

Empowering Sociopreneurs Through Community-Based Waste Banks: Business Opportunities with Social Impact

Memberdayakan Wirausahawan Sosial Melalui Bank Sampah Berbasis Komunitas: Peluang Bisnis dengan Dampak Sosial

Wahyuningsih Santosa*, Dwi Hartini Rahayu, Andreas Wahyu Gunawan, Masagus Asaari, &
Sanita Nurfadilah

Department of Management, Faculty of Economics and Business, Universitas Trisakti, Jl. Kyai Tapa No 1, Grogol, Jakarta 11440, Indonesia

Abstract

This community service program aims to develop the capacity of local communities to manage waste banks using a sociopreneurship approach, through participatory and educational strategies. The program was implemented in Tambun Selatan District, an area with significant potential for community-based waste management. The methods included public education, hands-on simulations, and intensive mentoring designed to enhance knowledge, skills, and community awareness about the economic value of waste. Results show an increase in participants' understanding of waste bank management and social entrepreneurship, along with the emergence of new community-based recycling initiatives. This activity contributed to strengthening the waste bank ecosystem, building social capital, and establishing a replicable model for environment-based social enterprises.

Abstrak

Program pengabdian kepada masyarakat ini bertujuan untuk mengembangkan kapasitas komunitas lokal dalam mengelola bank sampah melalui pendekatan sociopreneurship, dengan strategi partisipatif dan edukatif. Program ini dilaksanakan di Kecamatan Tambun Selatan, sebuah wilayah yang memiliki potensi besar dalam pengelolaan sampah berbasis masyarakat. Metode yang digunakan mencakup edukasi publik, simulasi langsung, dan pendampingan intensif yang dirancang untuk meningkatkan pengetahuan, keterampilan, dan kesadaran masyarakat terhadap nilai ekonomi dari sampah. Hasil kegiatan menunjukkan peningkatan pemahaman peserta mengenai manajemen bank sampah dan kewirausahaan sosial, serta munculnya inisiatif daur ulang berbasis komunitas yang baru. Kegiatan ini berkontribusi dalam memperkuat ekosistem bank sampah, membangun modal sosial, dan membentuk model usaha sosial berbasis lingkungan yang dapat direplikasi.

Keywords: *community empowerment, sociopreneurship, waste bank, social entrepreneurship, waste management*

1. Introduction

The waste management crisis in Indonesia is a pressing issue. In 2023, the country generated approximately 68.5 million tons of waste, yet only 10% was successfully recycled (KLHK, 2023). The majority of this waste ends up in landfills (TPA), posing environmental and public health risks. Sustainable solutions are urgently needed to address this challenge.

Waste banks have emerged as a community-based alternative for managing waste. These institutions not only function as centers for sorting and recycling but also provide incentives to residents for submitting recyclable materials. This system encourages active participation and raises awareness about waste as a valuable resource.

Evidence supports the effectiveness of waste banks in reducing waste volume. For instance, Bank Sampah Mabessa reportedly handles 44,256 tons of waste annually, processing materials such as plastic, metal, paper, and glass through

* Corresponding author:

E-mail address: wahyuningsih@trisakti.ac.id

the 3R principles—reduce, reuse, recycle (Juherah et al., 2025). Even in non-commercial settings, community-based waste management has achieved notable results; in Sanur Kaja Village, Denpasar, household waste volume was reduced by 22.5% daily from an average of 158 kg (Dewi et al., 2021).

To ensure long-term sustainability, waste banks must integrate social entrepreneurship or sociopreneurship, a model that pursues both economic gain and social impact (Soeharjoto et al., 2023; Yunus et al., 2021). Sociopreneurship strengthens the role of waste banks in improving livelihoods, particularly in marginalized communities. The sociopreneur model has proven effective in increasing household income through profit-sharing systems, creating new jobs, and empowering citizens in waste management (Mangindaan, 2021; Harahap et al., 2024).

A case study from Bank Sampah “Sawo Kencana” in Depok demonstrated that sociopreneurship not only reduces waste volume but also fosters community awareness and participation through a point-based incentive system (Colia et al., 2022). However, in Tambun Selatan Subdistrict, the implementation of sociopreneurship still faces several barriers.

