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Implementation of a Sharia-Based Waste Bank as a Community Empowerment Model for Managing Economically Valuable Waste

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Abstrak

Permasalahan sampah membutuhkan pendekatan berbasis masyarakat yang tidak hanya berorientasi pada kebersihan lingkungan, tetapi juga pada peningkatan nilai ekonomi sampah. Kegiatan pengabdian ini bertujuan mengimplementasikan Bank Sampah Syariah sebagai model pemberdayaan masyarakat dalam pengelolaan sampah bernilai ekonomi. Pelaksanaan kegiatan menggunakan pendekatan partisipatif melalui sosialisasi, pendaftaran nasabah, pemilahan dan pengumpulan sampah, penimbangan, pencatatan transaksi, serta pendampingan masyarakat dengan melibatkan mahasiswa sebagai fasilitator. Hasil kegiatan menunjukkan terbentuknya mekanisme pengelolaan sampah yang lebih terstruktur melalui pemilahan kertas, botol plastik, dan botol kaca, disertai proses penimbangan dan pencatatan nilai sampah. Keterlibatan masyarakat dalam penyetoran sampah memperlihatkan bahwa bank sampah dapat menjadi sarana edukasi sekaligus pemberdayaan ekonomi. Implementasi Bank Sampah Syariah memperkuat partisipasi masyarakat dengan mengubah sampah dari materiaI buangan menjadi sumber daya yang memiliki nilai ekonomi dan manfaat lingkungan.
Kata kunci: ***bank sampah syariah, pemberdayaan Masyarakat, pengelolaan sampah, nilai ekonomi.***

Abstract

Waste management requires a community-based approach that addresses environmental cleanliness while increasing the economic value of recyclable materials. This community service activity aimed to implement a Sharia Waste Bank as a community empowerment model for managing economically valuable waste. The program applied a participatory approach through socialization, customer registration, waste sorting and collection, weighing, transaction recording, and community assistance, with students involved as facilitators. The results showed the establishment of a more structured waste management mechanism involving paper, plastic bottles, and glass bottles, supported by weighing and value-recording procedures. Community participation in depositing recyclable materials indicated that the waste bank could function as both an environmental education platform and an economic empowerment instrument. The implementation of the Sharia Waste Bank strengthened community involvement by transforming waste from discarded material into a resource with measurable economic and value.
Keywords : sharia waste bank, community empowerment, waste management, economic value.

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Introduction

Waste management remains an urgent environmental and public policy challenge in Indonesia because waste generation continues to increase while source reduction, sorting, recycling, and recovery remain insufficient. The urgency is reinforced by recent national reporting. The National Waste Management Information System recorded approximately 29.20 million tons of waste per year from 278 regencies and cities reporting data in 2025. Of this amount, only 32.90% was reported as managed, while 67.10%, equivalent to approximately 19.59 million tons per year, remained unmanaged (Ministry of Environment, 2025). These figures demonstrate that Indonesia cannot rely primarily on collection and final disposal. Stronger interventions are needed at the source, particularly at household and community levels, to prevent recyclable materials from entering mixed waste streams. This national challenge reflects a broader global concern. UNEP and ISWA (2024) projected that municipal solid waste generation could increase from about 2.1 billion tons in 2020 to 3.8 billion tons by 2050 without urgent action, while the environmental, health, climate, and economic costs of inadequate waste management would also increase. SIPSN Budiyarto et al. (2025) reported that the national recycling rate remains below 25%, while waste banks contribute only about 7% to recyclable waste management. Sage Journals Waste banks offer a practical mechanism by integrating sorting, collection, weighing, recording, and economic valuation. Recent experimental evidence further supports this approach. Bestari et al. (2026), using a cluster-randomized controlled trial involving 1,513 households across 20 community-based waste banks in Indonesia, found that monetary incentives, environmental information, and their combination increased recyclable deposits during intervention periods, with several effects continuing afterward. ScienceDirect This evidence shows that waste banks can function as behavioral platforms that encourage repeated source separation. Consequently, improving their operation and documenting community-based implementation remain relevant to current efforts toward circular waste management in Indonesia. This gap creates a clear need for practical evidence showing how community-based waste banks can translate national recycling objectives into routine sorting.

