates residents to participate in waste management. Increased awareness of the need to maintain a healthy environment also boosts motivation. Research indicates that environmental awareness is a critical factor in encouraging community participation (9).

b. Economic Benefits

- 1) Respondent A: Recognizes that waste can provide economic benefits.
- 2) Respondent B: Appreciates the structured waste management system that offers opportunities to earn additional income through waste sales.
- 3) Respondent D: Sees financial gains from collecting waste while also contributing to environmental conservation.
- 4) Respondent E: Find the waste bank helpful for managing household waste.
 - a) Discussion: Economic incentives are a significant motivator for residents to engage in waste management. Studies highlight that financial benefits can substantially increase community participation in such programs (10).

c. Structured Management System

- 1) Respondent B: Satisfied with the well-organized waste management system.
 - a) Discussion: A structured management system fosters trust and encourages participation among residents. When the waste management process is efficient and transparent, community involvement tends to increase. Studies suggest that such systems improve both the efficiency and effectiveness of waste management programs (11).

d. Facilities and Services

- 1) Respondent G: Praises the excellent service, neat and comprehensive data management, and easy access via the website

- a) Discussion: High-quality service, organized data management, and easy online access significantly influence customer participation. Superior service boosts customer satisfaction and encourages ongoing engagement. Research shows that service quality is a key factor in enhancing community participation in waste management programs (12).

The findings of this study reveal that the primary factors driving community participation in waste management are the economic benefits of selling waste and environmental awareness. Similarly, the study titled "Community Assistance in Increasing Waste Sorting Knowledge in Selili Village, Samarinda Ilir District" (10) found that community outreach programs aimed at improving knowledge about waste sorting also motivated participation, largely due to the economic incentives involved. Both studies highlight that economic benefits are a key motivator for community involvement in waste management.

However, the two studies differ in their focus on barriers to participation. This research identifies physical barriers, such as long distances, as the main reasons for customer inactivity at the Ramli Graha Indah Waste Bank. In contrast, the study in Selili Village focuses on enhancing community participation through increased knowledge and education via outreach programs without emphasizing physical barriers.

The findings from both studies have significant practical implications. This research highlights the need to improve infrastructure and logistics to tackle issues related to distance and accessibility, thereby enhancing community participation. It's also crucial to consistently communicate the economic benefits of selling waste to keep the community motivated. Conversely, the study in Selili Village underscores the importance of education and awareness programs about waste sorting to boost community involvement. Thus, a combined approach involving education, outreach, infrastructure improvements, and effective communication about economic benefits is essential for increasing community participation in waste management.

CONCLUSION

The study shows that residents' inactivity at the Ramli Graha Indah Waste Bank is mainly due to the distance from their homes and their tendency to wait until a large amount of waste has accumulated before depositing it. Motivating factors for participation include the economic benefits of waste sales, a well-organized management system, excellent service, and convenient access to information via the website. To address the challenge of distance, it is recommended to establish additional branches or waste collection points closer to residential areas and offer regular home pickup services, potentially on a weekly or bi-weekly basis. To further encourage participation, consider implementing monthly or annual awards for the most active customers, such as certificates or trophies, and offering rewards like shopping vouchers, household items, or discounts from business partners for those who regularly deposit waste.

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