# Community Empowerment through the Bandung City Sustainable Green Waste Bank

### Naufal Fajri<sup>1</sup> Nike Kamarubiani<sup>2</sup>

Department of Public Education, Faculty of Education, Indonesian University of Education, Bandung City, West Java Province, Indonesia<sup>1,2</sup>

Email: naufalfajri@upi.edu1 nike.kamarubiani@upi.edu2

#### **Abstract**

Waste bank is a local institution formed on the concern of the community to create a clean environment and avoid various kinds of infectious diseases. Waste banks play an important role in providing an education for the community to manage their waste from their respective homes so that it will form a new habit in overcoming the waste problem. In addition, waste banks have the value of developing a people's economy that has a significant impact on people's welfare. With the existence of a waste bank, people can save their waste and then exchange it for a predetermined nominal amount of money so that it can be useful for their daily needs. In this study, the applied method is a qualitative descriptive method. The results of this study show that community empowerment through the Sustainable Green Waste Bank in Cicaheum Village, Kiaracondong Subdistrict, Bandung City can be realized through two stages of activities including socialization of managing waste from home and other supporting programs to create community concern for the environment such as gardening programs, waste recycling programs, and waste processing programs into organic fertilizers.

Keywords: Community Empowerment, Waste Bank



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## **INTRODUCTION**

Waste is a material that is disposed of and no longer has use value and comes from household activities in each community environment. Broadly speaking, the waste problem is indeed so complicated, especially related to its handling which has not been managed properly, especially what happens in big cities in Indonesia. Waste will bring various kinds of bad influences to people's lives such as; the onset of disease, unpleasant smell, and will cause catastrophic flooding when the garbage is thrown away carelessly.

Cicaheum Village, Kiaracondong District, Bandung City is one of the areas that still needs serious handling in overcoming this waste problem. Therefore, it requires the participation of the surrounding community to be willing to care about their environment so that they can reduce the volume of waste in the city of Bandung. As a form of concern from the irony of the waste problem, then the members of non-governmental organizations Cicaheum Village, Kiaracondong District, Bandung City, who are members of the NGO Hijau Lestari have the initiative in understanding the community through the waste bank program. This activity, which has been started since 2016, is a routine activity that is managed directly by the NGO Hijau Lestari in creating community concern for the surrounding environment. The Green Lestari waste bank is located on Jalan Jenderal Ahmad Yani No. 752 Cicaheum Village, Kiaracondong District, Bandung City which has a role in moving people to want to start sorting their respective waste from their households which is the initial source of producing the waste.

#### **Bibliography Review**

Community empowerment is A strategy in creating people's abilities so that they can know and take advantage of the potential that exists in them. Community empowerment positions the

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community as the owner of a role in carrying out every development process in the community to be more independent and prosperous. In other words, people contribute to exploring their potential so that a sense of self-awareness will arise in order to improve a better standard of living. Community empowerment emphasizes community participation to be active in answering every social problem that is happening in the community. Community empowerment activities contain two tendencies; (1) Community empowerment that emphasizes the process of giving some power, ability or power to the community so that they become empowered (primary tendencies). (2) Community empowerment that emphasizes the process of encouraging, motivating or stimulating individuals to have the ability to determine what is their life choice through a process of dialogue, called secondary tendencies (Riza and Roesmidi, 2008: 1-2).

According to Istiardi, et al (2003) in Suwerda (2012: 29) that community empowerment is an effort to facilitate non-instructive in order to improve the ability and knowledge of the community in identifying, planning, and solving a problem through the utilization of the potential that exists in its place, both from across sectors or non-governmental organizations and community leaders so that they no longer depend on outside assistance. Waste bank is a self-sustaining waste management model that concentrates community participation to sort their waste from their respective homes and then they are encouraged to save money to the waste bank. According to Sucipto (2012: 204) a waste bank is a waste management process that uses a system of depositing several types of waste into an agency that has been formed and jointly approved by the surrounding community to accommodate several types of waste so that it has an economic value to be saved within a predetermined period of time.

This activity is one of the strategies in providing behavior change in the community not to litter their garbage. In addition, the waste bank is an effort to develop the creative economy in an urban area through works produced in various waste bank recycling programs. The role of waste banks can be seen in a theory of exchange (Damsar, 2010: 62) which says that the world as an exchange event where human individuals exchange gifts with each other. This theory has several assumptions including;

- 1. Man is a rational being who calculates gains and losses. Exchange theory views that humans will continue to engage in choosing an alternative behavior with two choices, namely threats and rewards. That is, the greater the reward obtained, the greater the likelihood that a behavior will be repeated.
- 2. Conversely, the higher the threat obtained, the less likely it is that the same behavior will be repeated.
- 3. Such exchange behavior will occur if: a) The behavior is oriented towards goals that can only be achieved in the presence of interaction with others. b) The conduct has the purpose of obtaining a means for the implementation of the achievement of these goals.
- 4. Exchange transactions will occur if the parties involved benefit from the exchange. The benefits of an exchange do not have to be extrinsic rewards such as goods, money or services alone, but can also be intrinsic rewards such as honor and compassion.

