Waste Bank: The Strategy and Community-Based Environmental Governance

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Abstract

Waste bank program as community-based environmental government empower community and emerges their awareness to sort, recycle and utilize waste wisely in order to reduce the waste in landfill area. This paper intends to describe and analyze the strategy of waste bank program conducted in Bandar Lampung City through the coordination between local government, and public especially in neighborhood area. This study is descriptive-qualitative analytics research based on interview, observation, and desk study. This paper show that the strategy of waste bank program influence most by the factors of project management and organizational performance. Lack of facilities and infrastructures also become the main obstacle in the implementation of this strategy in Bandar Lampung.

Keywords: Waste bank, Community, Environmental Governance, Bandar Lampung;

1. Introduction

In our daily life, waste is defined as the residual daily activities of human and / or natural processes in the form of solids. Specific waste, which is due to its nature, concentration, or volume, requires special management. A waste producer is any person or a result of natural processes that generate waste generation. Waste or rubbish, trash, junk, garbage, its depending on the type of the material or the regional terminology (in Indonesia simply said as sampah), is unwanted or undesired material or substance that no longer has a use or purpose and needs to be disposed. The Bank is the deposit place, typically for economic capital. In this research, waste bank is new waste management concepts in community level by teach the community to segregate their garbage and giving more economic value to the garbage. At waste banks, the waste created by the household is divided into two categories – organic and non-organic. Organic waste gets turned into compost, while non-organic waste is divided further into three categories: plastic, paper, plus bottles and metal. Waste classification is based on several criteria, which are origin, composition, shape, location, process of occurrence, nature, and type. According Bahar source of waste can be classified into three groups, the garbage comes from domestic activities, (domestic refuse), from commercial activities (commercial refuse) and from industrial activities (industrial refuse). The impact of waste generates environmental aesthetic values, causes diseases, decreases resource values, pollutes, and clogs

1 Undang-Undang Republik Indonesia Nomor 18 Tahun 2008
Nowadays, most people still think waste as an useless item, not as a resource that needs to be utilized. Community managing solid waste is still at the point of end-of-pipe, such as: garbage collected, transported, and disposed of to landfill. The waste management paradigm based on final disposal should be changed and the lifestyle of people who think of waste as something to be discarded and do not have any economic value should be replaced with new paradigm. The new paradigm that views waste as a resource that has economic value and can be utilized. The selection of waste is the first step that should be taken from the source, such as neighbourhood, schools, offices, hospitals, markets, terminals and any other place for community activities. One of the strategies of applying segregation in the effort of garbage restriction, which is an important part in waste management at community level with incentive pattern, is Waste Bank.

Based on the Regulation of the State Minister of Environment Number 13 year 2012 on Guidelines for the Implementation of Reduce, Reuse and Recycle with Waste Banks strategy, Waste Bank is one of the central government programs aimed at reducing the volume of waste transported to landfills (Tempat Pembuangan Akhir or TPA) in order to require comprehensive and integrated waste management from upstream to downstream to provide economic benefits, healthy for the community and safe for the environment and can change people's behavior. Reduce means lowering the amount of waste produced; reuse means as using material repeatedly, and recycle means using materials to make new products.

The Bandarlampung City has serious waste management problems. Therefore, community support is needed to solve this problem. The problem in Bandarlampung City is that not all garbage is transported to landfill. Its come from lack of public awareness in waste disposing that does not match the place and time of garbage disposal. In addition, the limited number of garbage disposal officer is not proportional to the size of the city area. The difficulty of getting land to be used as landfills in some urban villages with high population density and occupancy. The low model of community involvement that the government strives to manage solid waste because the waste is still considered the responsibility of the government, while the community is only obliged to pay for waste that is discarded. Bandarlampung City Government has made Regional Regulation No. 05 of 2015 on Waste Management In Bandarlampung City Area. In Article 20 Paragraph 1, which contains waste reduction with waste reduction (reduce), recycling waste (waste), recycle (waste) recycle. Based the city government regulations Bandarlampung it is expected that people can manage the waste so as to reduce the pile of waste in the landfill.

Bandarlampung Municipal Government through Sanitary and Cleanliness agency in cooperation with Mitra Bentala (NGOs) has made efforts to cultivate public awareness, that the problem of waste is not the responsibility of government alone but the responsibility of the community as well. This conducted by making waste bank in some community neighborhood. The implementation of Waste Bank in Bandarlampung City is fully done by Agent of change (AOC) team. The AOC team consists of 10 people confirmed by the Mayor of Bandarlampung on September 26, 2014. The AOC team is tasked to develop the Garbage Bank in 3 locations and 3 Municipal Garbage Bank Bandarlampung.

The implementation of Waste Bank in Bandarlampung City can be seen from the development of existing Waste Bank in Municipal there are only 3 (three) from 126 (one hundred and twenty six) district implementing Bank Sampah. Trash Bank is located in South Panjang district, established in February 2014, this Waste Bank is called the Green Village Waste Bank. Another Waste Bank is located in the Kota Karang district, and last in the North Panjang district.

