

Original Paper

Training on Optimizing Waste Bank Management through a Social-Humanistic Approach

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Abstract

Effective waste management in Sumur Mangga RT 06 RW 01, Larangan Ciledug, Tangerang City, remains a significant challenge. The Waste Bank initiative, aimed at organizing waste disposal, faces obstacles including low community engagement and inadequate understanding of waste types and the Waste Bank itself. Additionally, suboptimal prices for collected waste further hinder progress. To address these issues, Bina Sarana Informatika University has launched a Community Service program. This program employs a social humanistic approach to train residents in optimizing Waste Bank management and increasing their income. The methodology involves observation, interviews, training sessions, and evaluations. The outcomes demonstrate enhanced public knowledge and appreciation of waste management and the Waste Bank's role, leading to increased community participation. Training sessions have also equipped residents with strategies to boost the after-sales price of waste, thereby improving their earnings. This initiative has had a positive impact by tackling waste management challenges and enhancing local community welfare. It also emphasizes the importance of enhancing managerial and operational skills among Waste Bank managers, fostering better waste management practices and economic outcomes for residents.

Keywords: waste management, waste bank, social humanistic approach, additional income, community participation.

JEL Classification: Q1, Q53, M53

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1. Introduction

Law of the Republic of Indonesia Number 18 of 2008 concerning Waste Management divides domestic waste management into two parts, namely waste reduction and waste handling. Waste reduction includes 3R activities (reduce, reuse, recycle) on various waste sources, while waste handling includes collection, transportation, processing, energy recovery, and final disposal activities. One effort that can be made to encourage community participation in waste management is through the Waste Bank program. A Waste Bank is a concept for collecting dry and segregated waste which is managed like a bank, where what is saved is not money but waste.

This regulation explains the definition of waste as the remains of daily human activities and/or natural processes in solid form, which can be utilized or are still suitable/usable. Sumang Satu RW.01 Waste Bank, located on Jalan Sumur Mangga RT 06 RW 01, Larangan, Ciledug, Tangerang City, Banten, is one of the community's initiatives in managing waste in a more organized manner. The main aim of establishing a waste bank is to help handle waste processing in Indonesia, make people aware of a healthy, neat, and clean environment, and turn waste into something more useful in society, such as crafts and fertilizer which have economic value.

However, the Sumang Satu RW.01 Waste Bank faces several challenges, such as low community participation, especially from residents of Sumur Mangga RT 06 RW 01 Larangan Ciledug, Tangerang City, in understanding the function of the waste bank and waste sorting procedures. Apart from that, after-sales prices that are less competitive are also an obstacle in achieving management expectations. Therefore, the Community Service program carried out by Bina Sarana Informatics University Teaching Staff/Lecturers aims to provide understanding and training to the local community in optimizing waste bank management through a social humanistic approach, with the hope of increasing community participation and income from waste banks. Through implementation methods that involve observation, interviews, training and understanding of participants, it is hoped that this activity can contribute to solving the problems faced by the Sumang Satu RW.01 Waste Bank as well as increasing the level of income for the community in a sustainable way. It is hoped that the results of this community service activity can be published through articles or press releases in both print and electronic mass media, to provide information and inspiration to the wider community regarding the benefits and potential of waste management through waste banks.

Based on the situation analysis carried out, there are several main problems faced by partners in the Sumur Mangga area RT 06 RW 01, Larangan Ciledug, Tangerang City. These problems are: Lack of Knowledge about Types of Waste and Their Use: Communities in this area still need massive guidance and outreach regarding the types of waste in their environment and optimal ways to manage and utilize it. Knowledge about waste sources and potential utilization is still low. This indicates that there is a need to increase public awareness and understanding of the waste problem and ways that can be taken to reduce its impact. Lack of Understanding about the Existence of Waste Banks: In addition, there is still a lack of public understanding about the existence of Waste Banks as a solution for managing waste efficiently. Waste Banks are considered as a place that is not well understood by the public in managing waste properly.

