

Prosperous Waste Bank as an Alternative Waste Management Strategy at Salam Village, Gebang District, Indonesia

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Abstract

The objective of this study is to assess the efficacy of the Prosperous Waste Bank as a substitute waste management strategy in Salam Village, Gebang District, Indonesia. The research technique encompassed conducting field surveys, engaging in interviews with Waste Bank managers, and performing qualitative data analysis. The findings demonstrated that Bank Sampah Sejahtera successfully mitigated environmental pollution by diminishing the quantity of waste and concurrently enhanced public consciousness regarding the significance of waste segregation. The garbage Bank effectively gathers, reprocesses, and markets garbage, resulting in enhanced profits. The primary results indicate that the Prosperous trash Bank in Salam Village has the capacity to diminish trash and yield economic advantages for the local community. The creation of the trash Sejahtera trash bank serves as a viable and efficient approach to waste management at the local community level. This not only contributes to environmental preservation but also enhances individuals' financial earnings. Thus, Bank Sampah Sejahtera serves as a viable waste management model that can be replicated by other villages in the region to address the escalating trash issue in a sustainable manner.

Introduction

Indonesia ranks as the second-largest garbage-producing nation globally, following China. In mid-2020, the country generated a staggering 67.8 million tons of waste (Nurmaisya & Susilawati, 2022:91). Based on the quantity of trash generated, it is imperative to effectively manage garbage to prevent environmental contamination, pollution, and the proliferation of diseases. The issue of garbage is a formidable barrier for the Indonesian government that necessitates resolution. The issue of trash cannot be circumvented, since it necessitates a complete and sustainable approach to ensure that it does not give rise to more complications. Resolving this issue necessitates a substantial amount of time and the collaboration of multiple stakeholders, including the community. The problem of trash is highly intricate and will persist as long as human civilization endures. Considering the fact that Indonesia is comprised of numerous islands with a population of hundreds of millions, it is unsurprising that it consistently generates waste.

Purworejo is a regency situated in Central Java, comprising 16 sub-districts. The sub-district of Gebang is situated in Purworejo, as stated in the study conducted by Sari et al. (2022). Based on the findings of the 2021 population census, the total population of Purworejo regency amounted to 44,717,000 individuals. Gebang sub-district comprises a total of 25

villages or *kelurahan*, including Salam village, which is characterized by its mountainous terrain. Given the geographical conditions, the population can exceed 623 individuals, and with such a substantial number of residents, there are undoubtedly numerous demands to be met. Undoubtedly, due to a substantial population, the community has a wide range of needs, including those related to garbage management. Undoubtedly, in this particular situation, it is evident that a substantial population will inevitably lead to a proportional increase in trash generation. This has the ability to inflict harm upon ecosystems that serve a vital function in upholding the life of all organisms in the area. Hence, it is crucial to formulate effective and sustainable waste management strategies to uphold environmental sustainability and promote the well-being of the community in the Gebang sub-district, particularly in Salam village.

Garbage, as stated by Muliadi et al. (2022), is a form of garbage that possesses the capacity to contaminate multiple facets of the ecosystem, encompassing rivers, lakes, seas, land, and even air quality. Waste can be categorized into many types, such as general household waste, related forms of home waste, and particular waste (Lestari et al., 2020). Household waste refers to the garbage generated by the routine activities of individuals within their homes. Municipal waste refers to non-household waste generated by public facilities and other sources. Conversely, particular waste refers to a category of household waste that contains dangerous substances and cannot undergo any form of processing. Hence, it is crucial to acknowledge that the presence of waste carries the possibility of peril if not well controlled. In order to address this issue, the first step that may be taken is to effectively categorize the garbage, in order to avoid excessive buildup of refuse. Possible strategies include promoting education and fostering community socialization (Hidayat, 2020). An excellent alternative technique for waste management in the surrounding environment is the implementation of trash banks.