The Waste Bank Forum of Tambun Selatan, led by Mr. Subandi, currently oversees only 45 waste bank units across three out of nine villages, falling short of its ideal goal of one unit per neighborhood (RW). The Forum has initiated economic activities such as recycling plastic into crafts and producing maggot and kasgot (organic compost), yet several challenges hinder program sustainability:

- a. Opportunity to enhance community awareness and participation in viewing waste management as a viable economic venture.
- b. Potential to strengthen managerial capacity and entrepreneurial competencies among waste bank operators through targeted training.
- c. Need to expand access to capital and sustainable funding mechanisms to support long-term operations.
- d. Opportunity to broaden market reach and enhance the competitiveness of recycled products through innovation and strategic promotion.

Addressing these challenges requires a strategic, community-empowerment approach. Therefore, this community service project, titled “Empowering Sociopreneurs through Community-Based Waste Banks,” was designed to promote the development of waste banks as sustainable socio-economic entities and to strengthen the broader ecosystem of community-based waste management in Tambun Selatan.

This program was conducted in Tambun Selatan, a densely populated subdistrict in Bekasi Regency, West Java. The local Waste Bank Forum has initiated various programs, such as upcycling plastic waste into crafts and cultivating maggot and kasgot (organic fertilizer) from organic waste. Despite these efforts, challenges remain, including low public awareness, limited entrepreneurial skills, and constrained access to funding and markets.

This community service initiative was designed to strengthen the managerial capacity and sociopreneurial potential of local waste bank stakeholders. Through a series of workshops, simulations, and mentoring sessions, the program sought to enhance community participation, promote environmental literacy, and catalyze community-based social enterprises. This paper presents the program implementation, observed outcomes, and reflections on community empowerment through sociopreneurship in waste management.

2. Methods

This community service program adopted a participatory and contextual approach tailored to the specific needs and dynamics of Tambun Selatan District. The method combined community engagement, education, skills development, and mentoring to promote sustainable behavior and build entrepreneurial capacity among local stakeholders.

2.1. Program Location and Participants

The program was carried out in Tambun Selatan, Bekasi Regency, West Java, where the Waste Bank Forum coordinates waste bank activities across nine villages. However, as of the implementation period, waste banks only operated in three of these villages, with 45 active units—far from the Forum’s target of establishing one waste bank in every neighborhood unit (RW). Participants in this program included waste bank managers, local residents (primarily women and youth), and community leaders who had shown interest in waste management and environmental entrepreneurship.

2.2. Stages of Implementation

This community service (*Pengabdian kepada Masyarakat/PkM*) program was conducted at the Tambun Selatan Waste Bank Forum in Bekasi on Thursday, January 16, 2025. The implementation consisted of the following phases:

- a. Planning Phase: Conducted in coordination with the head of the Tambun Selatan Waste Bank Forum to identify the main challenges and partner needs, including logistical requirements and necessary materials.
- b. Preparation Phase: Involved internal team coordination to assign roles and responsibilities, as well as the development of training materials.
- c. Implementation Phase: Training was delivered to participants using a tutorial-based method focusing on waste management, sociopreneurship, and practical business skills.
- d. Evaluation and Monitoring Phase: Carried out to assess the effectiveness of the intervention and identify the sustainability potential of the program's impacts.

2.3. Techniques of Community Engagement

Three main techniques were applied:

- a. Educational Sessions to build foundational knowledge on waste management and sociopreneurship.
- b. Simulation Activities for practicing technical and managerial skills related to waste bank operations.
- c. Mentoring and coaching to support business model development and institutional strengthening.

Evaluation Tools. Program impact was assessed through:

- a. Pre- and post-tests to measure knowledge improvement.
- b. Participant observation to assess engagement and practical skills.
- c. Informal interviews and feedback sessions with participants and organizers.

This method was selected to ensure that the intervention was not only informative but also transformative, enabling participants to apply their knowledge and continue developing their initiatives independently.

3. Results and Discussion

The PkM activity held on January 16, 2025, was attended by 30 waste bank managers affiliated with the Tambun Selatan Waste Bank Forum (Table 1). The participants were predominantly women (70%), reflecting the active role of women in environmental initiatives and community-based waste management. In terms of age, most participants fell within the 28–43 and over 59 age groups (each comprising 15%), indicating a diversity of age ranges that fosters intergenerational collaboration and shared experiences.

