

## **The Role of Waste Banks in Integrating Social and Business Activities for Community Income Improvement**

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### **Abstract**

Waste banks are an innovative solution for integrating social and business activities to improve community income while addressing environmental issues. This study is a literature review using a qualitative approach aimed at contributing to the community service literature. Data were sourced from Google Scholar covering the period from 2014 to 2024. From 25 articles found, 15 articles were selected based on strict relevance and quality criteria. Descriptive analysis shows that waste banks can improve community income through the management of economically valuable waste while promoting environmental awareness and community empowerment. Case studies such as the Malang Waste Bank, Gemah Ripah Waste Bank in Bantul, and Srikandi Waste Bank in Madiun show positive impacts on both social and economic aspects, including women's empowerment and job creation. However, the success of waste banks is heavily influenced by community participation, innovation, and ongoing policy support. This study recommends strengthening technology, strategic partnerships, and government incentives as steps to improve the effectiveness and sustainability of waste banks in the future.

**Keywords:** Waste bank, Social and Business Activities, Community Income

## **Peran Bank Sampah dalam Mengintegrasikan Kegiatan Sosial dan Bisnis untuk Peningkatan Pendapatan Masyarakat**

### **Abstrak**

Bank sampah merupakan salah satu solusi inovatif untuk mengintegrasikan kegiatan sosial dan bisnis guna meningkatkan pendapatan masyarakat sekaligus mengatasi permasalahan lingkungan. Penelitian ini merupakan tinjauan pustaka dengan pendekatan kualitatif yang bertujuan untuk memberikan kontribusi pada literatur pengabdian masyarakat. Data diambil dari Google Scholar dengan rentang waktu 2014–2024. Dari 25 artikel yang ditemukan, 15 artikel terpilih berdasarkan seleksi ketat terhadap relevansi dan kualitas. Analisis deskriptif menunjukkan bahwa bank sampah mampu meningkatkan pendapatan masyarakat melalui pengelolaan sampah yang bernilai ekonomi, sekaligus mendorong kesadaran lingkungan dan pemberdayaan komunitas. Studi kasus seperti Bank Sampah Malang, Bank Sampah Gemah Ripah di Bantul, dan Bank Sampah Srikandi di Madiun memperlihatkan dampak positif pada aspek sosial dan ekonomi, termasuk pemberdayaan perempuan dan penciptaan lapangan kerja. Namun, keberhasilan bank sampah sangat dipengaruhi oleh partisipasi masyarakat, inovasi, serta dukungan kebijakan yang berkelanjutan. Penelitian ini menyarankan penguatan teknologi, kemitraan strategis, dan insentif pemerintah sebagai langkah untuk meningkatkan efektivitas dan keberlanjutan bank sampah di masa depan.

**Kata kunci:** Bank sampah, Kegiatan Sosial dan Bisnis, Pendapatan Masyarakat

## **INTRODUCTION**

The issue of waste management has become an increasingly urgent global challenge, particularly in developing countries like Indonesia. Rapid population growth and urbanization have significantly increased waste production, leading to environmental, public health, and social welfare issues. In this context, community-based waste



management initiatives such as waste banks have emerged as innovative and effective alternative models. Waste banks help reduce waste that pollutes the environment and provide economic benefits to communities through a system of waste collection and recycling (Kurniawan & Nurhamidah, 2016).

A waste bank operates on a mechanism that allows people to exchange recyclable household waste for certain rewards, such as cash, savings, or daily necessities. This process creates economic value from waste that was previously considered useless. Additionally, waste banks serve as a platform for community empowerment by educating people on the importance of sustainable waste management (Sofyan & Soelfema, 2024). This activity generates a significant social impact by raising environmental awareness and empowering communities to play an active role in maintaining the cleanliness of their surroundings.

From a business perspective, waste banks integrate social and economic activities by building business networks that involve the informal sector, recycling entrepreneurs, and industries. Waste banks also act as a bridge between local communities and the recycling industry, where the collected waste is processed into raw materials that can be resold (Azzahrah & Lianto, 2024). This business model enables the creation of a consistent income stream for communities while supporting the development of a sustainable circular economy.

However, the success of waste banks faces several challenges, such as lack of infrastructure support, low community participation, and difficulties in building marketing networks. Despite this, many waste banks across Indonesia have shown positive results, such as the Malang Waste Bank (BSM) and the Gemah Ripah Waste Bank in Bantul, Yogyakarta. These models have successfully increased community income by utilizing waste as an economic resource.

