Pena Dimas : Jurnal Pengabdian Masyarakat V**ol.** 4 **No** 1, Page. 51-62
DOI : http://dx.doi.org/10.33474/penadimas.v4i1.29148 **e-ISSN :** 2964-7789

Social Enterprise Development Strategy through Ecobrick Production and Creative Marketing Campaigns: A Study of Srikandi Waste Bank

Anggita Rayi Larasati[1*], Asmi Ayuning Hidayah[2], Isti Riana Dewi[3], Telma Anis Safitri[4]

[1] Department of Law, Faculty of Law, Universitas Jenderal Soedirman , Central Java, Indonesia,
[2,3,4] Department of Management, Faculty of Economics and Business, Universitas Jenderal Soedirman, Central Java, Indonesia
* Corresponding Author(s) Email : isti.dewi@unsoed.ac.id

Article Info

Article History:
Received : 14/08/2025
Reviewed : 16/09/2025
Revised : 17/09/2025
Accepted : 12/10/2025

Keywords:
Creative Marketing;
Skrikandi;
Social Entreprise;
Waste Bank;

Abstract

The Srikandi Waste Bank in Petir Village, Kalibagor, has faced challenges in managing waste due to limited human resources, insufficient managerial skills to apply science and technology, and inadequate infrastructure. As a result, unprocessed waste accumulates, occupying space and disrupting operations. To address this issue, community service activities were implemented, including training in the production of ecobricks and other marketable recycled products, the introduction of simple waste management technologies, and the optimization of storage spaces. These activities were complemented by post-training support, particularly in the use of social media for online marketing. The methodology adopted was the Asset-Based Community Development (ABCD) model, which emphasizes leveraging existing community resources and capacities. This approach enabled participants to apply newly acquired skills in creating added value from waste materials. The outcomes demonstrated increased production of ecobricks and creative recycled products, improved use of social media for marketing, and better organization of operational spaces. The synergy of this program has strengthened local waste management systems, contributed to environmental protection, and enhanced economic opportunities for the community. This aligns directly with several Sustainable Development Goals (SDGs): SDG 8 (Decent Work and Economic Growth) through the creation of green entrepreneurship opportunities; SDG 11 (Sustainable Cities and Communities) by fostering environmentally responsible waste practices; and SDG 12 (Responsible Consumption and Production) through the promotion of recycling and waste reduction. The program's outcomes illustrate how community empowerment and the adoption of simple, replicable technologies can effectively support sustainable rural development and contribute to achieving global sustainability targets.

INTRODUCTION

Indonesia, as an archipelago and one of the most densely populated countries in the world, faces increasingly complex waste management issues. Indonesia needs to find solutions to its waste management problems immediately, especially given its relative economic growth and increasingly consumptive consumption patterns. Data from the Ministry of Environment and Forestry of the Republic of Indonesia (KLHK RI) estimates that from 2018 to 2023, Indonesia will produce 69.7 million tons of waste. This figure is certainly not insignificant. There is a high possibility that this is a reflection of one of the more extreme waste management situations in the country (Nugroho, 2025).

The strategy of implementing the concept of "waste reduction, reuse, and recycling" (3R) as a solution where the system begins, in this case, the village. This has been proven by Yuliana and Wijayanti (2019) as one of the more successful strategies at the village level. The concept of a waste bank for this purpose is one of the main instruments remaining from the development of a climate management system for waste with an emphasis on the 3R system (reuse, reduction, and recycling) for waste models. Optimal waste management requires public awareness and cooperation from various related parties with the aim of reducing the volume of waste disposed

of in final disposal (Widiyanti & Susanti, 2024). However, the implementation of these 3R activities is still hampered, mainly by the lack of public awareness of the importance of waste sorting (Wulandari & Sugiana, 2014). In fact, according to other opinions, public awareness of the importance of protecting the environment has great potential in community-based waste management (Rinwantin et al., 2025).

Kalibagor Village is an area with a fairly high population density. Most of the residents are family workers, whose activities generate a significant volume of household waste every day. The waste generated consists of organic waste, such as food scraps and leaves, as well as inorganic waste, such as plastic, paper, and metal. However, the lack of waste management facilities means that most of this waste ends up in landfills or even pollutes the surrounding environment. Petir Village in Kalibagor Subdistrict is one of the villages that has made efforts to form community self-help groups, specifically to assist in the management of waste banks.

The purpose of a waste bank is to manage household waste, raise public awareness, and create economic value from waste processing. The Heroine Waste Bank functions as a collection point for waste that has economic value, such as plastic, paper, and metal, which is then sold to collectors at varying prices. The proceeds from sales are used to support the waste bank's operations or are reallocated to the community that deposits waste. However, despite being operational, the waste bank's function is still far from optimal due to a number of problems faced by its managers.

