



Empowering Women through Training in Making Recycled Products from Household Waste to Increase Family Income

Adhitya Ardhana Saputra¹, Sukmawati Dewi², Adiatama³

¹⁻³ Universitas Ibn Khaldun (UIKA), Indonesia

Article History:

Received: September 05, 2025;

Revised: September 26, 2025;

Accepted: October 09, 2025;

Published: October 31, 2025.

Keywords: Creative Economy; Empowerment; Household Waste; Recycled Products; Women's Training.

Abstract: This community service activity aims to empower women through training in making recycled products from household waste to increase family income. The program was designed to enhance participants' skills, creativity, and environmental awareness by transforming waste materials into valuable and marketable products. The method applied includes several stages: socialization, skills training, mentoring, production practice, and evaluation. Participants were actively involved in identifying types of household waste that can be reused, designing creative products, and learning basic marketing strategies for home-based businesses. The findings indicate that the training improved participants' understanding of waste utilization, craftsmanship, and entrepreneurship. In addition, participants reported increased confidence, independence, and motivation to contribute to family income through sustainable economic activities. The program also fostered environmental responsibility and strengthened community cooperation among women. The implication of this activity demonstrates that empowerment through creative and environmentally friendly skills training can serve as an effective approach to supporting sustainable family economies and women's social roles. Continuous follow-up and collaboration with local stakeholders are recommended to ensure long-term sustainability and wider economic impact.

1. INTRODUCTION

Women have an essential role in improving family welfare, especially in rural and suburban areas where access to economic opportunities is still limited. In many communities, women possess the potential for creativity and productivity that can be developed to contribute to household income. However, several obstacles such as limited knowledge, minimal entrepreneurial skills, and lack of access to capital or training often become barriers to women's empowerment. Consequently, many women remain dependent on unstable household incomes, despite having the potential to become independent micro-entrepreneurs within their local environment.

One of the key issues found in the target community is the accumulation of household waste that has not been properly managed. Waste such as plastic, paper, bottles, and fabric scraps is usually discarded without processing, causing environmental problems and reducing the cleanliness and comfort of residential areas. This situation reflects the low level of public awareness, particularly among women, about the economic potential contained in recyclable waste. If processed creatively, household waste can be transformed into useful, aesthetic, and

marketable handicraft products. This condition becomes the foundation for implementing a community empowerment program focused on waste recycling skills.

The community service program “Empowering Women through Training in Making Recycled Products from Household Waste to Increase Family Income” was initiated to address both environmental and economic challenges. The main objective is to improve women’s creativity and skills in managing waste while developing entrepreneurial competencies that support family economic resilience. This activity was conducted through participatory methods, including stages of socialization, skills training, mentoring, production practice, and evaluation. Women are encouraged to actively participate in every process to strengthen a sense of ownership and sustainability of the program.

Previous studies have shown that empowering women through skill-based training can effectively enhance family income and promote sustainable livelihoods. According to Rahmawati and Nurjanah (2022), women’s involvement in environmentally friendly business activities contributes not only to economic growth but also to environmental preservation. Likewise, Sari (2023) emphasizes that training in creative waste management increases women's awareness of sustainability and entrepreneurship. These findings support the relevance of this program in improving both economic welfare and environmental responsibility among women.

Therefore, this empowerment initiative is expected to create sustainable changes in behavior and mindset within the target community. Women are anticipated to become more independent, creative, and productive, contributing not only to their family’s economy but also to environmental sustainability. The success of this program can serve as a model for community empowerment activities in other areas, emphasizing the integration of gender equality, creative economy, and environmental conservation as the foundation of sustainable community development.

2. METHOD

The community service program “Empowering Women through Training in Making Recycled Products from Household Waste to Increase Family Income” was designed using a participatory action approach that emphasizes active involvement of the target community in every stage of planning and implementation. The main subjects of this program were women residing in [insert village/community name], who were selected based on criteria such as interest in creative activities, willingness to participate in training, and potential to contribute to family income. The program was conducted at [insert location, e.g., community hall or

training center], providing a convenient and accessible venue for participants to engage in learning and practical activities.

