

Application of Waste Bank as a Solution to Improve Clean and Healthy Living Behavior in the Muhammadiyah Mosque Environment, Putat Village, Sidoarjo Regency

Nurul Azizah

Muhammadiyah University of Sidoarjo, Indonesia



DOI : <https://doi.org/10.61796/jscs.v3i1.399>



Sections Info

Article history:

Submitted: August 15, 2025

Final Revised: August 26, 2025

Accepted: September 18, 2025

Published: September 27, 2025

Keywords:

Waste bank

Clean and healthy living behavior

Mosque

Community empowerment

ABSTRACT

Objective: The objective of this study is to implement the concept of a waste bank as a novel solution to enhance clean and healthy living behaviors within the mosque environment. **Method:** The method employed in this study commenced with the delivery of PHBS education, followed by the implementation of PHBS practices, and culminated in the provision of a waste bank inventory. **Results:** The results of the study indicate an increase in awareness and participation among mosque members in maintaining cleanliness and effective waste management. This, in turn, supports a healthy and comfortable mosque environment for worship. **Novelty:** The promotion of clean and healthy living behaviors is of paramount importance for the enhancement of public health, particularly in places of worship such as mosques. The Muhammadiyah Mosque in Putat Village, Sidoarjo Regency, is confronted with challenges in waste management that have a detrimental effect on the cleanliness and comfort of the surrounding environment.

INTRODUCTION

Mosques, as centers of social and religious activities in Putat Village, also have the potential to serve as examples and drivers of behavioral change in the community regarding environmental cleanliness. The implementation of a Waste Bank in the mosque environment aims to strengthen the mosque's role in education and sustainable waste management practices, while simultaneously creating an independent funding source beneficial for community activities and mosque preaching [1].

The issue of waste management in the community remains an important matter affecting health and environmental cleanliness [2]. Poorly managed waste can lead to pollution, make places dirty, and trigger various diseases. Therefore, clean and healthy living behavior (PHBS) is crucial to maintain environmental cleanliness while improving public health.

The mosque environment, as a center of congregational activity, also has a strategic role in shaping clean and healthy behaviors in the community. The implementation of a Waste Bank at the Muhammadiyah Mosque, Putat Village, Sidoarjo Regency, is expected to be a solution to raise awareness of waste management and to change clean living behaviors within the mosque community.

One effective method of waste management is through a Waste Bank, which integrates the 3R principles (reduce, reuse, recycle) [3]. However, in the context of implementation in several mosques, the focus is on the reduce stage, i.e., reducing waste volume from the start [4].

The mosque environment, as a center of congregational activity, also has a strategic role in shaping clean and healthy behaviors in the community. The implementation of a Waste Bank at the Muhammadiyah Mosque, Putat Village, Sidoarjo Regency, is expected to be a solution to raise awareness of waste management and to change clean living behaviors within the mosque community, as well as a simple solution for waste management while strengthening the mosque's independent funds [5].

Partner Issues

1. Most household waste is mixed and ends up in disposal sites without proper sorting because the residents of Putat Village do not have the habit of separating and managing waste, especially plastic waste. Ultimately, this can cause environmental pollution and public health problems.
2. The economic potential of managing plastic waste in Putat Village has not been fully utilized because there is no system to convert plastic waste into additional income for residents while supporting environmental sustainability.

Problem Solutions

1. Provide continuous education on the importance of household waste sorting and establish a Waste Bank in the mosque or village as a facility to channel plastic waste for proper management and conversion into economically valuable products.
2. Establish a Waste Bank involving mosque administrators, youth organizations, and the village government to sell collected plastic waste to recycling industries or process it into creative products. This will ultimately create economic value and a culture of environmental awareness in the community.
3. This program aims to raise village residents' awareness about the importance of proper waste management. Through the provided education, it is hoped that residents understand the negative impact of poorly managed waste and the benefits that can be obtained from recycling. In addition, the program also focuses on mosque economic empowerment. With the Waste Bank, residents of Putat Village can earn additional income from selling inorganic waste, which will help increase mosque financial funds.

RESEARCH METHOD

The waste management program at Muhammadiyah Mosque, Putat Village, adopts a reduce system emphasizing educating congregants and surrounding communities to reduce the amount of waste, especially inorganic waste with economic value [6].

This counseling is conducted using the expository method, where the presenter delivers material about PHBS and maximizes the economic value of waste [7]. The participants or respondents targeted in this community service activity are the congregants of Muhammadiyah Mosque, Putat Village, with the following counseling stages:

a. Counseling and Socialization

1. Explanation of the importance of healthy living behavior and turning waste management into economic value while maintaining the surrounding environment.
2. Presentation of waste collection results from the reduce stage by congregants, which are then stored in the mosque's Waste Bank. The waste is subsequently sold to collectors as partners of the Waste Bank. The proceeds are used as mosque funds.

b. Practical Education

1. Utilization of the Waste Bank as a local solution to reduce plastic pollution.
2. Identification of inorganic waste with economic value.