One of these is the participation of the surrounding community. Community participation in waste management is the most important aspect that needs to be considered in an integrated waste management system. Community participation in a development process is divided into four stages, namely: participation in the planning stage, participation in the implementation stage, participation in the utilization of development results, and participation in the supervision and monitoring stage (Wardany et al., 2020). The presence of waste banks is expected to encourage capacity building for the community by fostering independence and self-sufficiency through the development of awareness, knowledge, and skills that encourage participation in managing the environment in their neighborhood. For women in particular, knowledge and skills in waste management have stimulated creativity and innovation in waste recycling (Asteria & Heruman, 2016).

These community empowerment activities emphasize the importance of understanding community needs and ways to solve problems faced by the community by considering the potential that exists in their environment lingkungannya (Fatimah et al., 2024). Appropriate strategies tailored to the needs of each individual in the community are needed so that empowerment programs can run optimally (Putra et al., 2022). In supporting the Indonesian government's program that focuses on community-based waste management, we intend to provide solutions to these problems through the three pillars of higher education, namely community service. This activity focuses on optimizing sustainable waste bank management to add economic value, especially for the surrounding population. This program is aimed at the Srikandi waste bank partner in Petir Village, Kalibagor, with an approach that utilizes digital technology and innovative recycled products for the production of ecobricks. This effort is expected to support sustainable waste management while improving the welfare of the local community through the creation of added value from processed waste.

The novelty of this program, compared to previous community service programs focused on ecobrick production, is that it offers significant innovation compared to existing conventional waste management programs. Most previous community service programs focused on waste collection, sorting, and recycling into crafts or compost, as well as education related to digital-based waste management or social entrepreneurship concepts. However, few specifically integrate ecobrick technology and methods as an environmentally friendly plastic waste management solution that can be directly applied by communities at the household level.

The main gap lies in the innovative technique of plastic waste management through ecobricks, which not only reduces the volume of plastic waste but also provides added value in the form of practical and economical alternative building materials. This program provides added value for community empowerment by involving the active participation of community members,

http://dx.doi.org/10.33474/penadimas.v4i1.29148

especially housewives, in the ecobrick production process, thereby increasing their awareness and involvement in environmental preservation and developing local economic potential.

Furthermore, this program fills the gap in direct education on ecobrick production, which was previously lacking in standard waste bank programs. This approach is an original and relevant innovation in the context of sustainable community-based waste management. Thus, this community service program makes a significant new contribution to waste management, particularly in terms of the creative and sustainable use of plastic waste in the community, a practice that has not been widely implemented in previous waste bank programs.

IMPLEMENTATION METHODS

The implementation methods used in these community service activities tend to use a program implementation approach to address community (partner) issues, namely Asset-Based Community Development (ABCD) (Astawa et al., 2022). This is a community empowerment activity that focuses on utilizing the potential of a particular community or group. These assets can be economic, physical, social, and skills possessed by individuals or community groups. The ABCD approach was developed by John McKnight and Jody Kretzmann. ABCD aims to help communities discover, understand, and utilize their economic, environmental, physical, non-physical, and social assets to solve problems and strengthen local capacity. The implementation of the ABCD method in PKM can be done through socialization, training, and implementation of technology, guidance and evaluation, as well as program sustainability.

The partner in this program is Bank Sampah Srikandi Desa Petir, a community-based waste management institution that has been active but faces limitations in human resources, facilities, and management skills. This program involves 20 members of the Srikandi Waste Bank as key participants, with a focus on capacity building through training, mentoring, and the application of simple waste management technologies. Activities carried out on July 21, 2025, included outreach, training in the production of economically valuable products such as ecobricks, creative marketing through social media, and storage space optimization.

The program is being implemented in Petir Village, Kalibagor District, Banyumas Regency, which is the operational area of the Srikandi Waste Bank. This program is designed to strengthen community-based waste management capacity while positioning the Srikandi Waste Bank as a model for sustainable environmental management at the village level. The stages of the community service program implementation include socialization, training, and implementation of technology, guidance and evaluation, as well as program sustainability.