The effectiveness of waste banks depends strongly on sustained community participation because sorting, storing, and depositing recyclable materials are performed largely by individuals and households. Meidiana et al. (2021) identified six significant factors influencing participation in waste banks, including age, occupation, involvement in social activities, knowledge of sustainable development, distance from the waste bank, and access to 3R socialization. Their model showed that favorable combinations of these factors could substantially increase participation probability. Astuti et al. (2021) similarly reported that attitudes, subjective norms, perceived behavioral control, and knowledge were important in explaining participation intention among waste-bank customers in Sleman Regency. Sasana et al. (2022) further demonstrated that personal norms, service satisfaction, and behavioral intention are associated with recycling participation, reinforcing the need for community programs that build awareness and confidence in the service mechanism. The importance of upstream waste reduction is also evident in urban settings. Hartono et al. (2022) reported that Depok City generated more than 1,500 tons of waste per day, with a large proportion still transported to final disposal facilities, highlighting the need for stronger community-level reduction. Waste-bank implementation also benefits from collaboration among residents, local managers, government institutions, universities, and business partners. Fatmawati et al. (2022) showed that collaborative approaches

involving government, communities, and other stakeholders can strengthen waste-bank implementation and participation. Qomariyah et al. (2022) demonstrated that waste-bank development can improve community understanding of waste separation, administration, financial planning, and management responsibilities. More recently, Hermahayu et al. (2024) reported a 53% increase in management participation following socialization, training, mentoring, and organizational strengthening at the Tangguh Waste Bank. UNIMMA Journal Collectively, these studies indicate that effective waste banks depend on continuous participation, transparent services, institutional collaboration, and educational activities rather than on collection infrastructure alone. This evidence supports documenting implementation models that integrate these elements within practical community-service settings.

The development of a Sharia Waste Bank adds a distinct dimension to community-based waste management because it combines environmental management, economic value, social empowerment, and principles of responsible and transparent transactions. Masduqie et al. (2021) linked waste-bank operations with green-economy and maqashid-sharia principles, demonstrating that environmental and economic functions can be integrated within an Islamic framework. Miftahorrozi et al. (2022) further found that the Waste Bank of Malang contributed to socio-economic empowerment and aligned with maqasid al-shari'ah through waste reduction, recycling, financial incentives, and community welfare. MDPI These findings are relevant because the Sharia approach can provide an ethical and institutional basis for encouraging participation while ensuring that transactions remain accountable and directed toward shared benefits. Firdausi (2024) documented sustainable waste-management practices among active waste banks in Yogyakarta, while Budiyarto et al. (2025) emphasized the continuing potential of waste banks to strengthen household recycling despite their limited national contribution. Nevertheless, practical documentation of Sharia-based waste-bank implementation remains comparatively limited, particularly regarding how environmental education, customer services, recyclable-material transactions, student involvement, and community empowerment are integrated in day-to-day operations. The program examined in this community service activity involved community socialization, customer registration, recyclable-material collection, waste weighing, transaction recording, and student participation in service delivery. Promotional materials identified paper, plastic bottles, and glass bottles as the principal recyclable categories accepted. Customer registration was conducted from 19 to 23 October 2015, with service hours from 07:30 a.m. to 4:00 p.m. at Institut Sains & Teknologi AKPRIND Yogyakarta. Although the activity was implemented earlier, its documentation remains relevant because its operational components correspond directly with current priorities for source separation, behavioral engagement, transparent transactions, economic incentives, collaborative governance, and circular-resource recovery. Participants were positioned not merely as recipients of environmental information but as active actors who sorted, stored, and deposited recyclable materials with economic value, while the management team facilitated education, weighing, recording, and transactions.