Therefore, efforts are needed to provide a better understanding of the role and benefits of Waste Banks in reducing the volume of waste, as well as the potential benefits that can be obtained from active participation in the Waste Bank program. Non-optimal After-Sales Prices for Waste: Next, the problems faced are lack of added value from the after-sales price of waste for the community. The prices offered do not provide sufficient incentives for the public to actively collect and deposit waste at the Waste Bank. This indicates the need to increase incentives that are directly beneficial to the community, so that they feel motivated to participate more actively in waste management.

To overcome these problems, the solution offered is through a social humanistic approach and increasing income for residents. Concrete solutions that can be implemented include: Increasing Knowledge about Types of Waste: Through massive coaching and outreach activities, the public will be given a better understanding of various types of waste and their sources. They will also be given an understanding of how to manage and utilize this waste efficiently. It is hoped that the results of this activity will increase public knowledge about waste and its potential utilization, as well as increase their income. Increased understanding of the existence of waste banks: Efforts must be made to provide the public with a better understanding of the role and benefits of waste banks as a solution for managing waste efficiently. Good. The public needs to be informed that the Waste Bank is not only a place to reduce the volume of waste, but can also generate profits in the form of cash or goods. In this way, it is hoped that the public will be more motivated to actively participate in the Waste Bank program. Increasing After-Sales Prices for Waste: Efforts are needed to raise

awareness in the community about the importance of processing household waste. Apart from that, there is a need to increase incentives that directly benefit the community, such as increasing the after-sales price of the waste they deposit at the Waste Bank. With more profitable incentives, it is hoped that people will be more motivated to actively participate in waste management.

Garbage and humans are difficult to separate because every activity carried out by humans often creates waste (Borges 2018). The large amount of waste produced indicates that Indonesia is in a waste landfill emergency status. Problems related to waste tend to be complex in all regions in Indonesia, including Semarang and its surroundings. Lack of public awareness to sort and select waste according to its place creates a serious problem (Minelgaite and Liobikiene 2019; Al Fira et al. 2022). The habit of people who like to use products made from plastic has increased the volume of plastic waste accumulation (Ariefahnoor et al. 2020). Apart from that, problems in the government domain such as an insufficient budget to find solutions to waste accumulation in Indonesia further complicate the waste problem in Indonesia (Septiani et al. 2019).

Waste is classified in several forms based on Law Number 18 of 2008 concerning Waste Management which states that waste is the remains of daily human activities and/or natural processes in solid form. Waste based on its constituent substances (biological and chemical), is classified into organic waste (wet waste) and inorganic waste (dry waste). Wet waste is waste that tends to decompose easily (garbage) due to the activity of microorganisms. Examples of this waste include leaves, tree trunks and twigs, leftover vegetables, fruit, used building wood, and animal carcasses. Meanwhile, dry waste is waste that is difficult to decompose (refuse), for example paper, plastic, pieces of cloth, metal, glass, rubber, and so on (Nugraha 2019).

Waste reduction activities mean that all levels of society, including the government, the business world and the wider community, carry out activities to limit waste accumulation, recycle and reuse waste or what is better known as Reduce, Reuse and Recycle (3R) through intelligent efforts, efficient, and programmed (Angelis et al. 2019). To reduce the volume of waste and make the waste produce rupiah value, it must be managed by the community through a waste bank program (Ivakdalam and Risyart 2022). Seruni Waste Bank is one of the waste banks that is active in managing waste in Jomblang Village. The local community has a high awareness of the importance of maintaining cleanliness. Sociological attention to urban waste and its global manifestations allows us to embrace, as central, dynamics of social change that are considered marginal and uncontested (Borges 2018).

2. Method

This activity is a form of community service provided in the form of training related to how to optimize waste bank management through a social humanistic approach and additional income for residents. Therefore, the theme of this community service activity is "Training on Optimizing Waste Bank Management Using a Social Humanistic Approach and Additional Income for Citizens".

The stages in implementing these activities are:

1. Preparation phase

This stage was carried out to determine the problems faced by the Sumang Satu RW.01 Waste Bank, as well as to ensure the willingness of partners for this community service activity. Next, prepare for training by preparing material that will be presented in community service activities, creating test questions and questionnaires to find out responses from training participants.

2. Implementation stage

The implementation phase of community service activities is carried out offline, for community service partners, namely the Sumang Sati Waste Bank, located on Jalan Wells Mango RT 06 RW 01 Larangan Ciledug, Tangerang City.

