

INCREASING WASTE SORTING SKILL AND INTRODUCTION WASTE BANK IN HOUSEWIVES OF BEKASI JAYA INDAH

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ABSTRACT

Garbage is one of the things that can be a source of problems for the environment, but also has benefits for the community's economy. This PKM activity aims to provide operational technical skills in processing waste and establishing a waste bank to explore community awareness of the environment. The problems faced in society today are environmental problems related to the increasing volume of waste, both organic and inorganic. Public awareness efforts are needed to process and utilize household waste better so that it can reduce waste in the sub-district and have added value. Seeing these conditions, it is necessary to create a waste bank in the RW 09 Bekasi Jaya Indah area which can provide education about waste handling and waste utilization in a good and efficient manner. The formation of a waste bank is also useful for training the managerial side in waste management so that its members can be more prosperous.

Keywords : Garbage, Garbage Bank, Bekasi Jaya Indah

1. INTRODUCTION

Garbage or household waste is waste that comes from daily activities in the household which does not include feces and specific waste. If various types of waste are produced by households and industry, if they cannot be managed properly and correctly, they have the potential to weaken the community's economy because they will absorb quite a large amount of funds for handling them both in terms of cleanliness, health and the environment. (Ayilara *et al.* 2020). The household waste produced can affect environmental pollution such as decreasing air quality, which will affect the health level of other people (Hasibuan, 2016). The impact of household waste can affect environmental pollution such as decreasing air quality, so that it will affect the level of health for other people. The existence of waste in residential areas, especially in increasingly densely populated communities, requires handling and the active role of the community and local government. One of the areas that considers that their area needs the development of a waste bank is the community in the RW 09 Bekasi Jaya Indah area. The urgent need for waste banks is caused by: a) the increasing volume of household waste in the kelurahan environment in line with the increasing number of housing and settlements in the area; 2) the increasingly expensive cost of transporting waste from the household environment to the Final Disposal Site (TPA); 3) increasingly narrow land for landfills.

The existence of waste in residential areas, especially in increasingly dense communities, requires handling and an active role from community members and the local government. The lack of public concern for the household environment, especially in managing household waste, is an important obstacle (Widiyanto *et al.* 2019). The RW 09 Bekasi Jaya Indah area is part of 16 RWs in the Bekasi Jaya sub-district area. The number of heads of families (KK) is 20,281 families with an area of around 348.22 Ha. The RW 09 Bekasi Jaya Indah area is one of the areas in the Bekasi Jaya Sub-District that is not fully aware of the dangers of waste if it is not managed properly. The waste bank is one of the strategies that the district government has pushed for the kelurahan. The kelurahan is expected to be able to turn on the waste bank. The development of a waste bank will not be successful if it is not supported by community awareness.

According to Saputro (2013) the Garbage Bank is a form of local community initiative in an effort to deal with waste problems. According to Mujibuurahmad *et al.*, (2014), the active participation of the community in the waste management process in addition to reducing the burden on the environment regarding the dangers of existing waste, can also bring economic benefits to the community if waste can be turned into something useful and beneficial such as crafts or art, organic fertilizers and so on. Communities can sort organic and inorganic waste. Organic waste can be processed into compost that can be used for farmers' crops or can be sold and increase people's income. Inorganic waste itself

must be separated according to its category (plastic, cans, paper, glass, etc.) which can then be collected and sold to existing waste banks (Sayara *et al.* 2020).

According to Purwanti *et al.* (2015) one of the efforts set by the government to increase local government awareness in waste management is by requiring cities/regencies to adopt the Garbage Bank concept as one of the requirements in evaluating environmental awards for cities/regencies, namely the Adipura Cup. The concept of a waste bank consists of five activities (5M) including reducing waste, sorting waste, utilizing waste, recycling waste, and saving waste. The management of the waste bank itself must use the appropriate method. In addition to methods in waste management, also methods in recording/administration. Administration is done manually, will be at higher risk compared to the computer. The management of the Garbage Bank, especially the registrar, must have adequate abilities or skills. Community empowerment can optimize the waste bank program, so that the waste bank program can run well.

2. METHOD

This community service activity aims to increase public awareness of the dangers of waste, improve skills in sorting waste and inform housewives about the waste bank in RW 09 Bekasi Jaya Indah. The increase in the volume of waste, both organic and inorganic, has a negative impact on the environment, which can be reduced by sorting and managing waste. Another goal of this community service is so that residents (especially housewives) can become customers of the waste bank and obtain savings from depositing waste.