Implementation Method

1. Program Design and Participatory Approach

The community service program was designed as a participatory waste-management intervention centered on the implementation of a Sharia Waste Bank at Institut Sains & Teknologi AKPRIND Yogyakarta. The activity positioned community

members not only as recipients of environmental information but also as active participants in sorting, collecting, and depositing recyclable materials with economic value. The program involved three main groups: community participants or prospective customers, the waste bank management team, and students who supported field implementation and service delivery. The intervention combined environmental education with a simple economic incentive mechanism so that recyclable materials could be recognized as resources rather than discarded waste. The program focused on three categories of recyclable materials documented in the activity, namely paper, plastic bottles, and glass bottles. Customer registration was conducted from 19 to 23 October 2015, while service activities were organized at the campus environment during operational hours from 07:30 a.m. to 4:00 p.m. The participatory approach was selected because the sustainability of a waste bank depends on repeated household or individual actions, especially waste separation at source and voluntary participation in depositing materials. Socialization therefore became the initial stage to introduce the purpose, procedures, and expected benefits of the program. The implementation model emphasized direct interaction between facilitators and participants so that questions regarding accepted waste types, weighing procedures, and recording mechanisms could be addressed during the activity. This design allowed the program to integrate education, practical experience, and economic motivation within one community-based waste-management process and strengthen responsibility for waste generation.

2. Implementation Procedures

The implementation was carried out through a sequence of practical activities that reflected the operational flow of a community-based waste bank. The first stage was socialization and promotion, during which participants received information about the objectives of the Sharia Waste Bank, the categories of recyclable materials accepted, and the procedure for becoming a customer. Promotional media were used to introduce the program and encourage participation among the campus community and surrounding residents. The second stage was customer registration, which created an administrative record for participants who intended to deposit recyclable materials. The third stage involved waste preparation and collection. Participants were encouraged to separate recyclable materials before bringing them to the service point. Materials received during the program included paper, plastic bottles, and glass bottles. At the service point, waste was checked according to category and weighed using the available equipment. The recorded weight served as the basis for determining the economic value of the deposited material according to the mechanism applied during the activity. The transaction was then documented so that each participant's deposit could be recorded systematically. Students assisted the management team during registration, receiving, weighing, and recording activities, allowing the program to function as both community service and experiential learning. The final stage consisted of direct assistance and communication with participants during transactions. This process reinforced correct sorting practices, familiarized participants with the service flow, and demonstrated that recyclable waste could be managed through a structured system that generated environmental and economic benefits for community participants directly.

3. Monitoring, Documentation, and Evaluation

Monitoring and evaluation were conducted using a process-oriented approach that focused on implementation and the forms of community involvement that could

be directly observed and documented. The evaluation did not rely on an experimental design because the main objective was to implement and describe a practical community empowerment model. Activity documentation, registration information, transaction records, and visual evidence from the service process were used to review whether the planned stages had been carried out. The main indicators included the implementation of socialization, availability of customer registration, participant involvement in delivering recyclable materials, classification of waste into accepted categories, completion of weighing procedures, and recording of deposited materials. Community participation was assessed descriptively through observable involvement in these stages rather than through pre-test and post-test measurement. The role of students was also documented because they assisted participants during registration, sorting, weighing, and recording. This involvement was considered important for strengthening communication between the program team and the community. The evaluation also examined whether the activity created a clear operational pathway from waste separation to economic valuation. The documentation showed that paper, plastic bottles, and glass bottles were managed through collection, weighing, and recording, indicating that the waste bank mechanism had been translated into practical service activities. Findings from the monitoring process were summarized descriptively to identify implementation strengths and aspects that could be improved in future programs, particularly participation continuity, administrative consistency, and expansion of recyclable material categories and service coverage. These indicators provided a practical basis for evaluating program implementation.