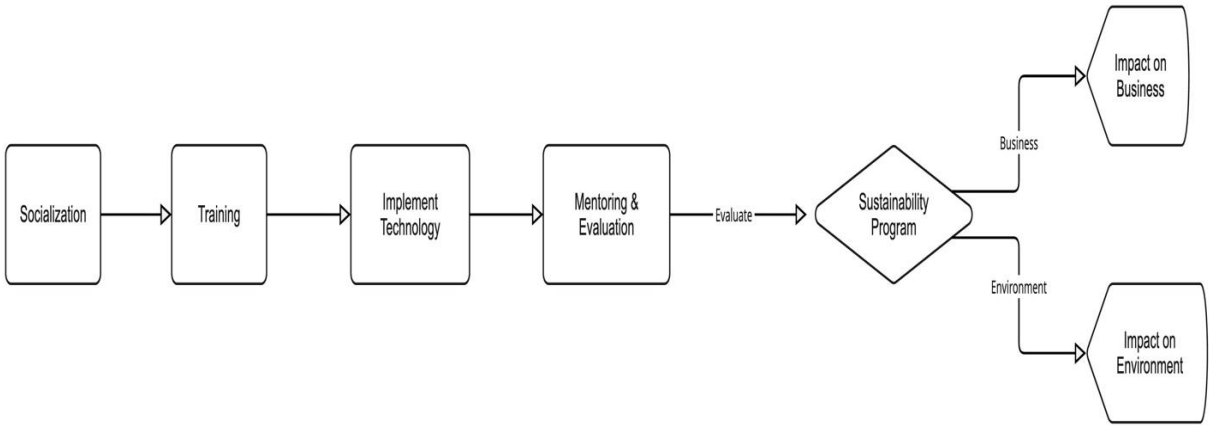

Figure 1. Implementation Stages of Community Service Activities

The stages include, first, the socialization stage. The community service team conducts socialization with partners or target communities, namely the Srikandi Waste Bank Group in Petir Village. The socialization activity aims to introduce the program being implemented, the benefits of the program, and the steps that will be taken during the activity. At this stage, the community service team also explores additional needs of the partners so that the program can be implemented in accordance with the actual conditions of the partners. The second stage is

training. At this stage, the community service team conducts training on how to process plastic waste collected by villagers into value-added items. The product produced is an ecobrick, which is a craft made from used plastic bottles filled with plastic waste. The house stairs are cut into small pieces (Astuti et al., 2025). Once several units have been produced, it is hoped that the surrounding community can use their work to make useful household furniture such as tables, shelves, etc.

The material presented is (a) Understanding the basics of Ecobrick production. The Ecobrick technique is the utilization of plastic bottles filled with non-biological waste, especially plastic, and processed into construction materials or other crafts. (b) Ecobrick production techniques include the process of sorting clean and dry plastic waste, cutting it into small pieces, compacting it into plastic bottles until full, and utilizing it as environmentally friendly material or crafts with economic value (Arumi et al., 2022). Furthermore, (c) consistent use of digital platforms for processed market results. In this case, platforms such as Instagram, Shopee, or Tokopedia can be used to market existing creative products.

The third stage of technology implementation involves the use of advanced devices and systems designed to support the effective management of the Srikandi Waste Bank. This stage is crucial as it provides management support technology, which is the core of the system, to be fully integrated and functional within the waste management framework. These supporters are equipped with digital technology systems that facilitate efficient workflows in waste collection, recording, and reporting. This technology improves the automation of routine, repetitive tasks that are prone to error, enhances overall data management as well as stakeholder communication and interactivity, and promotes good coordination among the target audience. Furthermore, to ensure the effective adoption and use of digital tools, partners and personnel undergo comprehensive training sessions. This training covers not only the working mechanisms of the digital platform, but also the systems for handling, separating, and converting waste into ecobricks and other valuable products. Such training increases the confidence and skill acquisition of many relevant users in minimizing errors and maximizing operational effectiveness.

The integration of creative marketing campaigns in the implementation phase has and will continue to educate potential participants through conservation actions and strengthening social engagement in the community. Education in this case aims to motivate and encourage active participation in ecobrick production and collaboration with local partners. Utilizing its social power and digital media, Bank Sampah Srikandi has introduced and continues to promote to the community an innovative sustainable development model that goes far beyond simply reducing waste, as well as empowering and dynamizing a caring and responsive economy that is responsive to the environmental conservation movement. These coordinated and joint efforts by various parties play a very important role in achieving long-term goals related to sustainability and the development of waste banks. Furthermore, in mentoring and evaluation, the phases that are carried out simultaneously are inseparable and serve to assist partners in implementing effective mentoring and evaluation strategies in the final stage of the active service program, where collaboration has been established with the pangar team to realize the effective execution of the training results from the planning. At this stage, supporters continue to provide guidance and assistance to partners, along with their efforts to produce processed products with high economic value at the upstream of the industry (Prastiwi et al., 2024).

The community service team works with partners to: (a) Create business accounts on digital platforms. First, they help partners create and manage business accounts on various digital platforms, which serve as vital channels for product visibility, customer engagement, and sales growth in today's digital economy. (b) Create product photos. Second, the team supports partners in producing high-quality photographic representations of their products. These visual assets are essential for attracting potential customers and effectively communicating the value and uniqueness of the products. (c) Optimize the use of digital features for promotion and sales. Finally, the mentoring process includes optimizing the use of digital features such as social media tools, online promotions, and e-commerce functions. The strategic use of these digital marketing and sales tools empowers partners to expand their market base, increase product sales, and build sustainable business growth. Fifth, the sustainability of the program is implemented through multi-stakeholder engagement and partnerships, both with the government and academia, to achieve

http://dx.doi.org/10.33474/penadimas.v4i1.29148

sustainability. This program is expected to be sustainable from a business and environmental perspective. The Ecobrick product business can operate with a focus on environmental awareness.