2.1 Implementation of Service Activities

The approach method that is carried out based on an agreement with partners is by socializing about waste and its management, and how housewives in RW 09 Bekasi Jaya Indah can earn income from existing waste management. The implementation of community service activities includes:

1. The process of growing knowledge and awareness of housewives in RW 09 Bekasi Jaya Indah This process is carried out by providing information that is easily digested by housewives
2. in RW 09 Bekasi Jaya Indah, by providing awareness and skills education for residents in waste management by applying the principles of *reduce, reuse, recycle* and *replant* . The technique used is socialization using digital media and props.
 - a. Training with emancipatory participation methods (interaction and communication), as well as dialogue with residents.
 - b. The process of building the motivation of housewives in RW 09 Bekasi Jaya Indah
3. This process is intended so that housewives in RW 09 Bekasi Jaya Indah who are empowered have the desire to take advantage of waste economically, where from waste savings they get money to pay for electricity and buy groceries, as well as realizing environmental health, with cleaner community conditions, green, comfortable, and healthy. Their active participation will have an impact on improving their welfare.

2.2 Stages of Implementation of Service Activities

To implement the partnership method, the stages of activity are carried out with the following steps:

1. The first stage, collecting data, facts, and information related to the problem of community service objects.
2. The second stage, compiling a joint plan through a focused discussion approach. In this process all stakeholders are involved. The purpose of this discussion is to gain support and agree on a solution to the problem together.
3. The third stage, preparing a work plan. The results of the focused discussion are included in the strategic plan matrix table. The matrix will describe the purpose of the activity, location, scope, role of related parties, planned costs required, indicators of success and the process of sustainability after mentoring.
4. The fourth stage, the implementation technical plan which contains a detailed time table in a big table. It is expected that all interested parties know the plan to be carried out. In this way all resources are involved in the management process which includes planning, organizing, reporting and monitoring.
5. The fifth stage, implementation of activities that have been planned and agreed with partners.
6. The sixth stage, monitoring evaluation and report preparation. At this stage the dissemination of implementation results is also carried out, so that a thorough evaluation can be carried out,

discussing sustainability, and development efforts. Dissemination is also intended to provide a learning process for other activities. The entire activity will then be published in the form of a national-level scientific article, so that it will also indirectly promote the efforts carried out by partners.

3. RESULTS AND DISCUSSION

The socialization activity related to improving waste sorting skills and introducing a waste bank to Bekasi Jaya Indah housewives is a Community Service program that was held on January 31 2023 at the RW 09 Office, Bekasi Jaya Indah, Bekasi Jaya. This service activity took place at the house of the father of RW 09 Bekasi Jaya Indah.

This activity begins with delivering material using *power point media*. The material presented includes an introduction to household waste and its classification, techniques for sorting and processing non-organic household waste, and an introduction to the Waste Bank (Figure 1). The volume of household waste that piles up is caused by low public awareness regarding education about the impacts on health and the benefits of environmental sustainability (Selomo *et.al.*, 2016). This requires educational education regarding concern for the environment for the community, which can be carried out through various activities that are fun and have selling value (Novianarenty& Ningsih, 2018).

Efforts to reduce the waste problem require active participation from residents, which can be started from individuals, families, and can be transmitted on a large scale, namely the community. One of them is through integration between parties in the community in household waste management, namely through the waste bank program (Singhirunnusorn *et.al.*, 2017). A clean, healthy and sustainable environment can be achieved through better waste management ((Pandiyanarajan *et al.* 2022). This can have an impact on the environment, health, social and economic community. As one of the waste management practices in society, waste bank management requires a mindset on how household waste can be sorted, sold, and even reprocessed. This kind of mindset or mindset needs to be owned by managers, local government, to customers and local residents.



Figure 1. Socialization of Waste Segregation and Introduction of Waste Banks

In this community service activity, evaluation activities are carried out for all participants to find out the objectives of this community service activity have been achieved (Figure 2). Evaluation activities are carried out by distributing pre-test sheets before the activity begins and post-test sheets after the activity is finished. The distribution of evaluation sheets aims to measure the level of understanding of participants before and after participating in this community service activity (Table 1). Understanding of the types and characteristics of waste, how to sort it, and being able to process waste into creative and economical products. It is hoped that the participants will be able to apply waste management practices based on the principles of *reduce, reuse and recycle*, or better known as the 3Rs. This means that the volume of waste must be reduced by suppressing consumptive behavior, using equipment that can be reused, and recycling waste. In addition, it is expected to

establish a waste bank in every RT or RW in the area as a new breakthrough in terms of wastemanagement where waste is considered as something that has economic value.