Result and Discussion

1. Community Outreach and Promotion of the Sharia Waste Bank Program

Community outreach was used as the initial stage to introduce the Sharia Waste Bank and provide practical information before participants became customers. Figure 1 presents three forms of communication used to support this process. As shown in Figure 1A, the printed promotional poster provided information on customer registration, service hours, location, and recyclable materials accepted by the program. Registration was announced for 19–23 October 2015, with service hours from 07:30 a.m. to 4:00 p.m. The poster also informed prospective customers that paper, plastic bottles, and glass bottles could be deposited. Figure 1B delivered the same concept through simpler visual messages by showing recyclable materials and connecting them with the opportunity to save waste and obtain economic value. This form of communication was important because participants needed to understand that recyclable materials were not merely discarded products. They could become resources within a structured waste-saving mechanism. Selomo et al. (2017), in a study involving 200 households in Makassar, found a significant relationship between community knowledge and participation in waste-bank saving activities. Meidiana et al. (2021) also identified the availability of 3R dissemination as one of six significant factors influencing community participation in waste banks. Their participation model produced probability values reaching 94.8% when all significant supporting factors were available. These findings indicate the importance of providing clear information about procedures and benefits before expecting active participation from prospective customers. In this program, promotional materials repeatedly introduced three accepted categories: paper, plastic bottles, and glass bottles.



Figure 1. Socialization and promotional activities of the Sharia Waste Bank program: (A) promotional poster and customer registration information; (B) visual campaign encouraging the community to deposit recyclable materials; and (C) program team involvement in media-based outreach

The outreach strategy was also developed through visual communication and media exposure to extend program information beyond direct registration activities. Figure 1B used an informal visual format that linked common household waste with financial incentives. Such messaging helped translate the concept of waste valorization into information that could be understood without technical terminology. Figure 1C documents the involvement of the Sharia Waste Bank team in media-based outreach at a local radio studio. This activity provided another communication channel for introducing waste sorting and the waste-bank concept to audiences outside the immediate service location. Evidence from Yogyakarta supports the relevance of knowledge and communication in developing participation. Astuti et al. (2021), based on respondents associated with 11 waste banks in Sleman Regency, reported that attitudes, subjective norms, perceived behavioral control, and knowledge variables jointly explained 73% of participation intention. Their study also found that intention explained 63% of active waste-bank behavior. Indrianti (2016), through a community-based waste-bank model in Sleman, used training and counseling to introduce the system and encourage voluntary participation among community members. A more recent community service program reported by Hermahayu et al. (2024) combined

socialization, training, and management guidance, with participation among waste-bank managers increasing by 53% following the intervention. In the present activity, printed posters, simple visual campaigns, and media-based communication were therefore applied as complementary outreach channels (Khairuni et al., 2026; Sutanhaji et al., 2026; Aphirta et al., 2026). Figure 1A provided detailed operational information, while Figures 1B and 1C documented the visual and media components used to introduce the program to prospective participants.

2. Community Outreach and Promotion of the Sharia Waste Bank Program

The operational process of the Sharia Waste Bank was organized through direct customer service followed by the measurement and recording of recyclable materials. Figure 2A shows the interaction between a customer and the waste bank teller at the service desk. This stage represents the administrative component of the program, where participants could obtain information and complete the required waste-saving procedures. A weighing scale was also available at the service point to support the transaction process. The use of a teller-based service system helped introduce a banking-like mechanism in which recyclable waste was treated as a resource that could be deposited and recorded. A similar operational model was reported by Indrianti (2016) in a community-based waste bank in Sleman, Yogyakarta. In that system, households acted as customers, delivered separated waste, and had their materials weighed and recorded in a logbook by the management team. Wijayanti and Suryani (2015) describe waste banks as community-based institutions that encourage people to consider waste as an economic commodity and a form of savings. This mechanism can strengthen community involvement because the economic value of recyclable materials becomes visible through an organized service process. Wulandari et al. (2017) also found that waste bank management can contribute to household economic benefits while supporting a cleaner local environment. Their study highlights the importance of an effective management mechanism and an appropriate pricing system in maintaining the economic function of a waste bank. In the present program, the customer service point provided a space where the management team and participants could interact directly during the administrative process shown in Figure 2A.