The planning process began with an initial assessment to identify the needs, challenges, and potential of the community. Data were collected through observations, interviews, and focus group discussions with participants, community leaders, and local stakeholders. The results of this assessment guided the design of the training program, ensuring that activities were relevant, feasible, and aligned with the socio-economic conditions of the participants. Active involvement of the women in the planning phase was crucial for fostering ownership, motivation, and commitment to the program.

The method of implementation combined several strategies, including socialization, hands-on workshops, mentoring, and evaluation. In the socialization stage, participants were introduced to the objectives of the program, the importance of environmental sustainability, and the potential economic benefits of recycling household waste. Practical workshops focused on teaching techniques for identifying recyclable materials, designing creative products, and producing items using accessible tools and resources. Mentoring sessions were provided to guide participants in problem-solving, improving product quality, and exploring simple marketing strategies to sell their products locally or online.

To ensure that the program achieved its objectives, the research method incorporated action research principles. This involved iterative cycles of planning, action, observation, and reflection, enabling facilitators and participants to collaboratively evaluate progress and make improvements. Quantitative and qualitative data were collected to measure outcomes such as participants' knowledge, skills, creativity, confidence, and income generation. Feedback sessions allowed participants to share experiences, challenges, and suggestions, which informed the next stage of activities and helped maintain program relevance and effectiveness.

The stages of the community service program included: (a) preparation and coordination with community leaders and stakeholders; (b) recruitment and selection of participants; (c) socialization and initial training on waste management and entrepreneurship; (d) hands-on workshops to produce recycled products; (e) mentoring for skill refinement and marketing guidance; (f) monitoring and evaluation of participants' progress; and (g) documentation and reporting of program outcomes. Through this structured yet flexible approach, the program aimed to empower women to become independent, creative, and economically productive while promoting sustainable environmental practices.

3. RESULTS

The implementation of the community service program “Empowering Women through Training in Making Recycled Products from Household Waste to Increase Family Income” produced significant outcomes in terms of skills development, behavioral changes, and social empowerment. The training activities included socialization sessions, hands-on workshops, mentoring, product design exercises, and marketing simulations. During the socialization stage, participants became more aware of the economic potential of household waste and the importance of environmentally sustainable practices. The practical workshops enabled women to transform plastic bottles, paper, fabric scraps, and other household waste into creative, functional, and marketable products such as bags, decorative items, and home accessories.

Mentoring sessions played a critical role in refining participants’ skills, providing solutions to technical challenges, and introducing simple business strategies. Participants learned to manage production processes, improve product quality, and develop small-scale marketing plans, including strategies for selling products through social media and local markets. The program also facilitated group discussions and peer learning, which strengthened community cooperation and fostered a sense of collective responsibility among the participants.

As a result of these activities, several social changes were observed. Participants showed increased confidence, independence, and motivation to contribute to family income, demonstrating a shift in traditional gender roles within the household. New local leaders emerged as women who took initiative in organizing group activities, mentoring peers, and coordinating with community stakeholders. This emergence of leadership contributed to a more structured and proactive community organization.

Moreover, the program created new awareness regarding environmental sustainability and resource utilization. Women began to perceive household waste not as a burden but as an opportunity for economic and creative innovation. The community collectively developed routines for collecting, sorting, and processing recyclable materials, indicating the establishment of new social norms and practices.

Overall, the program successfully integrated technical skills training with social empowerment, leading to both economic and social transformation. The participants not only acquired practical abilities to generate income but also contributed to fostering a sustainable, environmentally conscious, and collaborative community culture.