In addition to economic impacts, waste banks also bring significant social benefits. These activities promote social inclusion by involving various community groups, including women, children, and marginalized groups, in waste management activities. The role of women in waste banks, for example, is often key to driving change at the community level (Alberta Prabarini et al., 2024). Waste banks also support gender empowerment agendas by providing opportunities for women to actively participate.

Furthermore, waste banks contribute to achieving sustainable development goals (SDGs), particularly in areas such as poverty reduction, decent work and economic growth, and climate action (Muhammad Rafel Emirruso Mauluddin et al., 2024). The implementation of waste banks is a concrete step towards supporting the transition to greener business practices while improving the living standards of local communities. Thus, waste banks serve as both an environmental solution and a model of socio-economic innovation.

However, research on the role of waste banks in integrating social and business activities to improve community income still needs to be expanded, particularly in understanding the dynamics of management, operational sustainability, and their impact on the local economy. Therefore, this study aims to analyze the role of waste banks in

integrating social and business activities as an effort to improve community income, focusing on management aspects, community empowerment, and their impact on enhancing economic welfare at the local level. This research is expected to contribute both academically and with practical recommendations for the development of more effective and sustainable waste bank models in the future.

### **Waste Bank**

A waste bank is a community-based institution or system that manages domestic waste by converting it into valuable economic resources (Suryani, 2014). In its operations, the community can deposit sorted waste to be exchanged for cash, savings, or other products as agreed upon. This concept serves as a solution to reduce waste in the environment while empowering the community through productive economic activities. Successful examples of waste banks include Malang Waste Bank, which has managed thousands of customers and provided dual benefits: a cleaner environment and additional income for the local community.

### **Social and Business Activities**

Social and business activities in the context of waste banks are integrated to achieve both environmental and sustainable economic goals. Socially, waste banks encourage active community participation in waste management, environmental education, and women's empowerment (Amalia & Indra Lestari Fauzi, 2021). From a business perspective, waste banks utilize waste as raw materials that are sold to the recycling industry or processed into economically valuable products such as handicrafts (Arwin Sanjaya 2023). This integration creates sustainable solutions that benefit the environment and provide economic opportunities for the community, as seen in the Gemah Ripah Waste Bank in Bantul, which successfully involved the community in productive waste management.

### **Community Income**

Waste banks have a direct positive impact on increasing community income (Devrihana T et al., 2024), particularly for groups that previously lacked access to formal economic activities. Community members can generate additional income to meet their daily needs by selling the waste they collect or processing it into creative products. An example of this is the Srikandi Waste Bank in Madiun, which prioritizes women's involvement in its operations, helping them earn additional income to support their families. This approach reduces financial burdens on families and strengthens the economic resilience of the local community.

## **METHOD**

This research is a literature review using a qualitative approach to contribute to the literature on community service, particularly in the context of waste bank management as an effort to integrate social and business activities to increase community income. A qualitative approach was chosen because this study aims to understand the relevant concepts, dynamics, and practices of the discussed issues through in-depth interpretation

of available data and literature. Data collection was carried out through the search of academic literature available on the Google Scholar platform, with a time range from 2014 to 2024. The search process used keywords such as waste bank, community-based waste management, circular economy, and community empowerment. Initially, 25 articles were found based on the search results. However, after a rigorous selection process that considered relevance, quality, and credibility, only 15 articles were used as primary data sources. The selected articles include theoretical studies, case studies, and empirical research findings related to the topic under discussion. The article selection process was carried out using specific criteria, such as articles being from indexed journals, having relevant geographical coverage, and discussing both the social and economic aspects of waste banks. Furthermore, priority was given to articles that discuss the impact of waste bank management on increasing community income, social innovation, and community empowerment. This ensures that the data used has high validity and relevance to support the research analysis.

Data analysis was performed descriptively, focusing on the organization and interpretation of information from the selected literature. This descriptive analysis aims to depict various aspects related to the role of waste banks, including management models, challenges faced, socio-economic impacts, and their contribution to community welfare. The analysis was conducted systematically to develop a conceptual framework that can be used as a foundation for the development of future waste bank management practices. To ensure the validity and reliability of the analysis, each piece of information taken from the articles was contextualized with real conditions in Indonesia. This was done to provide a more in-depth and relevant depiction of the application of the waste bank model in local communities. Data from the selected articles was comprehensively analyzed to produce a synthesis that explains the relationship between the integrated social and business activities through waste banks. The results of this study are expected to make a significant contribution to the literature on community service, particularly in understanding the potential of waste banks as instruments for economic and social empowerment. Additionally, the findings are expected to serve as a reference for practitioners, academics, and policymakers in developing more effective and sustainable waste management models in the future.