RESULTS

The result of this community service activity is the optimization of the Srikandi Waste Bank in Petir Village as a model of sustainable environmental management that can support the welfare of the local community (Widyaningyun & Tukiman, 2022). The program participants consisted of members of the Waste Bank, Srikandi administrators, and members of the PKK in Petir Village, Kalibagor District. All participants were women aged 26-55 years, as shown in Table 1. Most of them were housewives who were actively involved in community empowerment activities in their respective villages. In addition, the participants have diverse backgrounds in terms of organizational experience and environmental awareness, which contributes positively to the implementation of the program. These characteristics reflect a relevant target group and support the success of the development program.

Table 1. Participants

Description	Total	Percentage	Description of Participant Characteristics
Total Participants	20	100%	All participants reside in Petir Village, Kalibagor District, Banyumas Regency
Gender	20	100%	All participants are women, consisting of PKK members and Srikandi Waste Bank administrators with diverse social backgrounds but a high level of environmental awareness.
Age Range 26-30 Years	5	25%	Participants are young, generally new to social activities and enthusiastic about learning ecobrick techniques and digital marketing.
Age Range 31-35 Years	6	30%	Participants are of productive age, have organizational experience at the PKK level, and are active in waste bank management.
Age Range >35 Years	9	45%	Participants are mature adults, mostly experienced housewives with a high level of concern for the environment and program sustainability.

This activity was carried out in several stages, as described above: socialization, training, technology implementation, mentoring and evaluation, and program sustainability. The first stage, socialization, was carried out successfully according to the activity plan. This increased the knowledge of the women managing the waste bank regarding the importance of managing waste to make it more valuable so that it can be reused as household items or sold. The media used was brochures distributed to all members to make it easier to understand during the socialization process. The benefits of socialization related to ecobrick production include reducing plastic waste that cannot be sold to collectors, providing environmentally friendly alternative construction materials, and increasing public awareness of waste management (Isnaeni et al., 2023).

Table 2. Description of Activities

Documentation Photo	Describtion
	Marketing socialization of ecobrick products
	Ecobrick production training
	Training output in the form of social media management
	Output of waste management in the form of ecobricks
	Application of Science and Technology at Heroine Waste Bank

The second stage was training in implementation, with demonstrations on how to make ecobricks, followed by hands-on practice with the women who run the Srikandi Waste Bank. This training included elements of science and technology, namely simple waste management technology known as the 3Rs (reuse, reduce, and recycle), which focuses on the production of ecobricks and the use of digital platforms to market creative processed products. One of the platforms used is Instagram. The equipment for ecobrick production consists of an iron frame designed for producing finished ecobricks measuring 2m x 1m, a board bearing the words “Bank Sampah” Srikandi Petir measuring 60cm x 30cm, stationery for making crafts, and plastic waste such as beverage bottles or household packaging collected from residents around Petir Village.

http://dx.doi.org/10.33474/penadimas.v4i1.29148

This activity further enhances technical skills in plastic waste management, which is a plus so that it can be implemented independently or re-socialized to other groups in Petir Village as a development of their programs in the future.

In the third stage, namely technology implementation, a waste bank management support system was provided through the e-commerce platform Instagram and a symbolic waste bank signboard. The community service team created social media accounts that did not previously exist to be used effectively for creative digital-based marketing or future campaign activities to be carried out by the Srikandi Waste Bank managers. Furthermore, the community service team demonstrated how to use the platform so that participants could better understand how to use it. The training covered topics such as methods for creating digital content (videos and photos) and uploading them to Reels. This activity increased technological literacy, visibility, and the economic value of waste processing, as well as expanding the market for recycled products (Utomo et al., n.d.). The members of the mothers' group can apply this regularly to develop the programs they plan every day. In addition, the addition of facilities and infrastructure such as ecobrick waste bank signs and shelves symbolizes that the waste bank organization is active again and ready to carry out community empowerment activities related to waste management in Petir Village and its surroundings.

The fourth stage, namely assistance and evaluation, ensures that partners can carry out the socialization and training provided by the community service team from Unsoed related to waste management into a plus mark through ecobrick production and the use of the Instagram digital platform for creative marketing. The court team is willing to assist if there are obstacles in its implementation. Furthermore, evaluation is conducted through observation and interviews. Based on the evaluation results of the Srikandi Waste Bank program, the following is the level of satisfaction of participants in the Srikandi Waste Bank program:

Table 3. level of satisfaction of participants in the Srikandi Waste Bank program

Indicators	Aspects Assessed	Satisfaction Percentage
Program Usefulness	The material is considered relevant to the daily needs of participants (waste management, ecobricks, digital marketing).	**78%**
Clarity of Delivery	The material is delivered clearly, systematically, and is easy to understand, including hands-on practice.	**74%**
Practical Benefits	The program provides real solutions that can be applied to reduce plastic waste and increase income.	**70%**
Facilitator Performance	Facilitators are communicative, interactive, and responsive to participants' questions.	**80%**
Average Satisfaction	Participants' participation in the program is generally considered successful in increasing motivation and engagement.	**76%**