Figure 2. Operational activities of the Sharia Waste Bank: (A) customer service and administrative transaction process at the waste bank teller; and (B) weighing of recyclable materials before recording their economic value.

Waste weighing formed the next important operational stage because the amount of material deposited needed to be measured before its economic value could be recorded. Figure 2B illustrates a participant bringing recyclable material to the Sharia Waste Bank while members of the management team assist with the weighing process using a hanging scale. This activity made the conversion of waste into a measurable resource directly observable to participants. The procedure also provided an educational experience because customers could see how deposited materials were handled before entering the waste bank system. Miftahorrozi et al. (2022) reported that the Waste Bank of Malang operates through a structured mechanism that begins with waste sorting at the household level and continues through waste bank units and the central waste bank. Customers receive financial benefits from recyclable materials processed through this system. The study also links waste bank activities with socio-economic empowerment and maqasid al-shari'ah. Transaction recording is particularly relevant for a Sharia-oriented waste bank because transparent administration supports accountability between managers and customers. Masduqie et al. (2021) found that the Surabaya Central Waste Bank recorded every customer transaction as part of its operational service. The authors associated this practice with the protection of economic interests within the framework of maqashid sharia and with efforts to provide better service quality to customers. In the activity documented in Figure 2B, the weighing stage also involved direct assistance from student members of the Sharia Waste Bank team. Their participation supported the handling of materials and communication with customers during the service process. The operational sequence documented in Figures 2A and 2B therefore consisted of direct customer interaction, waste reception and administrative handling.



Figure 3. Community and student participation in the collection and handling of recyclable paper and cardboard materials as part of the Sharia Waste Bank activities

3. Community Participation in the Collection and Sorting of Recyclable Waste

Community participation became visible during the collection and handling of recyclable materials in the Sharia Waste Bank program. Figure 3 documents participants working together to move and prepare a large quantity of paper and cardboard for further handling. The activity provided a practical setting in which waste separation was connected with direct action rather than being presented only as an environmental message (Mawaddah et al., 2023; Imami et al., 2023). Participants were required to recognize recyclable materials, separate them from mixed waste, and place them within the collection stream used by the waste bank. This type of involvement is relevant because a waste bank depends on regular participation at the source of waste generation. Selomo et al. (2017), based on a survey of 200 households in Makassar, found a significant relationship between knowledge and community participation in waste-saving activities, with $p = 0.000$ and $\varphi = 0.643$. Their findings indicate that people are more likely to take part when they understand how the waste bank works and why separation is necessary. Meidiana et al. (2021) examined community involvement in waste separation and reduction through waste banks and identified six significant factors: age, occupation, participation in social activities, knowledge of sustainable development, distance to the waste bank, and the availability of 3R dissemination. The estimated probability of participation reached 94.8% when all supporting conditions were present. In Figure 3, the physical involvement of participants in handling paper and cardboard illustrates the practical participation expected after socialization and registration, where recyclable waste enters the operational process through collective handling and preparation.

Participation in collection also has an important behavioral dimension because repeated waste separation depends on individual intention, social support, and satisfaction with the service received. Astuti et al. (2021) studied customers from 11 waste banks in Sleman Regency and reported that attitude, subjective norms, perceived behavioral control, knowledge of how and what, and knowledge of

consequences jointly explained 73% of participation intention. The same study found that intention explained 63% of active waste-bank behavior. These findings are relevant to the activity shown in Figure 3 because the visible handling of recyclable materials represents an active form of participation rather than passive attendance. Indrianti (2016) also reported that a community-based waste bank in Sleman used training, counseling, system establishment, monitoring, and evaluation to encourage voluntary participation at different stages of waste management. High community participation supported the operation of the waste bank while contributing to economic, social, and environmental objectives. Sasana et al. (2022) further found that recycling participation among members of the Resik Apik Waste Bank was strongly associated with personal norms, satisfaction with services, and intention to act. For the Sharia Waste Bank program, the collection activity therefore served as a practical learning space where participants could connect environmental awareness with a specific action: preparing recyclable materials for the waste-bank system. The paper and cardboard shown in Figure 3 are materials with recoverable value when kept separate from residual waste. Direct participation in handling these materials also allowed to experience the physical workflow of community.