RESULTS AND DISCUSSION

The results show a significant increase in the awareness of Putat Village residents regarding responsible waste management and clean living behavior in the mosque environment [8]. Clean and Healthy Living Behavior (PHBS) is a conscious, willing, and capable effort to maintain and improve health while preventing disease risk by actively participating in maintaining environmental cleanliness, reinforced by social learning processes that encourage the community to emulate good behaviors in their surroundings.

Qualitatively, mosque administrators reported that the mosque environment became tidier and cleaner, with a decrease in litter around the area. Continuous socialization and education also motivate congregants to apply clean living patterns at home and in the surrounding environment. This aligns with other community service findings related to the effectiveness of training and mentoring in Waste Bank-based waste management, encouraging residents to sort waste through economic incentives, thereby helping to form a new culture in waste management [9].

The Waste Bank concept makes the community aware that waste has economic value that can generate income, thus encouraging them to manage it—from sorting, composting, to turning waste into reusable and economically valuable items. Sorting activities in the Waste Bank reduce the amount of waste transported to the final disposal site (TPA). The Waste Bank is a center for collecting inorganic waste with economic value, including paper, plastic bottles, plastic cups, cardboard, packaging plastic, plastic bags, newspapers, sachet plastics, buckets, iron, aluminum, and others. This type of inorganic waste has different prices depending on its type [10].



Figure 1. PHBS counseling photo.

After implementation, the reduce system management at the Muhammadiyah Mosque Waste Bank in Putat Village successfully increased the amount of collected waste sold to waste collectors. This management is simple, without complicated processing, making it easy for administrators and volunteers to operate. In addition, mosque cash income from waste sales contributes positively to financial independence and supports sustainable waste management [11].

Furthermore, with the Waste Bank socialization activities in Putat Village, the community can also learn how to manage waste into items with economic value. Waste that has so far been largely overlooked by the community, typically regarded as something that produces unpleasant odors, is dirty, and disgusting. However, through socialization activities on waste management, such smelly and dirty waste, if properly managed, can have economic value as currently practiced by one of the waste banks, namely the Waste Bank in Putat Village.

Based on the conducted socialization, it is recommended that student community service activities on the importance of Waste Bank control continue both in Putat Village and in surrounding villages. In addition, it is expected that awareness and knowledge of proper waste management reach other villages around Putat Village so that the benefits of a clean environment and other positive impacts from proper waste management can be fully realized across all villages in Tanggulangin District, Sidoarjo Regency [12].

The Waste Bank can serve as a solution for the community to increase motivation in waste management. The Waste Bank facilitates waste management by selling waste to the Waste Bank [13]. The use of the reduce system in the Waste Bank at Muhammadiyah Mosque, Putat Village, has proven effective in reducing waste generation, utilizing the economic value of plastic waste, and improving clean and healthy living behavior [14].

These results confirm that the KKN-T Putat program plays a strategic role in building a community more concerned with environmental sustainability. Based on this success, the KKN Program in Putat Village, Tanggulangin District, is implemented with a focus on community empowerment through Islamic environmental education and sustainable development [15].

CONCLUSION

Fundamental Finding : The results of the activity showed a significant increase in the awareness of the people of Desa Putat regarding the importance of responsible waste management and clean living behavior in the mosque environment, with the Muhammadiyah Mosque Waste Bank successfully increasing the amount of waste collected and generating financial contributions for mosque independence. **Implication :** This implies that waste banks in mosque environments can function not only as instruments of environmental sustainability but also as sources of economic empowerment for communities and religious institutions. **Limitation :** However, household waste in Desa Putat was still largely mixed and the absence of systematic innovation in processing limited the potential benefits of waste management. **Future Research :** Therefore, it is suggested that student service activities regarding the Waste Bank be sustained and replicated in other villages so that clean environment benefits and economic value can be comprehensively achieved, while future studies may examine scalable models and innovative recycling technologies in community-based institutions.

ACKNOWLEDGEMENTS

1. To the Muhammadiyah community in Putat Village for their willingness to contribute to this activity.
2. To Universitas Muhammadiyah Sidoarjo for all parties' support, enabling the successful implementation of this PHBS program.