Based on participant interviews regarding satisfaction levels, more than 50% were likely to feel satisfied after participating in this activity. Specifically, satisfaction indicators showed an average satisfaction level of 76%, indicating that the majority of participants were satisfied with the program. The aspect with the highest score was facilitator performance (80%), meaning that communication and interaction methods were effective. The aspect with the lowest score was practical benefits (70%), indicating that some participants still need further assistance to optimize the implementation of new skills. The level of active participation was also evident from the enthusiasm of participants in asking questions and discussing during the training, as well as their willingness to apply the results of the program to their respective environments. These results show that the program was well received and succeeded in achieving its objectives of increasing participants' knowledge and motivation. The combination of high satisfaction levels and positive qualitative feedback confirms the relevance and effectiveness of the community service activities carried out.

The enthusiasm shown by the participants demonstrated their willingness to go beyond the training objectives by collaboratively answering even questions that were outside the scope of the training module. Next, there was a transition to the program sustainability phase (Salinger et al., 2024). Based on the image of a waste bank with a signboard, this is a symbol of Srikandi Waste Bank's commitment to integrating smart science into waste management activities that have been socialized by the team. The results of this initiative are equivalent to the implementation of RDF activities on unprocessed waste fuel, which has proven to be effective upstream and requires a multi-level empowerment strategy that integrates decentralized technical waste management infrastructure and participatory governance involving private, state, and civil society partnerships (Afnan et al., 2025).

DISCUSSION

The discussion of the community service program at the Srikandi Waste Bank in Petir Village can be framed by linking its practical outcomes with relevant theoretical frameworks and success indicators commonly used in community empowerment and sustainable waste management programs. Program success indicators include increased community knowledge and awareness, skills development, appropriate technology application, digital marketing adoption, and sustainability commitment (Ramdhani et al., 2024). The first stage, socialization using brochures, effectively increased the awareness of women managing the waste bank about the importance of turning waste into valuable items such as ecobricks. This is in line with community empowerment theory, which emphasizes awareness raising as an important first step towards social change (Shodikin, 2025). The impact of socialization in reducing plastic waste and promoting environmentally friendly construction materials also meets important environmental sustainability metrics.

Training activities on the application of ecobricks in production by women apply the 3R waste management concept (Reduce, Reuse, Recycle) based on the theory of sustainable resource utilization (Utami et al., 2023). Vania & Fikriah (2023). describe the use of digital platforms, such as Instagram, to market products as an adoption of modern technology where marketing operates in a digitalized economy and social visibility in society is socialized at the grassroots level. Using practical metal frames for forming ecobricks and for collecting plastic waste illustrates the application of appropriate technology in a simple and effective way to increase operational capacity.

The implementation of the third stage of technology, with Digital Content Creation and e-Commerce Platform Development, has expanded the market for ecobrick banks. This has reinforced the economic empowerment component of the program (Fetterman, 2019). Investments in physical infrastructure, such as signage and symbolic racks for the community, strengthen the organization's identity and presence. This is important in social capital development theory, which links the physical with collective social efficacy. Mentoring and evaluation ensure knowledge transfer and program adjustment, with over 50% participant satisfaction as an indicator of overall program success that measures stakeholder engagement and perceived value (Coleman et al., 2019). Ongoing mentoring also exemplifies best practices in social innovation by providing continuous support to overcome implementation challenges.

For sustainability, the program's symbolic commitment through signage and an established digital marketing presence are important milestones that demonstrate the institutionalization of good practices (Faruq et al., 2024). To further sustain impact, the literature suggests that strengthening local networks, diversifying revenue streams from recycled products, and formalizing partnerships with local governments or NGOs can increase long-term sustainability and community resilience (Hermans et al., 2011). In summary, the community service program at Bank Sampah Srikandi demonstrates the successful integration of awareness raising, practical technology application, social media adoption, and ongoing mentoring rooted in relevant community development and sustainability theories, as reflected in positive social change and program sustainability indicators.

http://dx.doi.org/10.33474/penadimas.v4i1.29148

Program success indicators (awareness, skills, technology, sustainability), practical implications (the model can be replicated to strengthen waste banks), and theoretical implications (contribution to the literature on community empowerment and the circular economy). The first indicator, awareness, shows that socialization and education through brochures, training, and digital campaigns have succeeded in increasing public understanding of the importance of waste management. Behavioral changes were evident in the increased participation of housewives in ecobrick production and their active involvement in discussions during training. The second indicator, skill development, shows that the ecobrick production training program and the use of digital platforms improved technical skills (ecobrick production, waste sorting, crafts) as well as non-technical skills (digital literacy, creative marketing). Participants became more skilled in processing plastic waste into value-added products. The third indicator, technology adoption, shows that the adoption of simple technologies (ecobrick production tools, storage racks) and digital technologies (Instagram accounts for promotion, e-commerce) strengthened the institutional capacity of waste banks. This demonstrates the integration of appropriate and applicable technology at the village level. The final indicator, sustainability, is ensured through symbolization (waste bank signboards), ongoing digital marketing strategies, and partnerships with multiple stakeholders (government, academics). The community's commitment to utilizing ecobricks as an alternative construction material also strengthens the long-term environmental and economic aspects.