Figure 4. Community collaboration and environmental campaign involving the Sharia Waste Bank in the 2017 National Waste Awareness Program in Yogyakarta



Figure 5. Direct community outreach and environmental education conducted by the Sharia Waste Bank team in a residential community



Figure 6. Radio-based public outreach conducted by the Sharia Waste Bank team to disseminate information on waste management and community participation

4. Community Collaboration and Environmental Campaign through the Sharia Waste Bank

Community collaboration expanded the Sharia Waste Bank program beyond routine waste collection by connecting environmental education with public campaigns and direct outreach. Figure 4 documents the program's participation in the 2017 National Waste Awareness campaign in Yogyakarta, which promoted educational discussion and a community clean-up activity. This type of multi-stakeholder involvement is consistent with Wijayanti and Suryani (2015), who showed that collaboration among communities, government, private actors, schools, and universities can strengthen community-based environmental governance through waste banks. Fatmawati et al. (2022) also found that communication and collaboration among stakeholders were important elements in waste bank policy implementation in Makassar and Bantaeng. Community engagement was extended to the neighborhood level, as shown in Figure 5, where the Sharia Waste Bank team delivered face-to-face environmental education to residents. Indrianti (2016) reported that training and counseling supported voluntary participation in a community-based waste bank in Sleman, while Hermahayu et al. (2024) recorded a 53% increase in management participation after socialization, training, mentoring, and organizational activities. The program also used broadcast media to widen public communication. Figure 6 shows the Sharia Waste Bank team participating in a radio session at Istakalisa Yogya 96.2 FM, providing an opportunity to introduce waste separation and waste bank participation to audiences outside direct community meetings. The media component also broadened the program's communication setting beyond campus-based service activities. Qomariyah et al. (2022) similarly emphasized education, discussion, and practical assistance as important components of community empowerment through waste bank development, particularly for improving knowledge of sorting and management procedures.

Conclusion

The implementation of the Sharia Waste Bank demonstrated that community-based waste management can be developed not only as an environmental activity but also as a practical empowerment model that connects waste sorting, economic value, public education, and community participation. The main contribution of this program lies in the integration of a structured waste-bank service mechanism with outreach activities, direct community engagement, collaborative environmental campaigns, and media-based promotion. These activities helped participants understand that recyclable materials such as paper, plastic bottles, and glass bottles can be treated as resources with economic value rather than as discarded waste. The program also provided benefits by creating opportunities for residents and students to participate directly in waste collection, weighing, recording, and environmental education. From a theoretical perspective, the activity supports the concept that waste banks can function as instruments of community empowerment when environmental behavior, economic incentives, and participatory governance are implemented within one service model. Future community service activities should strengthen systematic monitoring by recording the number of active participants, the volume and value of collected waste, changes in participant knowledge, and the continuity of waste deposits over time. Further development is also recommended through wider community partnerships and stronger integration of Sharia principles into the operational and financial mechanisms of the waste bank.

References

Aphirta, S., Prayogo, W., Winandari, M. I. R., Notoprayitno, M. I., Yanidar, R., & Ersa, N. S. (2026). Pemberdayaan masyarakat melalui pengolahan limbah kotoran hewan menjadi pupuk organik berbasis waste to value di Kecamatan Ciambar. Jurnal Pengabdian Masyarakat, 4(1), 26–37. doi:10.59562/abdimas.v4i1.12384.