3. Monitoring and evaluation stage.

At this stage, it is carried out by providing a questionnaire that must be filled out by partners to find out how much the partner's abilities have increased and the response from participants after the training.

On Sunday, May 12 2023, 09.00 – 12.00 WIB, Bina Sarana Informatika University successfully held Community Service activities at the Sumang Satu RW.01 Waste Bank, located on Jalan Sumur Mangga RT 06 RW 01, Larangan Ciledug, Tangerang City. This activity was led by a number of committees consisting of:

1. Responsible Person: Prof. Dr. Ir. Mochamad Wahyudi, MM, M.Kom, M.Pd, IPU, ASEAN Eng.
2. Chief Executive: Tri Widyastuti SPd., MM., who has the main task of making plans, proposals, observing partner locations, and coordinating committee members and participants.
3. Tutor: Ananto KrisnaWardhana, SE, MM, who is in charge of creating training materials and delivering them to participants. Responsibilities include the content of training materials and how they are delivered.
4. Executive Member: Yudha Febri Al Paksi S Ikom., MM., who is in charge of calculating budget costs, managing consumption, transportation, equipment, and making financial reports.
5. Executive Member: Irwin Ananta Vidada, SE, MM, who has the task of coordinating student participants and making reports on the implementation of activities. Responsibilities include collecting documentation and creating reports.

Apart from that, the activity also involved two students, Afrida Nita Mawadah and Aisyah, who assisted in all stages of implementing community service. Facilities provided to participants include training materials and questionnaires. This questionnaire will be given to approximately 20 respondents, both partners and participants, to evaluate the level of satisfaction during the activity and the impact produced afterwards. Thus, this activity was not only successfully organized well, but was also equipped with a comprehensive evaluation process to ensure the achievement of the goals of community service.

3. Results

Understanding Waste Bank

In this section, it is explained that a waste bank is a place used to collect waste that has been sorted, with the results of the collection of the sorted waste being deposited to a place where crafts are made from waste or to a waste collector. The waste bank is managed using a banking-like system carried out by volunteer officers. Depositors are residents who live around the bank location and receive a savings book like saving at a bank. The benefits of waste banks include making the environment cleaner, making people aware of the importance of cleanliness, and turning waste into economic goods. For the community, waste banks can increase their income because when they exchange their waste they will receive a reward in the form of money collected in their account. Waste banks can also provide rewards in the form of basic food items or even school fee payments for students who are less fortunate financially.

Waste Bank Management

Waste management needs to be carried out comprehensively and integrated from upstream to downstream with a circular economy approach by the central government, regional governments and the community. Waste management can be carried out synergistically through the Waste Bank. It also regulates the conditions that must be fulfilled by the Waste Bank, including waste management, Waste Bank facilities and Waste Bank governance. Waste management through the Waste Bank involves waste sorting activities, which include sorting based on the type of waste, such as waste containing B3 and/or B3 waste, waste that is easily decomposed by natural processes, waste that can be reused, waste that can be recycled, and waste. other.

Waste Bank Management

Waste Bank Management is a facility for managing waste using the 3R principles (Reduce, Reuse and Recycle), as well as a means of education and behavior change in waste management. There is a 5R program in Waste Bank management, namely reducing waste, sorting waste, utilizing waste, recycling waste and saving waste. Technical steps for waste management with the Waste

Bank include outreach, establishing a Waste Bank manager, training, facility preparation, looking for waste buyers, promotions, waste savings services, and monitoring and evaluation.

Benefits of Waste Bank Management

The benefits of Waste Bank Management can be seen from several aspects, including environmental, educational and socio-economic aspects. Environmentally, the benefits include reducing the amount of waste thrown into landfill, helping to reduce air pollution due to burning waste, and creating a healthy and clean environment. From a socio-economic perspective, the benefits include increasing family income from the waste they save in waste banks, creating an entrepreneurial spirit in the community, changing negative perceptions of waste activists, and changing the strata of social life in Indonesia.