Collectively, these findings show that the program has successfully met its main success indicators, including increased knowledge and awareness, improved technical skills, adoption of appropriate technology, and commitment to sustainability. Practically, this implies that similar waste bank initiatives can replicate the model of gradual socialization, direct training, digital marketing integration, and continuous mentoring to strengthen community-based waste management systems and generate economic value from waste. Theoretically, this program contributes to the literature on community empowerment and sustainable waste management by demonstrating that combining awareness raising, participatory technology implementation, and digital economic engagement drives behavioral change and institutional capacity building. This integrated approach can inform future models for community-based circular economy interventions in rural areas.

The implementation and outcomes of the Srikandi Waste Bank program demonstrate a clear linkage with the Sustainable Development Goals (SDGs), particularly SDG 8 (Decent Work and Economic Growth), SDG 11 (Sustainable Cities and Communities), and SDG 12 (Responsible Consumption and Production). The empowerment of women through training, increased awareness, and skill enhancement aligns with SDG 8, as it promotes inclusive economic participation and the creation of green livelihoods in the local community. By enabling participants to transform waste into ecobricks and creative recycled products, the program generates additional income sources while fostering entrepreneurial capacity at the grassroots level. The integration of simple and appropriate technologies, such as practical ecobrick molds, and the adoption of digital marketing platforms also support SDG 12, emphasizing sustainable consumption, recycling innovation, and responsible production patterns. Furthermore, improvements in waste storage organization, infrastructure, and the establishment of digital visibility through signage and social media presence embody SDG 11, contributing to sustainable and resilient community development. These results illustrate how local empowerment initiatives can operationalize global sustainability principles, turning waste management challenges into opportunities for socio-economic growth, environmental preservation, and strengthened community resilience. Thus, the Srikandi Waste Bank program not only fulfills theoretical indicators of empowerment and sustainability but also exemplifies practical progress toward achieving multiple SDGs through community-driven innovation.

CONCLUSION

The implementation of this community service activity was carried out successfully. The activity achieved its targets by creating economically valuable recycled products, utilizing social media for creative marketing, providing additional storage facilities, and documenting the results. Several stages of the activity were carried out, including a socialization activity that resulted in a

deeper understanding of waste management, a training activity on ecobrick production and the creation of an Instagram account for creative marketing, an IPTEK application activity that resulted in technical skills in product manufacturing and digital-based creative marketing, a mentoring and evaluation activity that resulted in partner satisfaction levels, and a sustainability activity that resulted in planning for the next program. The only obstacle encountered was a lack of coordination between the community service and partnership teams prior to the event. However, this did not interfere with the activities during the event. Recommendations for future activities include continuing this program at a later date with a different method so that it is not only related to ecobrick production but can also include other programs relevant to waste management in Petir Village, such as the procurement and training in the use of plastic waste shredding machines to accelerate waste processing (Ratri et al., 2023). In addition, future programs could involve other parties who have not yet been involved, such as academics from other fields or other parties who can support the sustainability of the Srikandi Waste Bank organization.

ACKNOWLEDGMENTS

This community service activity was supported by LPPM Unsoed through the PKM IPTEKS Application Program in 2025. We, as the drafting team, would like to express our gratitude for all the support provided by the grant program so that it can be useful in empowering the community, especially the Srikandi Waste Bank group in Petir Village. This activity ran smoothly as planned. Hopefully, the results of this community service will not only provide tangible benefits to the community but also contribute positively to the development of science and empowerment practices that can continue through other programs in the future.

ETHICAL CONSIDERATIONS

This research was conducted in accordance with the publication and research ethics guidelines of Pena Dimas: Journal of Community Service and the COPE Code of Ethics. Community research activities were carried out with integrity and transparency. Data collection and analysis were conducted responsibly, and proper citations were included to avoid plagiarism. No part of this manuscript has been published elsewhere or is under consideration by another journal. There was no manipulation of data or images that could mislead the findings.

CONFLICT OF INTEREST

In preparing this paper, I declare that there is no conflict of interest related to the publication of this paper.

FUNDING

This community service was funded by LPPM Unsoed through the IPTEKS development community service program No. 14.27/UN23.34/PM.01/V/2025. The funds provided were instrumental in facilitating data collection, analysis, and dissemination activities. The author expresses gratitude for this support, which enabled the successful completion of this research without influencing the design, implementation, or reporting of the research.