Astuti, R. D., Linarti, U., & Sa'ban, D. M. (2021). Supporting factors for community participation in the waste bank program: A study in Sleman Regency of Indonesia. *Jurnal Optimasi Sistem Industri, 20*(1), 33–41. doi:10.25077/josi.v20.n1.p33-41.2021.

Bestari, L. R., Goto, D., & Tran, D. (2026). The effects of monetary incentives and environmental information nudges on household waste sorting behavior: Experimental evidence from community-based waste banks in Indonesia. Resources, Conservation and Recycling, 232, 108991. doi:10.1016/j.resconrec.2026.108991.

Budiyarto, A., Clarke, B., & Ross, K. (2025). Overview of waste bank application in Indonesian regencies. *Waste Management & Research, 43*(3), 306–321. doi:10.1177/0734242X241242697.

Fatmawati, F., Mustari, N., Haerana, H., Niswaty, R., & Abdillah, A. (2022). Waste bank policy implementation through collaborative approach: Comparative study—Makassar and Bantaeng, Indonesia. *Sustainability, 14*(13), 7974. doi:10.3390/su14137974.

Firdausi, E. (2024). Implementation of sustainable waste management: A case study of waste banks in Kotabaru Village, Yogyakarta City. *Jurnal Ekologi, Masyarakat dan Sains, 5*(1), 60–65. doi:10.55448/jp07jg04.

Hartono, I. B., Chotib, Mulyono, S., & Astuti, D. W. (2022). Waste reduction strategy in upstream through community participation and modernisation of waste bank in Depok City, West Java Province, Indonesia. *International Journal of Science and Society, 4*(2), 333–345. doi:10.54783/ijsoc.v4i2.477.

Hermahayu, H., Amrul Haq, A. L., Faizah, R., Az Zahra, A., & Qomariyah, L. (2024). Building sustainability and community involvement at Tangguh Waste Bank. *Community Empowerment, 9*(1), 23–28. doi:10.31603/ce.10102.

Indrianti, N. (2016). Community-based solid waste bank model for sustainable education. *Procedia - Social and Behavioral Sciences, 224*, 158–166. doi:10.1016/j.sbspro.2016.05.431.

Imami, A. D., Algifari, M. H., Mufti, A. A., Yandra, I. N., Larasati, N. A., Zhabiyan, D. A., Maghrival, K., Marpaung, T. K., Sormin, E., Firmansyah, A., Awfa, D., Azizah, R. N., Suryawan, I. W. K., & Prayogo, W. (2023). Peningkatan penanganan sampah anorganik melalui digitalisasi operasional bank sampah di Kecamatan Candipuro, Lampung Selatan. International Journal of Community Service Learning, 7(3), 360–369. doi:10.23887/ijcsl.v7i3.64253.

Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia. (2024). *Sistem Informasi Pengelolaan Sampah Nasional (SIPSN): Capaian kinerja pengelolaan sampah tahun 2024*. Retrieved September 12, 2026, from the Sistem Informasi Pengelolaan Sampah Nasional. https://sampahnasional.kemenlh.go.id/portal-indikatif/data/timbulan-sampah?utm_source=chatgpt.com

Kementerian Lingkungan Hidup/Badan Pengendalian Lingkungan Hidup Republik Indonesia. (2025). Sistem Informasi Pengelolaan Sampah Nasional (SIPSN): Data timbulan dan pengelolaan sampah tahun 2025. Retrieved September 26, 2026, from the Sistem Informasi Pengelolaan Sampah Nasional. https://sampahnasional.kemenlh.go.id/portal-indikatif/data/timbulan-sampah?utm_source=chatgpt.com

Khairuni, Z. I., Yuzni, S. Z., Atika, L., Hutria, W., Putri, M. D., Yacub, M., Zulfikar, A., Khairunnisak, K., & Prayogo, W. (2026). Community empowerment through the development of interactive pop-up book media as a creative learning tool for early childhood education. Carmin: Journal of Community Service, 6(1), 175–190. doi:10.59329/carmin.v6i1.311.