REFERENCES

- [1] Rodhi Akbar Ramadhan and Marwin Amirullah, "Analisis Program Bank Sampah Terhadap Peningkatan Ekonomi Masyarakat Di Tinjau Dari Hukum Ekonomi Syariah Di Kelurahan Ekajaya Kota Jambi," *Wasatiyah J. Huk.*, vol. 3, no. 1, pp. 1-18, 2023, doi: 10.70338/wasatiyah.v3i1.120.
- [2] W. I. Gunawan, "Potensi Pemberdayaan Angkatan Muda Masjid Al-Huda Dusun Randugunting Dalam Pengelolaan Sampah Rumah Tangga Sebagai Implementasi Sistem 3 R ...," *J. Bakti Saintek J. Pengabd. ...*, vol. 5, no. 2, pp. 65-74, 2021, doi: 10.14421/jbs.3588.
- [3] A. Z. Syaiful, M. Fikruddin, J. Jumadil, D. Akrim, and N. Anggraini, "Partisipasi Masyarakat Dalam Program Sedekah Sampah Di Masjid Raudatul Jannah Yayasan Khairu Ummah Makassar," *J. Ilm. Ecosyst.*, vol. 21, no. 2, pp. 395-404, 2021, doi: 10.35965/eco.v21i2.1131.
- [4] H. Bachtar, I. Hanafi, M. Rozikin, J. A. Publik, F. I. Administrasi, and U. Brawijaya, "Pengembangan Bank Sampah Sebagai Bentuk Partisipasi Masyarakat Dalam Pengelolaan Sampah," *J. Adm. Publik*, vol. 3, no. 1, pp. 128-133, 2015.
- [5] Didi Sunardi, "Bank Sampah Berbasis Masjid Studi Kasus Bank Sampah Masjid As-Sa'adah Desa Cileungsi Kidul Bogor," *Webinar Ilm. Masjid Ii*, p. 32, 2020.

- [6] T. Mahendra *et al.*, "Implementasi Kebijakan Pengelolaan Sampah Melalui Program Bank Sampah Di Kelurahan Sukarami," *J. GEMBIRA (Pengabdian Kpd. Masyarakat)*, vol. 1, no. 6, pp. 1852-1861, 2023.
- [7] K. Fikri, M. Ikhsan, N. A. Tamba, D. Fauziah, and Habiburrahman, "Pembentukan Bank Sampah Berkah (BSB) oleh Mahasiswa KKN Kelompok 67 Universitas Muhammadiyah Riau di Desa Lubuk Dalam," *J. Pengabd. UntukMu NegeRI*, vol. 7, no. 1, pp. 56-61, 2023, doi: 10.37859/jpumri.v7i1.4318.
- [8] W. T. Putra and Ismaniar, "Pemberdayaan Masyarakat Melalui Pengelolaan Sampah di Bank Sampah," *Jambura J. Community Empower.*, vol. 1, no. 2, pp. 1-10, 2020, doi: 10.37411/jjce.v1i2.569.
- [9] A. S. Suryani, "Peran Bank Sampah Dalam Efektivitas Pengelolaan Sampah (Studi Kasus Bank Sampah Malang)," *Aspirasi*, vol. 5, no. 1, pp. 71-84, 2014.
- [10] D. Prastyo, A. B. Purnomo, and T. I. Rahayaan, "Pelaksanaan Program Bank Sampah Dalam Sistem Pengelolaan Sampah Di Desa Jogodalu Kecamatan Benjeng Kabupaten Gresik," *Penamas Adi Buana*, vol. 01, no. 1, pp. 7-12, 2017.
- [11] M. F. Mubarak and Nase, "Pemberdayaan Masyarakat Melalui Program Bank Sampah pada Masyarakat DKM Nurul Iman Desa Padamulya Community Empowerment Through the Waste Bank Program in the Community of DKM Nurul Iman Padamulya Village," *Proc. Uin Sunan Gunung Djati ...*, vol. 1, no. 76, pp. 125-131, 2021.
- [12] F. W. Josiriz, E. J. Febriana, and S. Hardjati, "Optimalisasi Pengelolaan Sampah Desa Sumberjo Melalui Sosialisasi Bank Sampah," *J. Ilm. Wahana Pendidik.*, vol. 9, no. 20, pp. 257-267, 2023.
- [13] Y. Rinanto *et al.*, "Reaktivasi Bank Sampah Dan Pemberdayaan Masyarakat Di Kelurahan Ngroto Oleh Mahasiswa Kuliah Kerja Nyata (KKN) UNS Reactivation of the Waste Bank and Community Empowerment in Ngroto Subdistrict by UNS Community Work Lecture (KKN) Students," vol. 21, pp. 217-221, 2024.
- [14] H. Ismainar, H. Marlina, B. Afriza, and W. Atika, "Gerakan Mengurangi Sampah Plastik dan Resiko Membakar Sampah Dengan Pemberian Edukasi Kesehatan Melalui Penyuluhan," *J. Pengabd. Kesehat. Komunitas*, vol. 1, no. 3, pp. 188-195, 2021, doi: 10.25311/jpkk.vol1.iss3.1031.
- [15] A. Muslikha *et al.*, "Pelaksanaan Program Kuliah Kerja Nyata (KKN) sebagai Wujud Pengabdian kepada Masyarakat di Desa Lengkong Kabupaten Luwu Universitas Islam Negeri Palopo , Indonesia," vol. 3, no. 7, pp. 3380-3391, 2025.

***Nurul Azizah (Corresponding Author)**

Muhammadiyah University of Sidoarjo, Indonesia

Email: nurulazizah@umsida.ac.id