REFERENCES

Afnan, D., Wijaya, M., Kartono , DT, & Wibowo, A. (2025). Model pemberdayaan masyarakat dalam program pengelolaan limbah bahan bakar berbasis sampah di Indonesia. *Cleaner Waste Systems* , *12* , 100364. https://doi.org/10.1016/j.clwas.2025.100364

Arumi , ER, Adani, SI, Almuqorrobin , AR, Cahya , YRT, Widiyati , A., & Astuti , RP (2022). Pemanfaatan pemasaran digital sebagai media pemasaran produk kerajinan daur ulang limbah. *Pemberdayaan Masyarakat* , *7* (1), 158–164. https://doi.org/10.31603/ce.4316

Astawa , IPM, Pugra , IW, & Suardani , M. (2022). Pemberdayaan Masyarakat Lanjut Usia dengan Pendekatan Asset Based Community Development (ABCD) di Dusun Kawan Desa Bakas Kabupaten Klungkung . *Bhakti Persada Jurnal Aplikasi IPTEKS* , *8* (2), 108–116. https://doi.org/10.31940/bp.v8i2.108-116

Asteria, D., & Heruman , H. (2016). Bank Sampah Sebagai Alternatif Strategi Pengelolaan Sampah Berbasis Masyarakat Di Tasikmalaya . *Jurnal Manusia Dan Lingkungan* , *23* (1), 136–141. https://doi.org/10.22146/jml.18783

Astuti , AY, Setiawan, DP, & Fitriani , S. (2025). Kelayakan Eco-Bricks sebagai Produk Daur Ulang di Bank Sampah Yogyakarta. *Jurnal Internasional Inovasi Sistem Perusahaan* , *9* (1), 1–9. https://doi.org/10.25124/ijies.v9i01.644

Coleman, EA, Manyindo , J., Parker, AR, & Schultz, B. (2019). Keterlibatan pemangku kepentingan meningkatkan transparansi, kepuasan, dan aksi sipil. *Sustainability Science* , *116* (49), 24486–24491. https://doi.org/10.7910/DVN/DEGFVP

Faruq, U., Subairi , S., Mubarak, R., Rachman , TH, & Alif, S. (2024). Optimalisasi Tiktok Dan Whatsapp Business: Pelatihan Digital Marketing Untuk Meningkatkan Penjualan Pengrajin Batik Di Desa Klampok . *PENA DIMAS: Jurnal Pengabdian Masyarakat* , *3* (1). https://doi.org/10.33474/penadimas.v3i1.25033

Fatimah, F., Wardana , A., Fazura , A., & Irfansyah , A. (2024). Pemberdayaan Masyarakat Melalui Pelaksanaan Perlombaan 17 Agustus di Lingkungan Desa Sait Buttu Saribu Kecamatan Pamatang Sidamanik . *Jurnal Pemberdayaan : Publikasi Hasil Pengabdian Kepada Masyarakat* , *3* (1), 1–10. https://doi.org/http://doi.org/10.47233/jpmittc.v2i2.1451

Fetterman, D. (2019). Evaluasi pemberdayaan: pendekatan pelibatan pemangku kepentingan. Dalam *Health Promotion Journal of Australia* (Vol. 30, Edisi 2, hlm. 137–142). John Wiley and Sons Inc. https://doi.org/10.1002/hpja.243

Hermans , FLP, Haarmann , WMF, & Dagevos , JFLMM (2011). Evaluasi partisipasi pemangku kepentingan dalam pemantauan pembangunan berkelanjutan regional. *Perubahan Lingkungan Regional* , *11* (4), 805–815. https://doi.org/10.1007/s10113-011-0216-y

Isnaeni , I., Ramadhania , A., Pauji , LY, Pian, FO, Syabani , RN, Anggraini , N., Hartini , S., Sholikha , N., Anggraini , ND, Hasibuan , BNK, & Martahayu , V. (2023). Inovasi Ecobrick : Solusi kreatif untuk mengurangi sampah plastik di Desa Kacung . *Pemberdayaan Masyarakat* , *8* (11), 1923–1928. https://doi.org/10.31603/ce.10637

Nugroho, S. (2025, 22 Juni). *KLH-BPLH Tegaskan Arah Baru Menuju Indonesia Bebas Sampah 2029 dalam Rakornas Pengelolaan Sampah 2025* . Kementerian Lingkungan Hidup Hidup .

Prastiwi , PI, Meikhati , EM, Wahyuningtyas , AW, & Kristanti , BDA (2024). Pelatihan Pengelolaan Bank Sampah Untuk Meningkatkan Pendapatan Keluarga Ibu Dawis Bougenville Masaran Sragen . *PENA DIMAS: Jurnal Pengabdian Masyarakat* , *3* (1). https://doi.org/10.33474/penadimas.v3i1.26008

Putra, AR, Permana , BRS, & Panulisan , BS (2022). Pemberdayaan Masyarakat Melalui Pengurangan Sampah Rumah Tangga Berbasis Produk Daur Ulang di Desa Margatani , Kecamatan Kramatwatu , Kabupaten Serang . *Jurnal Internasional Keterlibatan dan Pemberdayaan (IJE2)* , *2* (1), 43–51. https://doi.org/10.53067/ije2.v2i1.46