4. DISCUSSION

The results of the community service program “Empowering Women through Training in Making Recycled Products from Household Waste to Increase Family Income” demonstrate the effectiveness of skill-based empowerment in promoting economic independence, environmental awareness, and social transformation among women. The observed increase in participants’ creativity, confidence, and entrepreneurial capability aligns with Bandura’s (1997) social learning theory, which emphasizes the importance of observational learning, modeling, and practice in developing skills and self-efficacy. Through direct involvement in hands-on training, women were able to acquire practical knowledge, experiment with innovative product designs, and develop problem-solving skills, all of which contributed to building their confidence in applying these skills to real-life economic activities. The combination of observation, practice, and feedback created an interactive learning environment that enhanced both technical competence and self-belief.

Behavioral transformation among participants was evident in their increased awareness of the economic and environmental value of household waste, greater initiative in income-generating activities, and more proactive engagement in community collaboration. These changes are consistent with Kabeer’s (1999) empowerment theory, which posits that empowerment encompasses access to resources, agency to make meaningful choices, and the achievement of desired outcomes. In this program, participants gained access to knowledge, mentoring, and social networks, which collectively facilitated the exercise of agency in improving family income and contributing to environmental sustainability. Women’s ability to identify recyclable materials, create marketable products, and manage production processes reflects the practical application of learned skills and decision-making capacity.

From a community development perspective, the emergence of local leaders and strengthened social cohesion among participants reflects the creation of new social structures and networks, in line with Putnam’s (2000) social capital theory. Women who demonstrated leadership in organizing production schedules, mentoring peers, and coordinating with local stakeholders acted as catalysts for community collaboration. This development illustrates the potential of empowerment programs to foster informal leadership and community-based governance structures, which contribute to the sustainability of interventions. The presence of peer mentoring and collaborative problem-solving also enhanced mutual trust, knowledge sharing, and group solidarity, reinforcing the social fabric of the community.

The integration of environmental awareness with economic empowerment in this program resonates with the concept of the creative economy and sustainable development

(Florida, 2014). Participants learned to perceive household waste as an opportunity for economic innovation, transforming it into functional and marketable products while simultaneously reducing environmental impact. This dual benefit demonstrates that well-designed community interventions can simultaneously address multiple dimensions of sustainability: economic, social, and environmental. Furthermore, the program provided participants with exposure to marketing strategies, including social media promotion, local market engagement, and pricing techniques, which are critical for sustaining income generation and scaling up production efforts.

The program also highlights the importance of participatory approaches in fostering long-term behavioral change, supporting Freire's (1970) notion that education and skill development are central to social transformation. Women internalized values of self-reliance, creativity, environmental responsibility, and entrepreneurial initiative. Over time, these internalized values contributed to shifts in household decision-making, with women taking more active roles in financial planning and economic contribution. The emergence of local leaders further strengthened the community's capacity to sustain empowerment initiatives, as experienced participants guided newcomers and expanded knowledge-sharing networks.

Moreover, the program created a foundation for new social norms and practices regarding waste management, production, and community collaboration. The collective understanding that household waste can be transformed into income-generating resources fostered innovation, environmental stewardship, and social cohesion. Participants began to organize waste collection, design product prototypes collaboratively, and coordinate sales efforts, establishing routines and social practices that were previously absent. These developments illustrate a shift toward a more proactive, creative, and sustainable community culture.

In summary, the discussion highlights that empowerment programs targeting women through skill development, participatory engagement, and mentorship not only improve economic capacity but also facilitate comprehensive social and environmental transformation. The combination of social learning, empowerment theory, and community development perspectives provides a holistic framework for understanding the mechanisms behind the observed changes. The program demonstrates that targeted interventions can lead to multidimensional benefits, including increased income, enhanced social capital, leadership emergence, sustainable environmental practices, and the creation of new norms and behaviors that support long-term community development. These findings suggest that similar approaches can be scaled and adapted to other communities to promote women's

empowerment, sustainable livelihoods, and social innovation, reinforcing the interconnectedness of economic, social, and environmental goals.