The establishment of the waste bank originated from the Green and Clean initiative, which was initially executed in Jakarta. This program plays a crucial role in the management of waste at the household level and emphasizes the empowerment of communities in managing their household waste (Arifa et al., 2019). Typically, a waste bank is a facility designed for the purpose of gathering waste via the process of waste sorting (Ariefahnoor et al., 2020). The rubbish gathered through these waste banks might subsequently be utilized for crafting purposes or sold to waste collectors. The establishment of this garbage bank is a crucial first step in raising public awareness about the advantages of maintaining cleanliness and environmental well-being. trash banks serve as both an efficient trash management solution and a mechanism to educate the public about their responsibility in preserving environmental sustainability. Waste banks promote community engagement in the proper management of waste through the practice of garbage sorting and processing. Waste banks have clear advantages in promoting a circular economy and ensuring cleanliness and environmental sustainability. The community's collection and depositing of plastic garbage into the waste bank can effectively limit waste accumulation.

Method

The type of research used is descriptive qualitative research because it is per the purpose of the study, which is to determine the role of waste banks as an alternative strategy for waste management. Data collection techniques used in this study include observation, interviews, and documentation.

Observation

Observation is the direct observation of an object in the ongoing environment. Observations in this study used participatory observation techniques. That is, the researcher is actively involved in the activity under study. By being directly involved in research can gain a deeper understanding and direct experience.

Interview

An interview is a communication carried out with questions and answers between two researchers and responders or more face-to-face, to get the information needed. This study used an unstructured interview technique where questions can change according to what respondents want. Thus, interviews allow researchers to obtain more accurate data because they adjust the questions to what respondents want.

Documentation

Documentation is a useful source of data to complement research. The documentation method is one technique for collecting data through existing documents or records (Ulfah et al., 2022). The documentation method in research is in the form of photos and videos as part of the data collection process.

Results and Discussion

The Sejahtera trash bank in Salam Village, Gebang District, Purworejo Regency was founded on March 12, 2020 with 12 personnels. The garbage bank is overseen by a group of young individuals who possess both educational qualifications and professional experience. The managers' eagerness to implement the waste bank initiative is undeterred by the activity. All members comprehend that in the event that other members are occupied, they dutifully carry out their tasks as per the agreed-upon terms during the establishment of the trash bank.

The choice to build a waste bank was prudent, given that garbage is a significant issue in the community. However, it is crucial to take into account other factors that would facilitate the functioning of the waste bank. The presence of a trash bank may not be universally suitable for all categories of waste; a waste sorting procedure is necessary. The problems commonly associated with waste management in waste banks encompass social, technological, management, and institutional elements. The social issues pertaining to waste management encompass the insufficient recognition and appreciation within the academic community of the worth and advantages of waste, as well as the limited engagement of the community in waste management activities within their respective workplaces. The academic community currently has a limited awareness regarding the significance of comprehending the worth and advantages of waste management. Furthermore, their involvement in overseeing waste management within work units remains restricted. Problems in the area of waste management encompass numerous difficulties. The current availability of infrastructure facilities for waste banks remains restricted, which might impede the functioning and effectiveness of trash banks. Furthermore, the engagement of trash bank customers has been suboptimal, leading to insufficient involvement in this initiative. Waste bank managers on the institutional side also encounter

suboptimal levels of discipline and commitment. This can impede the seamless running and expansion of waste banks as efficient entities. To tackle these difficulties, it is necessary to take comprehensive measures such as enhancing academic consciousness, enhancing waste bank infrastructure, and promoting customer engagement. Furthermore, it is imperative to enhance the discipline and dedication of waste bank managers in order to enhance operational efficiency and effectiveness.

The Sejahtera waste bank plays a crucial role in garbage management in Salam Village. The garbage bank has effectively established a waste collection mechanism. Each villager has the convenient option to contribute their refuse, which will thereafter be collected by the waste bank officer. Garbage bank officers are responsible for conducting the garbage sorting procedure. Waste sorting at home can be categorized into three, namely organic waste, inorganic waste, and residual waste. The segregation of organic and inorganic trash can also mitigate air pollution resulting from the accumulation of mixed organic and inorganic garbage. Exposure to air pollution can lead to respiratory health issues, particularly affecting the lungs and the process of breathing. Aside from the issue of air pollution, there are additional advantages to sorting household waste, which can contribute to the economic worth of the separated waste materials. The debris is sorted into distinct categories, including paper waste (newspapers, magazines, cardboard, and duplexes), plastic waste (transparent plastics, plastic bottles, and rigid plastics), and metals (iron, aluminum, and tin). Waste sorting enables its recycling and utilization in the creation of economically valuable handicrafts. Furthermore, garbage banks provide environmental benefits and enhance the well-being of surrounding organisms by promoting cleanliness and fostering citizens' knowledge of the significance of maintaining a clean environment. It is evident that waste that has undergone residents' sorting process can yield numerous advantages.