Ramdhani , LS, Riyanto , A., Farlina , Y., Noviani , H., & Muttaqin , MZ (2024). Pelatihan Digital Marketing Dalam Upaya Pengembangan Pemasaran Produk Bank Sampah IPPEC Kabupaten Sukabumi . *Abditeknika Jurnal Pengabdian Masyarakat* , *4* (2), 65–71. https://doi.org/10.31294/abditeknika.v4i2.4347

Ratri , WS, Astuti , A., & Permatasari , DAI (2023). Pemberdayaan Desa Melalui Program Ekonomi Sirkular dan Hijau Melalui Pengelolaan Sampah Mandiri. *Jurnal Pemberdayaan Masyarakat Madani (JPMM)* , *7* (2), 230–241. https://doi.org/10.21009/JPMM.007.2.06

Rinwantin , R., Izzaty , KN, Pujiastuti , Y., Yuliana, R., & Wahyuni , AN (2025). Optimalisasi Bank Sampah Sebagai Upaya Pemberdayaan Ekonomi Dan Pelestarian Lingkungan . *Jurnal Pengabdian Masyarakat Bhinneka* , *3* (4), 361–367. https://doi.org/10.58266/jpmb.v3i4.160

Salinger, AP, Charles, I., Francis, N., Batagol , B., Meo-Sewabu , L., Nasir, S., Bass, A., Habsji , H., Malumu , L., Marzaman , L., Prescott, MF, Jane Sawailau , M., Syamsu , S., Taruc , RR, Tela, A., Vakarewa , I., Wilson, A., & Sinharoy , SS (2024). “Masyarakat kini bekerja sama demi kebaikan bersama”: Pengaruh desain partisipatif infrastruktur sanitasi tingkat komunitas di permukiman informal perkotaan terhadap modal sosial. *World Development* , *174* , 106449. https://doi.org/10.1016/j.worlddev.2023.106449

Shodikin , KAHAH (2025). Upaya Peningkatan Kesadaran Masyarakat terhadap Lingkungan Hidup melalui Kegiatan Program CSR Berbasis Pemberdayaan (Studi Kasus: Desa Donan , Kabupaten Cilacap). *Radiant* , *5* (3), 241–254. https://doi.org/10.52187/rdt.v5i3.294

Utami , A., Santi, P., Al Bahij , A., & Fahma , YA (2023). Dampak Penggunaan Ecobrick dalam Program 3R (Reduce, Reuse, Recycle) terhadap Pengetahuan Pengelolaan Sampah Siswa SD. *Prosiding Seminar Internasional dan Penelitian Bersama* , 47–54. https://jurnal.umj.ac.id/index.php/ISJR/

Utomo , MN, Pratiwi , SR, & Setyawan [3] , FH (nd). *Meningkatkan Efisiensi Ekonomi Melalui Daur Ulang Sampah dan Modernisasi Manajemen Bank Sampah* . https://ijcsnet.id. https://doi.org/10.51601/ijcs.v4i1.249

Vania, A., & Fikriah , NL (2023). Optimalisasi Pemasaran Digital Kreatif Untuk Keberlanjutan Umkm : Penggunaan Google Business Dan Whatsapp Business. *PENA DIMAS: Jurnal Pengabdian Masyarakat* , *2* (1). https://doi.org/10.33474/penadimas.v2i1.22916

Wardany , K., Permata Sari, R., & Mariana, E. (2020). Sosialisasi Pendirian “Bank Sampah ” Bagi Peningkatan Pendapatan Dan Pemberdayaan Perempuan Di Margasari . *Dinamisi : Jurnal Pengabdian Kepada Masyarakat* , *4* (2), 364–372. https://doi.org/10.31849/dinamisia.v4i2.4348

Widiyanti , N., & Susanti , FE (2024). Pembentukan Bank Sampah Larahan Migunani Sebagai Solusi Pengelolaan Sampah Di Dusun Sidorejo, Kelurahan Ngestiharjo , Kecamatan Kasihan , Kabupaten Bantul DIY. *Jurnal Pengabdian Kepada Masyarakat* , *3* (11), 2199–2208. https://doi.org/10.53625/jabdi.v3i11.7622

Widyaningyun , DN, & Tukiman , T. (2022). Pengelolaan Bank Sampah Srikandi untuk Mewujudkan Kampung Hijau dan Bersih di Desa Latukan Kecamatan Karanggeneng Kabupaten Lamongan . *Jurnal MODERAT* , *8* (3), 486–499. https://doi.org/10.25157/moderat.v8i3.2721

Wulandari , F., & Sugiana , K. (2014). *Evaluasi Prospek Keberlanjutan Pengelolaan Sampah Di Bank Sampah Studi Kasus Bank Sampah Di Kota Makassar* .

Yuliana, I., & Wijayanti , Y. (2019). Partisipasi Masyarakat pada Program Bank Sampah Info Artikel. *Jurnal Penelitian dan Pengembangan Kesehatan Masyarakat Higeia* , 545–555. https://doi.org/10.15294/higeia/v3i4/30681