5. CONCLUSION

The community service program “Empowering Women through Training in Making Recycled Products from Household Waste to Increase Family Income” has demonstrated significant theoretical and practical implications for women’s empowerment, community development, and environmental sustainability. The program effectively enhanced participants’ knowledge, skills, creativity, and entrepreneurial capacity, enabling them to transform household waste into functional and marketable products. This reflects the practical application of social learning theory (Bandura, 1997), showing that participatory, hands-on training can increase self-efficacy and confidence, allowing women to apply their newly acquired skills in real economic activities. Participants also exhibited increased agency, taking active roles in production, marketing, and financial management, which aligns with Kabeer’s (1999) framework of empowerment encompassing resources, agency, and achievements.

From a community perspective, the program contributed to the development of social capital, strengthening cooperation, trust, and mutual support among participants, as suggested by Putnam (2000). The emergence of local leaders and peer mentors indicates that structured empowerment initiatives can foster leadership, promote knowledge transfer, and sustain community-based programs. Moreover, participants’ growing awareness of environmental sustainability and their ability to repurpose waste into economic assets highlight the integration of creative economy principles and sustainable development (Florida, 2014). These outcomes demonstrate that community empowerment programs can generate multidimensional benefits, encompassing economic improvement, social cohesion, and environmental responsibility.

The program also provided valuable insights into the process of behavioral and social transformation. Women not only gained technical skills but also internalized values of independence, innovation, and environmental stewardship. The creation of routines for waste collection, product design, and marketing illustrates the establishment of new social norms and practices that support sustainable livelihoods. This indicates that skill-based empowerment programs, when implemented through participatory and reflective approaches, can facilitate long-term change in both individual behavior and community culture.

Based on the findings and theoretical reflections, it is recommended that similar programs be replicated and scaled in other communities to enhance women’s empowerment and local economic development. Future programs should incorporate continuous mentoring, access to market networks, and collaboration with local government or NGOs to ensure

sustainability and wider impact. Additionally, integrating environmental education with skill development can further strengthen participants' awareness of sustainable practices while providing practical solutions to local challenges.

In conclusion, the program has successfully demonstrated that empowering women through training in making recycled products from household waste can generate significant economic, social, and environmental benefits. By fostering creativity, leadership, and collaboration, such initiatives not only improve family income but also contribute to community resilience, environmental sustainability, and the long-term transformation of social norms. This community-based approach serves as a model for holistic development, emphasizing the interconnection between skill enhancement, empowerment, and sustainable livelihoods.

REFERENCE

- Ajija, S. R., Rumayya, Y., Rahmawati, Y., Munawaroh, S., Fitriyana, Z., Setyorini, W., Alif, P. K., & Sellawati, M. (2024). Housewives empowerment through waste recycle bags training. *Jurnal Layanan Masyarakat (Journal of Public Services)*, 8(2), 148–161. <https://doi.org/10.20473/jlm.v8i2.2024.148-161>
- Haryu, H., Hatta, H., Fuadatul H., & Syaifudin Z., M., & Sholeh, F. (2024). Strategies of housewives in strengthening the economy through environmental utilization for family education. *FIKROTUNA: Jurnal Pendidikan dan Manajemen Islam*, 15(1). <https://doi.org/10.32806/jf.v15i1.741>
- Hidayatullah, R., Suhono, I., Irhamudin, Y. A. S., Hidayah, Y., & Agustina S., Y. (2023). Learning creative economy empowerment through optimizing media digital and utilizing inorganic waste to become batik-patterned chairs. *Bulletin of Science Education*, 4(1). <https://doi.org/10.51278/bse.v4i1.560>
- Ichsan, N., Attas, N. H., & Nasir, C. (2022). Community empowerment in waste management household using barrel media. *Journal of Indonesian Scholars for Social Research*, 2(2), 215–218. <https://doi.org/10.59065/jissr.v2i2.142>
- Islami, P. Y. N., & Prihantoro, A. M. (2023). The analyzing of social economic impacted by optimization of recycling waste as supported for circular economy on community-based tourism in Pasaran Island. *JESI (Jurnal Ekonomi Syariah Indonesia)*, 13(1).
- Maulida, S. A., & Kahfi, K. (2023). Creative economic assistance in ecobricks craft empowerment reviewed from the perspective of Islamic economics. *ALIF: Sharia Economics Journal*, 2(2), 35–43. <https://doi.org/10.37010/alif.v2i2.1400>
- Purnamawati, I. G. A., Yuniarta, G. A., & Puah, C.-H. (2022). Entrepreneurial bricolage and improving the capability of women weaving entrepreneurs. *Jurnal Aplikasi*