## **FINDING AND DISCUSSION**

Waste banks have emerged as an innovative solution integrating environmental conservation with community economic empowerment, offering a simple yet effective mechanism where residents can exchange household waste for cash or savings, thereby reducing waste while promoting financial literacy and ecological awareness. The Malang Waste Bank (Bank Sampah Malang, BSM) serves as a successful example of social transformation through community-based waste management. With over 30,000 customers, BSM has created an integrated system that processes waste into high-value products such as handicrafts, organic fertilizers, and recycled raw materials sold to industries, providing additional income for communities while fostering a circular

business ecosystem (Malang, 2018). This initiative has significantly reduced the volume of waste ending up in landfills, raised public awareness of responsible waste management, created new jobs, and inspired similar models in various cities across Indonesia, underscoring waste banks as pillars of sustainable development strategies.

Waste banks play a crucial role in transforming community behavior regarding waste management through community-based educational approaches that instill the habit of sorting waste at the source. This is exemplified by the Gemah Ripah Waste Bank in Bantul, Yogyakarta, which has successfully integrated economic benefits with social and environmental impact (Purwata, 2021). The initiative provides financial incentives to community members through savings from waste management and builds social capital in the form of collective awareness about environmental preservation. It has proven effective in creating cleaner and healthier surroundings. Gemah Ripah has driven a shift from a consumptive mindset toward sustainability, creating a domino effect that strengthens community participation in responsible waste management systems and supports the creation of a circular economy ecosystem through programs such as waste sorting training, environmental outreach, and collaborations with local governments and educational institutions.

From a business perspective, waste banks function as strategic connectors in creating profitable value chains, particularly through collaborations with the recycling industry, which bolster the local economy and support the circular economy. For example, the Bersinar Waste Bank in Bandung has established strong partnerships with plastic recycling businesses, ensuring the distribution of high-quality raw materials derived from professionally managed household waste (Elmira, 2022). These partnerships provide a stable market for processed waste products and create new business opportunities for local communities, such as waste collection, processing, and transportation services. Bersinar Waste Bank increases household incomes while reducing dependence on new natural resources, creating sustainable environmental and economic impacts by encouraging community participation as suppliers of recyclable materials and operators of micro-businesses based on waste management. This approach highlights waste banks as innovative platforms that integrate environmental responsibility with local economic drivers in a synergistic manner.

Waste banks also significantly contribute to gender empowerment, particularly by providing women with opportunities to engage in waste management activities, thereby enhancing their economic and social empowerment. The Srikandi Waste Bank in Madiun, for instance, actively prioritizes women in its operations, where they play a leading role in waste collection and management and contribute to developing more efficient management systems (Kuncoro, 2024). This empowerment enables women to earn additional income, improving their families' welfare, while enhancing their skills and confidence in resource management. Furthermore, through their involvement at various levels of activities, women in the Srikandi Waste Bank gain more strategic positions in decision-making, both at the household and community levels, leading to increased participation in social and economic aspects. This strengthens household economies and

supports cultural shifts toward inclusivity, where women have a greater voice in shaping community policies and practices, fostering more equitable and sustainable societies.

One of the primary challenges in ensuring the sustainability of waste banks is low community participation, particularly in areas where awareness of waste management's importance remains limited. However, the Gading Main Waste Bank in Jakarta provides a concrete example of how innovations in reward systems can effectively enhance community involvement (Febrinastri, 2019). This model successfully attracts community interest in waste management by offering points that can be exchanged for daily necessities, encouraging them to integrate waste handling into their daily habits. This innovation provides economic incentives while strengthening social bonds among community members as they feel valued for their contributions to maintaining environmental cleanliness. The model demonstrates how waste banks that integrate social and business aspects can create synergies that amplify their impact, both in terms of waste reduction and economic empowerment, ultimately making them more sustainable and impactful in the long term.