Waste banks are A local institution that does not have enormous power. Waste banks do not have the authority to threaten the community not to litter, so waste banks must carry out a reward system to motivate people to sort and take them to the waste bank for savings. The higher the reward obtained by the community, the more likely it is that a behavior will be repeated. The rewards used by the waste bank are in the form of extrinsic rewards for money in the form of savings, so that the higher the reward felt by customers, the higher the possibility that waste saving behavior will be repeated. This will create a change in people's behavior in responding to environmental problems.



This activity of making people aware through waste savings is considered to be able to change people's views regarding the waste phenomenon. The waste that was usually thrown away, has now become a lot of great benefits for them. Waste bank activities are activities to empower a community. Rohmanur Aziz (2014: 11) argues that community empowerment activities not only develop the economic potential of the people but also dignity and dignity, self-confidence, and self-esteem as well as the maintenance of a local cultural value order such as in environmental awareness activities through the waste bank program.

#### METHOD OF EXECUTION

The research method used in this study focuses on descriptive qualitative analysis obtained through documentation studies, observations and interviews. Descriptive research is research designed to obtain information about a variable related to the problem under study. This research uses a qualitative approach because this research is a process of community empowerment activities carried out through waste banks to increase community awareness of the surrounding environment. The data produced in this study is data in the form of words or sentences which will then draw a conclusion as the final result of the study.

#### RESULTS AND DISCUSSION

## Working Mechanism of Sustainable Green Waste Bank

This research was conducted at the Sustainable Green Waste Bank located on Jalan Jenderal Ahmad Yani No. 752 Cicaheum Village, Kiaracondong Subdistrict, Bandung City. In carrying out the process of this waste management activity, the Sustainable Green Waste Bank was given a lot of guidance by the Bandung City Environmental Control Agency (BPLH). The contribution of waste bank administrators in the community is as a facilitator and transports or receives waste generated by each household. Meanwhile, waste depositors, who are called waste bank customers, are people who have registered to be willing to save their waste at the Sustainable Green Waste Bank. Garbage depositing is carried out daily from 08.00 am to 16.00 pm. Officers will serve every customer who comes with a work mechanism that has been regulated based on general provisions. The following will explain the mechanism of waste banks at the Sustainable Green Waste Bank:

The first thing that the community does as customers of the Sustainable Green Waste Bank is to sort and separation of waste both organic and inorganic recyclable, non-recyclable, and B3 waste/ Hazardous and Toxic Materials. The garbage is put in a separate bag. Then the garbage to be saved must be in a dry and clean condition.

Second, the sorted waste is deposited into the Sustainable Green Waste Bank for further weighed and recorded in the waste bank customer's passbook. The recording process in the passbook will be a benchmark for how much nominal money has been collected by customers so that later they can use it to increase their daily income. After the process is complete, then the waste is put into the means of collecting waste as shown in figure 1 below:



Figure 1: Waste Storage Facilities



Third, after the waste weighing is completed, some of the waste collections that are still unsorted will be carried out a further re-sorting process before being temporarily stacked at the waste bank location. Some of the waste scales are used as raw materials for handicrafts and some are resold to recycling waste sales centers.



Figure 2: Socialization Stage

## Socialization Stage of Sustainable Green Waste Bank

Bank Sampah Hijau Lestari is one of the waste banks in the city of Bandung which was established at the initiative of the NGO Hijau Lestari which cares about the surrounding environment. Community empowerment through this waste bank is one of the alternative choices in inviting people to want to care about waste and start separating their waste from the source of producing waste itself, namely from their respective homes. Efforts that continue to be carried out until now in order to attract public interest are by conducting socialization related to several trainings to make compost from organic waste and make a craft work from inorganic waste. After the socialization stage is intensively carried out, the next stage is to recruit people who want to become customers at the Sustainable Green Waste Bank, but this recruitment process does not require anything that can burden prospective customers.

After officially becoming a member of the Sustainable Green Waste Bank, the community can participate in all the activities held by the Sustainable Green Waste Bank itself. Activities carried out by waste bank managers such as socialization and training to the surrounding community related to the meaning of the existence of waste banks, recording and weighing waste, as well as making craft innovations from inorganic waste basic materials, while those carried out by waste bank customers such as managing their waste starting from home, making handicrafts, making compost, and saving waste to the waste bank. This is in accordance with the activities of the waste bank as a form of empowering the community. The existence of a waste bank can create an empowerment in the community by providing useful waste management education so that the community is more motivated to carry out these activities.