Understanding Waste Bank

The second material discusses humanistic concepts in psychology and the meaning of social psychology as well as the aims and benefits of a social humanistic approach. The humanistic understanding in psychology is seen as an alternative to dominant theories such as psychoanalysis and behaviorism. Humanistic theory emphasizes that humans have an innate drive to develop themselves, the freedom to design and develop behavior, and are conscious rational creatures. The definition of social psychology includes human behavior and mentality related to relationships between individuals in society. The aim of the social humanistic approach is to provide an understanding of how to establish ideal relationships between humans as social creatures, prevent conflicts between human lives caused by individual egos, provide solutions when conflicts arise in society, and manage differences between individuals in society.

Thus, these two materials discuss physical waste management through Waste Banks and also psychological and social aspects in managing and approaching waste, all of which have important implications for sustainable development and social welfare.

Waste Bank Management Process

Socialization and Education, to Increase public awareness of the importance of good waste management. Activities in this process are holding seminars, workshops, and campaigns on waste disposal, recycling, and the economic benefits of waste banks. The social humanistic approach emphasizes community empowerment, increasing social awareness, and building togetherness in waste management. The following are steps that can be taken: Encourage active community involvement in every stage of waste bank management, provide regular training on waste processing, processing, and marketing techniques, by combining a social humanistic approach and quantitative data, training on optimizing bank waste management can be further improved. applicable and beneficial to the community, and provide a significant positive impact on the environment and local economy.

4. Discussion and Benefits

Based on the results of interviews with local RT and RW administrators, the Sumur Mangga area is a fairly densely populated area, so the daily waste volume for each head of household reaches quite a significant amount. The results of observations through observation activities before community service activities were carried out showed that the accumulation of rubbish would eliminate the beauty and aesthetics of the shape of a place. The occurrence of waste accumulation which is also caused by family waste, which is also local community waste, will eliminate the function of protecting the environment very well.



Figure 1. Observations with Waste Bank administrators and RT/RW administrators

Based on an analysis of the situation in the Sumur Mangga area RT 06 RW 01, Larangan Ciledug, Tangerang City, several main problems faced by the local community were identified. There are several problems that must be addressed by all residents and local administrators, these problems are:

First problem, there is a lack of knowledge about the types of waste and how to use it. People do not fully understand the various types of waste in their environment, as well as optimal ways to manage and utilize it. As a result, awareness of the importance of waste management and the environmental impact it causes is still low.

The second problem is the lack of understanding about the existence of Waste Banks as an efficient waste management solution. Waste Banks are considered as a place that the public does not understand how to manage waste properly. This indicates the need for efforts to provide a better understanding of the role and benefits of Waste Banks, as well as the potential benefits that can be gained from active participation in the Waste Bank program.

The third problem faced is the suboptimal after-sales price of waste for the community. The prices offered by the Waste Bank do not provide sufficient incentives for the public to actively collect and deposit waste at the Waste Bank. Therefore, it is necessary to increase incentives that can provide direct benefits to the community, so that they feel more motivated to participate in waste management.



Figure 2. Non-Organic Waste Sorting Activities

To overcome these problems, the solution offered is through a social humanistic approach and increasing income for residents. Concrete steps that can be taken include increasing knowledge about types of waste through massive coaching and outreach activities, as well as understanding the existence of Waste Banks and increasing after-sales prices for waste through public awareness efforts and more profitable incentives. It is hoped that the implementation of these solutions can overcome existing problems and increase the effectiveness of waste management in the Sumur Mangga RT 06 RW 01 area, Larangan Ciledug, Tangerang City.



Figure 3. Tutor's presentation of training material

In the presentation of this training material, the tutor provides an understanding of what must be prepared for the provision of BSI type waste bank facilities which are required to meet the requirements: have facilities for classifying waste based on waste type, equipped with labels or signs on the facilities, location area and waste management capacity. according to needs, the location is easily accessible, does not pollute the environment, has waste processing facilities, has waste collection transportation facilities.

Apart from that, the tutor also explained that every waste bank administrator should collaborate with environmental administrators to carry out several activities that can improve waste bank management, namely conducting socialization of waste banks, forming waste bank managers, training waste bank managers, preparing waste bank equipment, looking for waste buyers. (rosok/collectors), promoting the establishment of waste banks, providing waste savings services for processing organic and non-organic waste, and carrying out periodic monitoring and evaluation.