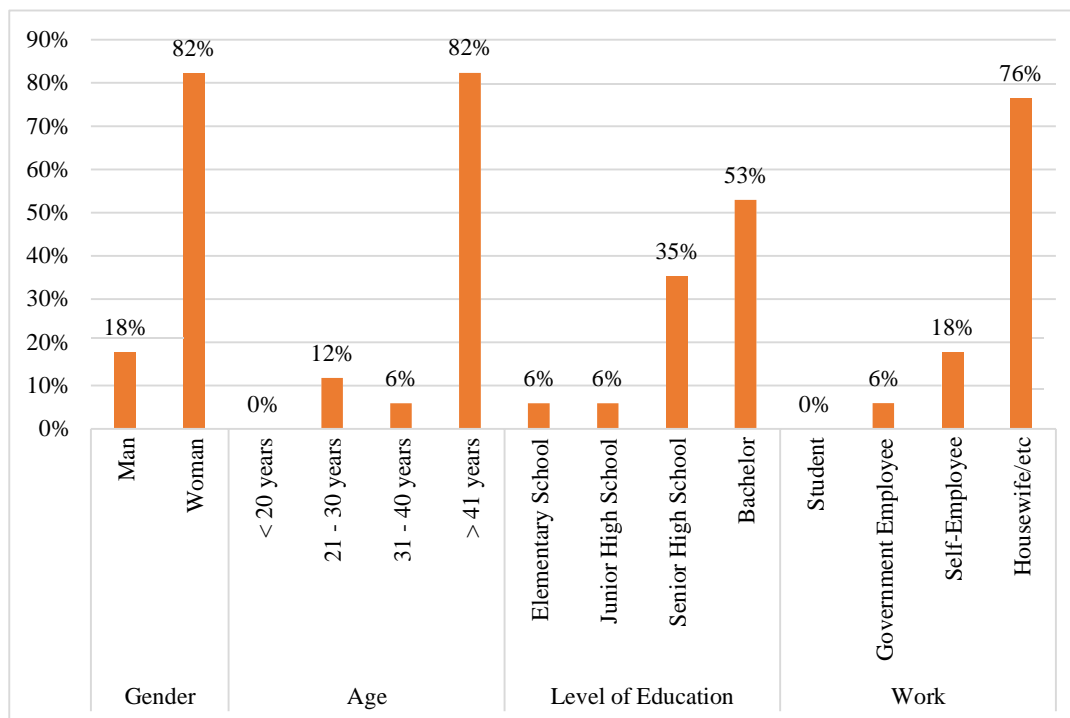


Figure 2. Demographics of participants in community service activities

Based on Figure 2, it can be seen that in general, 82% of the participants in socialization activities and training to improve waste sorting skills and introduce waste banks to the housewife of Bekasi Jaya Indah are women, with the age criteria being dominated by the age of more than 41 years and the rest aged 21-40 years. Based on the level of education, it was dominated by undergraduates by 53%, and the criteria for the work of the participants were housewives by 76%.

Table 1. Results of Evaluation of Training Participants

Questions	Pre-Test Results		Posttest results	
	Yes (%)	No (%)	Yes (%)	No (%)
Do you know the benefits of sorting waste?	82.35	17.65	100.00	0
Do you know the types of waste?	88.24	11.76	100.00	0
Do you know about how to manage non-organic waste?	41.18	58.82	94.12	5.88
Have you ever heard of a Garbage Bank?	82.35	17.65	94.12	5.88
Do you know the benefits of being a customer of the Garbage Bank?	52.94	47.06	94.12	5.88
Do you think that the waste bank can be beneficial for the environment?	94.12	5.88	100.00	0
Do you know what items are accepted by the Garbage Bank?	35.94	64.71	94.12	5.88
Do you know how to use non-organic waste into goods that have a sale value?	52.94	47.06	94.12	5.88

Based on Table 1 on the evaluation results of the participants, it can be seen that the results of the pre-test showed 65% of participants did not know how to select and process non-organic waste and were still minimal in knowing about waste banks. Table 1 also shows the results of the post-test after the activity was carried out, namely that all participants knew how to select waste based on its type and characteristics, manage non-organic waste productively and economically and add insight regarding waste banks.

4. CONCLUSION

Community service activities related to outreach and training to improve waste sorting skills and introduction to waste banks for Bekasi Jaya Indah housewives have been carried out well. Partners were very enthusiastic during the socialization and training, as evidenced by the many questions asked to the service team. With the cooperation of a good service team and the active participation of extension workers/speakers in this community service activity, everything has gone as expected and it is hoped that it will provide benefits for community service partners in sorting and managing waste and becoming a waste bank customer to get a healthy environment and increase in household income.

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