Masduqie, M. H. A., Syarifudin, & Yudha, A. T. R. C. (2021). Green economy of waste bank in the perspective of maqashid sharia in Surabaya. *Jurnal Ekonomi Syariah Teori dan Terapan, 8*(5), 593–606. doi:10.20473/vol8iss20215pp593-606.

Mawaddah, N., Gultom, T., Suryawan, I. W. K., & Prayogo, W. (2023). Evaluasi pengolahan sampah organik pada Bank Sampah Dinas Lingkungan Hidup

(DLH) Kota Bandar Lampung. Environmental Engineering, 3(2), 95–105. doi:10.31284/j.envitats.2023.v3i2.4259.

Meidiana, C., Sekito, T., & Sasongko, W. (2021). Determining factors of community participation in waste bank. *IOP Conference Series: Earth and Environmental Science, 940*, 012085. doi:10.1088/1755-1315/940/1/012085.

Miftahorrozi, M., Khan, S., & Bhatti, M. I. (2022). Waste bank-socio-economic empowerment nexus in Indonesia: The stance of Maqasid al-Shari'ah. *Journal of Risk and Financial Management, 15*(7), 294. doi:10.3390/jrfm15070294.

Qomariyah, L., Annawaf, M. D., Lutfiani, Ristina, N., Aryani, Y. N., & Pamungkas, A. D. (2022). Empowering Geduang Village community through the establishment of a waste bank. *Community Empowerment, 7*(10), 1651–1658. doi:10.31603/ce.6872.

Qonitan, F. D., Suryawan, I. W. K., & Rahman, A. (2021). Overview of municipal solid waste generation and energy utilization potential in major cities of Indonesia. *Journal of Physics: Conference Series, 1858*(1), 012064. doi:10.1088/1742-6596/1858/1/012064.

Sasana, H., Wijayanti, D. L., Nurcahyanto, H., & Novitaningtyas, I. (2022). Analysis of village community recycle participation behavior to maintain environmental quality: Empirical evidence in waste banks in Indonesia. *Journal of Environmental Management and Tourism, 13*(5), 1416–1424. doi:10.14505/jemt.v13.5(61).17.

Selomo, M., Birawida, A. B., Mallongi, A., & Muammar, M. (2017). Bank sampah sebagai salah satu solusi penanganan sampah di Kota Makassar. *Media Kesehatan Masyarakat Indonesia, 12*(4), 232–240. doi:10.30597/mkmi.v12i4.1543.

Sutanhaji, A. T., Susilo, A., Hardoko, H., Rahardjo, S. S. P., Khotimah, M., Setyono, L., Hamada, I. F., & Prayogo, W. (2026). Penguatan BUMDes melalui diseminasi teknologi eco-enzyme dan pupuk organik untuk mendukung perencanaan TPS3R di Desa Tegalweru, Kabupaten Malang, Indonesia. Jurnal Pengabdian Masyarakat, 4(1), 6–20. doi:10.59562/abdimas.v4i1.12105.

United Nations Environment Programme (UNEP), & International Solid Waste Association (ISWA). (2024). Global Waste Management Outlook 2024: Beyond an age of waste—Turning rubbish into a resource. United Nations Environment Programme. https://wedocs.unep.org/items/36e16872-2f02-4447-a3c1-c939bf50ea92

Wijayanti, D. R., & Suryani, S. (2015). Waste bank as community-based environmental governance: A lesson learned from Surabaya. *Procedia - Social and Behavioral Sciences, 184*, 171–179. doi:10.1016/j.sbspro.2015.05.077.

Wulandari, D., Utomo, S. H., & Narmaditya, B. S. (2017). Waste bank: Waste management model in improving local economy. *International Journal of Energy Economics and Policy, 7*(3), 36–41.