Manajemen, 20(1), 43–53. <https://doi.org/10.21776/ub.jam.2022.020.01.05>

- Putra, A. R., Permana, B. R., & Panulisan, B. S. (2023). Community empowerment through waste reduction domestic based on recycled products in Margatani Village, Kramatwatu District, Serang Regency. *International Journal of Engagement and Empowerment*, 2(1). <https://doi.org/10.53067/ije2.v2i1.46>
- Rahmawati, E., Sukarno, T. D., & Purwanto, A. D. (2022). Village's women participation in sustainable waste management. *CELT: A Journal of Culture, English Language Teaching & Literature*, 22(2).
- Sari, N. W., & Madya, E. B. (2024). Community empowerment through Suka Mulia Waste Bank in improving household economic welfare in Pematang Johar Village – Labuhan Deli District. *Jurnal Al-Ijtima'iyyah*, 11(1). <https://doi.org/10.22373/al-ijtima'iyyah.v11i1.30051>
- Setiawati, R., Mubasit, & Hidayat, R. (2023). Digitalization in promoting women's empowerment and a post-pandemi creative economy. *West Science Journal Economic and Entrepreneurship*, 1(08), 433–442. <https://doi.org/10.58812/wsjee.v1i03.156>
- Sinaga, K. E. (2023). Women entrepreneurs empowerment: a literature review. *Journal of Economics and Business (JECOMBI)*.
- Sultana, T., Rokis, R., & Al-Attas, F. (2024). Encouraging women's empowerment: a qualitative analysis on household food waste management in Bangladesh utilizing 5R approach. *Saudi Journal of Humanities and Social Sciences*, 9(08), 238-251. <https://doi.org/10.36348/sjhss.2024.v09i08.001>
- Suprihandari, M. D., Purnomo, T., & Sanggarwati, D. A. (2024). Creative economic innovation in the sustainable fashion industry through the utilization of scrap fabric. *Jurnal Bina Bangsa Ekonomika*, 18(1). <https://doi.org/10.46306/jbbe.v18i1.732>
- Wahyuningsih, Y., Pratisti, C., Yuniastuti, R. M., & Wijayanti, Y. B. (2024). Building a circular economy: training and mentoring on plastic waste recycling for rural communities. *Sivitas: Jurnal Pengabdian dan Pemberdayaan Masyarakat*, 5(2). <https://doi.org/10.52593/svs.05.2.05>
- Wardhani, A. A., Arwinda, S., Solechan, A., Shibghatalloh, A. H., Syafrudin, H. A., & Musliha, C. (2024). Women as pillars of coastal economic resilience: role transformation, empowerment, and gender support in the Juwana coastal community. *Jurnal Ilmu Sosial dan Humaniora*, 14(2). <https://doi.org/10.23887/jish.v14i2.95632>
- Yuli, M. N. (2024). Harmony in waste: empowering women for optimal waste management and wealth creation. *Journal of Management and Economics*, 4(1), 12-17. <https://doi.org/10.55640/jme-04-01-03>