Therefore, this service activity focuses on ensuring that every family home has the knowledge and ability to manage and organize their waste, and all waste bank and RT and RW administrators can provide better understanding and manage waste banks. Through this outreach and training, it is hoped that the community can increase their knowledge of the importance of protecting the environment, because remembering the dangers caused by not caring about managing waste will have a huge impact on human values and life in the long term. So, everything that is thrown into a landfill before being managed is also one of the shortcomings of a very apathetic society that doesn't care about cleanliness and is still in a closed environment. People also tend to immediately throw away household waste without managing the waste by separating organic waste from organic waste. Non-Organic. This lack of knowledge of how to process waste or recycle waste so that waste is reduced is what must be provided for understanding so that people have sufficient knowledge in processing waste from the results of human activities.



Figure 4. Questions and Answers Regarding Training Materials

This Community Service is a form of positive contribution from Bina Sarana Informatika University in providing training related to optimizing Waste Bank management through a social humanistic approach and additional income for residents. The stages of implementing these activities include preparation, implementation, and monitoring and evaluation, which aim to ensure the effectiveness and smooth running of the service program. Benefits that can be obtained by the group Sumang Satu RW.01 waste bankin this counseling, are: Group Sumang Satu waste bankcan understand the Social Humanistic Approach and Additional Income for Citizens, carrying out cultivation activities, processing and marketing the resultswaste processing, establish and regulate better financial and production systems,Group Sumang Satu waste bankcan take advantage.changing waste into something more useful in society, for example for crafts and fertilizer that have economic value,More neighborhood residentsSumang Satu waste bank,make society awarewho can experience the resultsof a healthy environment,neat and clean.

With support from the committee team consisting of various groups, including academics and students, as well as facilities provided by the university, it is hoped that this activity can have a significant impact on the local community. At the end of the activity, an evaluation will be carried out using a questionnaire to assess the level of participant satisfaction and the positive impact resulting from implementing the activity.

5. Conclusion

Based on the review presented, it can be concluded that waste management in the Sumur Mangga RT 06 RW 01, Larangan Ciledug, Tangerang City area faces several main problems, such as a lack of knowledge about types of waste, a lack of understanding about the Waste Bank, and after-sales prices for waste that are not optimal. . The solution offered involves a social humanistic approach and increasing income for residents, with concrete steps in the form of increasing public knowledge, understanding of the Waste Bank, and increasing the after-sales price of waste. It is hoped that the implementation of community service activities by Bina Sarana Informatika University can make a positive contribution in overcoming these problems and increasing the effectiveness of waste management in the area. Evaluation is carried out through questionnaires to assess participant satisfaction and the positive impact resulting from the service program. Thus, it is hoped that this program can provide significant benefits for local communities and become an example for better waste management in other areas.

Training on optimizing waste bank management at the Sumang Satu RT.01 waste bank through a humanistic social approach and additional income for residents has several implications such as increasing managerial and operational skills. This training can improve the managerial and

operational skills of waste bank managers. With better knowledge about waste management and operational strategies, managers can work more efficiently and effectively, so that waste bank operations become more optimal. Motivation and job satisfaction: The social humanistic approach in this training helps increase the motivation and job satisfaction of waste bank managers and members. By paying attention to psychological and social aspects, this training can increase the sense of ownership, togetherness and responsibility in managing the waste bank. Waste management efficiency. This training also has implications for increasing efficiency in waste management. With the new techniques and methods taught, the process of collecting, sorting and processing waste can be done better, reducing waste that is not managed properly and increasing the amount of waste that can be recycled.

Recommendations

Suggestions for training activities to optimize waste bank management through a social humanist approach and additional income for residents such as: conducting needs assessments and basic understanding, conducting surveys or initial discussions with residents to find out the needs, challenges and expectations of residents regarding waste management. Management and operational training, Focus on waste management techniques, operational management and efficient recycling strategies. Humanistic approach: Includes training sessions on effective communication, teamwork, and leadership to strengthen social and humanistic aspects. Benefits for readers are: The community becomes more aware of the importance of good waste management and actively participates in the waste bank program, The community can increase income through the sale of sorted waste and recycled products, The environment becomes cleaner and healthier due to more effective and efficient waste management, The community gains new skills in waste management, recycling, and making products of economic value.

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