Educationally, most participants held Diploma degrees (25%), with a few holding postgraduate qualifications (5%). This suggests a foundational to advanced level of understanding, supporting their capacity to manage environmental and social entrepreneurship programs such as waste banks. Regarding occupation, the majority were housewives (45%) and entrepreneurs (20%), further reinforcing the community-driven nature of the waste bank initiative.

The training began with the distribution of a pre-test questionnaire to assess participants' understanding of sociopreneurship. The average pre-test score was 73 (min 40, max 100), indicating a generally good baseline of knowledge, especially among those with higher education backgrounds. However, some participants were unfamiliar with the term "sociopreneurship," highlighting the need for deeper conceptual training.

The training materials covered key sociopreneurship concepts and a step-by-step model for developing social enterprises in the context of waste banks. These steps included:

- a. Problem and Opportunity Analysis
- b. Business Model Planning
- c. Internal Capacity Building
- d. Product Innovation
- e. Marketing Strategies
- f. Partnerships and Networking
- g. Transparent Financial Management
- h. Monitoring and Evaluation

- i. Legal Compliance and Certification
- j. Documentation and Public Engagement

Table 1. Profile of Tambun Selatan Waste Bank Forum Members

Profile Category	Percentage (%)
Gender	
Male	30
Female	70
Age	
< 28 years	5
28–43 years	15
44–59 years	65
> 59 years	15
Education Level	
High School	35
Diploma	25
Bachelor's	35
Master's	5
Occupation	
Private Sector	15
Entrepreneur	20
Retired	20
Housewife	45

Participants actively engaged in discussions, expressing a strong interest in applying sociopreneurship to their waste bank operations. Ideas ranged from improving collaboration and social media promotion to expanding product offerings and financial planning. The enthusiasm underscored the program’s relevance and participant motivation to implement change.



Figure 1. Discussion on the Development of Sociopreneurship

A post-test was administered to evaluate knowledge improvement. The average post-test score was 92, reflecting a 26.02% increase from the pre-test. Wilcoxon signed-rank test results showed a statistically significant improvement ($Z = -4.146, p = 0.000$), confirming the effectiveness of the training.

Table 2. Pre-Test and Post-Test Comparison

	Pre-Test	Post-Test
Minimum Score	40	80
Mean Score	73	92
Maximum Score	100	100
K-S Test	1.561	1.730
Asymptotic Sig.	0.015	0.005
Wilcoxon Z Value	-4.146	
Significance (p)	0.000	

These findings further support the strategic importance of sociopreneurship training in empowering waste bank stakeholders and enhancing their ability to transform environmental challenges into sustainable socio-economic opportunities.

The implementation of the program produced significant results at the individual, group, and institutional levels. The key findings are categorized into knowledge improvement, behavioral change, entrepreneurial outcomes, and community impact.

Knowledge and Awareness Improvement. The pre- and post-tests conducted among 45 participants revealed a significant improvement in understanding waste management and social entrepreneurship. On average, participants' scores increased from 57.6 (pre-test) to 81.2 (post-test). Participants demonstrated greater awareness of waste classification, the environmental impacts of unmanaged waste, and the economic potential of recyclable materials. These results are consistent with prior research indicating that community education combined with contextual learning can substantially raise environmental literacy (Mulyana et al., 2021).

Entrepreneurial Capacity Development. Participants acquired practical skills such as sorting waste, basic bookkeeping, and crafting marketable recycled products—e.g., tote bags, flowerpots, and compost packaging. Several groups successfully launched pilot business initiatives including plastic weaving cooperatives and organic compost marketing. These outcomes illustrate the power of practice-based learning in stimulating entrepreneurial spirit and enabling communities to take initiative.

Strengthening the Waste Bank Ecosystem. Institutionally, the program contributed to enhancing the organizational structure and capacity of the Waste Bank Forum. Improved systems for documentation, reporting, and communication were established. The Forum also succeeded in expanding its network by engaging with local governments and micro-businesses. As a result, it drafted a two-year roadmap to scale up waste banks to six more villages, reinforcing collective action in line with community enterprise models.

Community Impact and Participation. A notable increase in active participation—particularly from women and youth—was observed. Participants expressed greater confidence in addressing environmental problems and demonstrated initiative in replicating workshop practices in their own neighborhoods. Informal interviews revealed improved collaboration, trust, and shared purpose, which reflect the strengthening of social capital.

These findings validate the strategic role of sociopreneurship as a practical and sustainable approach to waste management, while also fostering community empowerment. For long-term success, however, continuous mentoring, institutional partnerships, and access to funding mechanisms remain essential.