The utilization of sorted garbage for crafting purposes. As per Hotima (2019:20), crafts refer to handmade things that are created using manual talents. The craft created by the Sejahtera waste bank in this instance is a plastic craft made from crackling plastic trash. While the author's plastic trash generation business still relies on plastic as the primary raw material, it is less intricate than the industrial plastic recycling industry and may be operated autonomously. The generation of plastic garbage holds significant potential for commercial value as a creative product. Broadly speaking, this industry can be categorized into two distinct segments, namely products and services. Both sorts of business can be conducted in the realm of plastic waste generation industry. This business manufactures financially lucrative products. The business concepts and goods might be transformed into lucrative workshop, training, or seminar services. Plastic crackling is an exceptionally challenging type of plastic to breakdown. Numerous plastics are not utilized in innovative ways, but rather are primarily used for wrapping or carrying goods, after which the plastic is disposed of. The improper disposal of non-biodegradable crackling plastic leads to the widespread accumulation of plastic garbage. The difficulty in decomposing crackle plastic suggests its potential for creating crafts with both market value and long-lasting resilience. The top manager at the Sejahtera trash bank provides

guidance for craftmaking, enabling Dasawisma members to effectively utilize plastic garbage.

The handcraft products that are produced include plastic flowers, hanging pot flowers, and wall hangings. The production process commences with counseling and training directly facilitated by the trash bank. Following the completion of this task, the subsequent step involves crafting by initially prepping tools and materials. The final product will thereafter be marketed through verbal recommendations, face-to-face interactions, and various social media platforms. The Prosperous Waste Bank has a highly beneficial influence on the surrounding neighborhood through its training and craft-making activities. Handicrafts created from discarded materials possess a relatively elevated market worth and their aesthetic appeal is on par with crafts fashioned from superior-grade resources.

Conclusion

Bank Sampah Sejahtera is a very efficient alternative strategy for trash management at the village level. Not only does this contribute to environmental preservation, but it also enhances public consciousness regarding environmental waste and boosts individuals' income. The activities of waste banks also have a social impact, specifically by fostering community engagement and building relationships between waste bank administrators and the community. Hence, the Prosperous trash Bank serves as a viable trash management paradigm that may be replicated by other villages in the region to address the escalating garbage predicament. A waste bank serves as an educational platform for the public, imparting knowledge about different garbage categories, proper waste sorting techniques, fostering positive community relationships, promoting environmental cleanliness, and harnessing economic value through crafting.

Recommendations

Based on the findings in the research on Prosperous Waste Bank as an Alternative Waste Management Strategy in Salam Village, Gebang District, we would like to provide several recommendations as a guide for parties involved in waste management and waste bank programs.

1. **Strengthening Environmental Education Programs:** It is important to continue to strengthen environmental education programs for the people of Salam Village as a smart solution in forming an understanding of environmental love. With increased public understanding of the importance of waste management and its positive impact on the environment, participation in waste bank programs will increase.
2. **Expansion and Diversification of Waste Utilization:** Waste banks may consider expanding and diversifying the utilization of collected waste. This can involve efforts to produce more recycled products or projects that can increase the economic value of the waste collected.
3. **Partnerships with Relevant Agencies:** It is important to establish closer cooperation with relevant agencies, such as local governments and environmental organizations, to support waste bank programs. This can include additional funding, training, and access to greater resources.
4. **Routine Monitoring and Evaluation:** It is necessary to conduct regular monitoring and evaluation of the waste bank program. This will help in identifying problems or

bottlenecks that may arise over time and allow for quick fixes.

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