Beyond providing direct economic benefits, waste banks play a pivotal role in supporting the achievement of Sustainable Development Goals (SDGs), particularly in poverty reduction and decent job creation. For instance, the Mekarsari Waste Bank in South Jakarta has successfully engaged communities in waste management processes that generate additional income and create more stable employment opportunities for community members (Fachri, 2024). This waste bank reduces the environmental impact of waste and delivers broad social benefits through equitable profit distribution by involving residents in various stages of waste management, such as collection, sorting, and recycling. Mekarsari Waste Bank exemplifies how community-based solutions can contribute to broader development goals, such as poverty reduction, decent work creation, and improved quality of life. Moreover, this community-based approach strengthens social solidarity and accelerates the achievement of SDGs by creating an inclusive, sustainable, and community-driven economic system.

In the realm of education, waste banks serve as effective tools for instilling environmental awareness among children and teenagers through hands-on participation in waste management activities. For example, the Asri Waste Bank in Bali has successfully integrated environmental education programs in local schools, teaching the importance of waste sorting and facilitating students' direct involvement in processes such as collecting, sorting, and recycling waste (NusaBali, 2022). These programs provide young generations with a deeper understanding of the environmental impact of waste and their responsibility in maintaining cleanliness and sustainability in their surroundings. Additionally, by actively participating in these activities, students experience firsthand the benefits of efficient waste management, such as reducing landfill waste and creating useful recycled products. Thus, the Asri Waste Bank contributes to educating younger generations on proper waste management practices while fostering responsible environmental attitudes that will continue to grow over time, building a strong collective awareness for creating a more sustainable society in the future.

Overall, waste banks have proven to be an effective model in integrating social and business activities through community-based approaches, aiding in waste management while contributing to community economic empowerment and creating cleaner and healthier environments. Case studies across various regions in Indonesia demonstrate that waste banks can increase community members' income through rewarding systems and create new job opportunities, while their environmental impact is evident in the reduced volume of waste sent to landfills. However, to enhance their success, it is essential to expand collaborative networks between waste banks, recycling businesses, governments, and the private sector to strengthen their operational sustainability. Additionally, increasing public education on the importance of waste management and environmental sustainability is necessary to boost community participation. Policy support from the government is also key to allowing waste banks to expand further, with incentives or regulations encouraging efficiency and sustainability in their operations. Through these efforts, waste banks can continue to deliver greater benefits, both economically and environmentally, while fostering collective awareness that supports sustainable development at both local and national levels.

## **CONCLUSION**

Waste banks have proven to play a strategic role in integrating social and business activities to increase community income while addressing environmental issues caused by domestic waste. Waste banks can create collective awareness, empower communities, and build a beneficial economic value chain by utilizing a community-based approach. Case studies such as the Malang Waste Bank, Gemah Ripah Waste Bank in Bantul, and Srikandi Waste Bank in Madiun demonstrate that this initiative can simultaneously provide economic, social, and environmental benefits. However, the success of waste banks heavily relies on community participation, policy support, and innovation in operational management.

This study provides several important implications. Theoretically, waste banks can serve as an effective model in studies of waste management based on a circular economy and community empowerment. Practically, governments and community organizations can utilize the findings of this study to design policies and programs that support the sustainability of waste banks, such as offering incentives, public education, and facilitating partnerships with the private sector. Socially, waste banks have the potential to improve community welfare and strengthen solidarity through productive and sustainable collaborations.

The recommendations provided address five key aspects to support the sustainability of waste banks. First, intensive education and socialization are needed to increase public understanding of the importance of waste management through waste banks, which will significantly boost community participation. Second, strengthening technology and innovation is a strategic step, where waste banks can adopt digital technology to simplify transaction recording, reporting, and operational transparency. Third, strategic partnerships between the government, industry, and community organizations are

necessary to strengthen the sustainability ecosystem of waste banks, including through the development of high-value recycled products. Fourth, product diversification based on recycling can offer an opportunity for waste banks to reach a broader market and provide additional income for local communities. Finally, local governments need to support the sustainability of waste banks by providing incentives such as grants, training, or subsidies that can drive more efficient and competitive management.

This study has several limitations that should be considered. First, the data used is solely from articles available on Google Scholar, which may not cover other relevant literature from non-academic sources. Second, this literature review focuses only on the period from 2014 to 2024, which may limit the historical perspective on the development of waste banks. Third, since this is a literature review, no direct empirical data was generated to strengthen the analysis. Fourth, the geographical diversity of the case studies used may not fully represent the situation across all regions of Indonesia. For future research, it is recommended to involve empirical data, expand the literature scope, and explore international contexts to gain a more comprehensive understanding.

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