Sustainable Green Waste Bank Bandung City has made community empowerment activities by providing instructions to change people's thinking patterns in managing waste into something of high selling value. The Bandung City Sustainable Green Waste Bank can create economic development with the presence of a creative entrepreneurial center so that it becomes an added value to continue to benefit many people. Every effort has been made as much as possible to socialize this waste bank. With the presence of a waste bank, the community realizes the benefits behind the waste that can bring prosperity not only to individuals but to all levels of society.

The role given by waste banks is in accordance with exchange theory which states that waste banks as a place to exchange their waste for a nominal amount of money that can be saved. People become motivated to deposit waste savings because the more they save, the more results they will get. That is actually the key to the success of a community empowerment where many parties feel benefited and have a very high value of benefits for the progress of development in the community

itself. That will be the source of innovation that will be applied by other communities.



Figure 3: Gardening Program

## Supporting Programs in Community Empowerment through Sustainable Green Waste Bank

Environmental problems are problems that are increasing every day along with the increasing population. Therefore, in order to create public awareness regarding the importance of preserving the environment, an innovation is needed to make people aware of participating in protecting the surrounding environment. The role of the waste bank itself is to increase environmental awareness by designing a program that aims to make the community empowered in the environmental field.

The implementation of supporting programs in community empowerment through the Bandung City Sustainable Green Waste Bank aims to encourage community participation to be more sensitive to the environment. A clean environment is an environment created from high public awareness of the environment. For this reason, in order to attract a community, a special innovation is needed so that they are aware and moved to always protect the environment where they live. Supporting programs designed by the Waste Bank managers include gardening programs, waste recycling, and processing kitchen waste into organic fertilizer.

Gardening Program, with the establishment of this gardening program, waste bank customers are given an understanding of the need to protect the environment in the community. The environment is an important source of life, if people can preserve the surrounding environment then they will get a healthier life and be free from many diseases that are quickly transmitted. This gardening activity is a training to manage a small yard by cultivating vegetable crops. The history of this activity is motivated by the large amount of free space around the waste bank location.



**Figure 4: Waste Recycling Products** 

In addition to improving the quality of the environment, the purpose of holding this activity is to introduce the community to take care of plants in a fun and fun way. This activity is a solutive form to grow crops on limited but productive land and has good health benefits. In the process of

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these activities, waste bank customers are given knowledge related to managing easy vegetable plantations and sharing experiences with each other. To support gardening activities, the managers of the Sustainable Green Waste Bank will prepare land, seeds and other supporting tools for use by waste bank customers.

Waste Recycling Program, with the establishment of this waste recycling program, customers are taught to make creations from inorganic waste that is not sold to waste collectors, for example beverage and food wrapping waste. The creation of waste will produce a product that is of high value, can be made into bags, wrapping gallons of drinking water, prayer mats, tissue holders, and so on. Thus, people will increasingly innovate with the results of their creativity that can be sold to all corners of the region so that they can be an inspiration for others to be more motivated to do the same as what is done by customers of the Bandung City Sustainable Green Waste Bank.

Waste Processing Program into Organic Fertilizer, with the establishment of this program, waste bank customers are taught to manage organic types of waste left over from landfills. In the management process, the manager of the Sustainable Green Waste Bank uses BioMethaGreen / BMG technology. The technology is very easy to do in all environmental conditions such as households, markets, housing, offices, restaurants, hotels, houses, and farms. The end result of BMG is very useful as a biogas and liquid organic fertilizer. Liquid organic fertilizers can be beneficial for plant fertility or supplements for fish and poultry. That way, the liquid organic fertilizer will be useful for the gardening community and others. Biogas can be useful for alternative fuels as a substitute for LPG fuel or power generator plants.

The waste bank program is one of the activities that can provide education to the community to manage waste and foster a sense of public awareness of the environment. Indirectly, the Sustainable Green Waste Bank has contributed a lot in providing education for the community in sorting their waste, so that it will form new habits in overcoming waste problems that have not been done by many others.

## **CONCLUSION**

The presence of the Sustainable Green Waste Bank can provide education to the public to become more aware that waste, which has been underestimated in existence, can actually bring economic prosperity to the community. The waste bank is an inspiration for the community to be enthusiastic in saving the waste that has been sorted in the waste bank. Community empowerment through the Sustainable Green Waste Bank in Cicaheum Village, Kiaracondong District, Bandung City can be realized through two stages of activities including the socialization stage of managing waste from home and other supporting programs to create community concern for the surrounding environment. These programs include gardening programs, waste recycling, and processing waste into organic fertilizer.

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