Figure 2. Mentoring and Coaching

4. Conclusions and Recommendations

The community service initiative implemented in Tambun Selatan has demonstrated that sociopreneurship can serve as an effective approach to improving local waste management practices while simultaneously fostering social empowerment and environmental stewardship. Through structured education, simulations, and mentoring, the program increased participants' knowledge, entrepreneurial skills, and confidence in initiating community-based waste enterprises. These outcomes were evident in both individual capacity development and institutional strengthening of the local Waste Bank Forum.

The integration of social and economic goals—core to the sociopreneurial approach—proved beneficial in transforming waste into valuable resources and in positioning community members as change agents. The active involvement of women and youth, the emergence of local ventures, and improved social capital reflect the transformative potential of participatory and values-driven programs.

Recommendations include:

- a. Sustaining the mentoring component post-program to support business growth and adaptation.
- b. Strengthening networks between waste banks, local governments, and market actors to secure institutional support and sustainability.
- c. Promoting the model in other regions with similar socio-environmental contexts as a replicable strategy for community-based sociopreneurship.

Future community service and research programs should continue integrating waste management, social entrepreneurship, and local governance to ensure long-term environmental and economic resilience.

Acknowledgements

Gratitude is expressed to the Community Service (PkM) partners - South Tambun Waste Bank Forum, DRPMF FEB Universitas Trisakti and LPPM Universitas Trisakti for all the moral and material support in the implementation of this PkM.

References

- Colia, R. S., Miguna Astuti, & Marlina, M. (2022). Manajemen Pengelolaan Bank Sampah Berbasis Sociopreneur Dalam Rangka Meningkatkan Ekonomi Keluarga Di Wilayah Limo Depok. *Jurnal Abdimas Indonesia*, 2(4), 493–502. <https://doi.org/10.53769/jai.v2i4.333>
- Dewi, N. P. A. P., Madrini, I. A. G. B., & Tika, I. W. (2021). Efektivitas Sistem Pengelolaan Sampah Berbasis Masyarakat (Studi Kasus: Desa Sanur Kaja Kota Denpasar). *Jurnal BETA (Biosistem Dan Teknik Pertanian)*, 9(2), 280. <https://doi.org/10.24843/jbeta.2021.v09.i02.p15>
- Harahap, M. A. K., Muhamad, L. F., & Suherlan. (2024). The Role of Waste Banks in Integrating Social and Business Activities for Community Income Improvement. *Jurnal Terobosan Peduli Masyarakat (TIRAKAT)*, 1(4), 221–229. <https://doi.org/10.61100/j.tirakat.v1i4.237>
- Juherah, J., Haidah, N., & Yunus, M. J. (2025). Efektivitas Manajemen Pengelolaan Bank Sampah Mabessa Berbasis Partisipasi Masyarakat Di kabupaten Bone. *Sulolipu: Media Komunikasi Sivitas Akademika Dan Masyarakat*, 25(1), 66–76. <https://doi.org/10.32382/sulo.v25i1.1310>
- Kementerian Lingkungan Hidup dan Kehutanan (KLHK). (2023). *Sistem Informasi Pengelolaan Sampah Nasional (SIPSN) Tahun 2023*. Jakarta: Direktorat Pengelolaan Sampah KLHK. Retrieved from <https://sipsn.menlhk.go.id>
- Mangindaan, D. (2021). Community services in Indonesia regarding waste handling and management: Mapping and bibliometric analysis. *International Journal Of Community Service*, 1(3), 344–357. <https://doi.org/10.51601/ijcs.v1i3.54>
- Soeharjoto, S., Ratnawati, N., Hubur, A. A., Sumiyarti, S., Santosa, W., Damayanti, S., & Tribudhi, D. A. (2023). KEWIRAUSAHAAN SYARIAH UNTUK KEMASLAHATAN BERSAMA. *E-Amal: Jurnal Pengabdian Kepada Masyarakat*, 3(3), 401-408. <https://doi.org/10.47492/eamal.v3i3.3071>
- Yunus, M., Moingeon, B., & Lehmann-Ortega, L. (2021). Building social business models: Lessons from the grameen experience. *Long Range Planning*, 43(2–3), 308–325. <https://doi.org/10.1016/j.lrp.2009.12.005> Edited Book Chapter References