This paper focusing on how the strategy implementation of waste bank and how this top-down policy not only focusing on government as the main actor but also involved community in order to created community based environmental governance for Bandar Lampung city. Waste bank program as community-based environmental government empower community and emerges their awareness to sort, recycle and utilize waste wisely in order to reduce the waste in landfill area. Data

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collection is done through observation, interview and documentation. Data analysis through three stages is data reduction, data presentation, and conclusion.

2. The Strategy of Waste Bank

In this paper, the strategy of waste bank in Bandar Lampung city describe as the implementation of 3R Program (Reduce, Reuse, and Recycle) Through Waste Bank in order to create Community Based Waste Management. It is show that the objectives of the strategy that accurately reflect the intent of the 3R program through the Waste Bank. Strategic management planning that described the performance standards in the 3R program have already fully understands by the implementing organization. The performance measurement of the implementing organization assessed with the objectives to be achieved from the 3R program through the Waste Bank strategy. Management control system and social sanction in the implementation of 3R program through Waste Bank will maintain executor accountability.

Community participation is the most important thing in waste management. In the future, the community's active role is a major factor in the waste management's susceptibility. Waste management based Law No. 18 year 2008 on Waste Management, is a systematic, comprehensive, and continuous activity which includes waste reduction and handling. Each household is advised to manage its own waste through 3R (reduce, reuse, and recycle). Reduce which is to minimize the goods or materials that we use, the more we use the material the more waste is generated. Reuse means as sorting goods that can be used again, avoid items that are disposable, discard. This can extend the usage time of the goods before it becomes waste. The last is recycle, but not all goods can be recycled. However nowadays, many sectors of households start to use waste into other goods.

The purpose of the establishment of Waste Bank is to solve the problem of garbage that until now has not been well resolved properly, that is to familiarize people not to throw garbage carelessly, awaken the people to want to sort the garbage so that the environment clean, maximize the utilization of used goods, traces can be useful, and reduce the amount of waste that is wasted. The first think to be done in Waste Management is Waste segregation by the community.

Waste Bank is one of the alternatives to invite people to care about waste. The Waste Bank management system is household-based, providing cash rewards to those who succeed in sorting and depositing a certain amount of waste. The garbage that is deposited to garbage bank is divided into several types such as organic and non-organic waste, for example: plastic, iron, vegetable pieces and others. Garbage Bank in its implementation can reduce the high number of garbage in the community and in TPAkarena community segregate their own garbage, exchange their garbage to the bank and dispose of garbage in Waste Bank. Thus the volume of waste in the community and in the TPA can be reduced or commonly called the volume reduction. Thus, the Waste Bank can not stand alone but must be integrated with the 3R movement.

Benefits of Waste Banks is to reduce the amount of waste in the community, increase income for the community, create a clean and healthy environment and foster self-awareness of the community about the importance of maintaining and respecting the environment.

In the Regulation of the State Minister of the Environment of the Republic of Indonesia Number 13 of 2012 article 5 on Guidelines for the Implementation of Reduce, Reuse and Recycle through Waste Banks, there are some procedure to be done:
1) Sorting garbage. The customer must sort the garbage before depositing to the Waste Bank, where the waste is sorted according to the type of materials: plastic, paper, iron, glass and others.
2) Delivery of garbage to Waste Bank. The time of deposit is done according to the agreed schedule.
3) Weighing. The garbage that has been deposited into the Waste Bank is then weighed according to the type of garbage.
4) Recording. The officer records the type and weight of the waste after weighing. The result of the scales is then converted into money (Rupiah value) which is then written in a savings book.
5) The proceeds from the sale of the submitted waste shall be included in the passbook; and profit sharing of waste sales between savers and executors.
Based on the results of research implementation of the division of tasks in the Waste Bank strategy is running well despite the lack of marketing positions that have no human resources. Because during this process of Waste Bank product marketing is done by all parties involved in Bank Trash. There is no specific responsibility for this task. The system of control management and social sanction in Waste Bank program also has been implemented. It is just the intensity of the implementation of monitoring in the field is still not maximal, which is done only once a month. For sanctions in case of violation in the implementation of the Waste Bank strategy in Bandar Lampung City there is no written sanction but only social sanction obtained if there is a violation in the implementation of the program.

The next supporting factor is adequate infrastructure facilities in every Waste Bank in Bandarlampung City. Adequate infrastructure facilities can facilitate the implementation of Waste Bank to achieve the desired goals. Some facilities and infrastructure in the Waste Bank include large scales, savings books for customers, administrative books, plastic chopper machines and composting machines. Based on the research that the facilities provided by the Environmental Agency to the Waste Bank in Bandarlampung City does not operate because of there is no human resources at South Panjang, North Panjang and Kota Karang district Waste Bank that capable in operating the facility. No further operation of the facility is due to the need for funds to run the machine that use diesel fuel. For the Northern Panjang there is no waste recycling activities become the cause of non-operation of such facilities.

2.1 Trash to Cash

Based on the workshop “Trash To Cash” that in reducing the amount of waste in Bandarlampung City resulted in efforts to reduce garbage in Bandarlampung city with the development of Waste Bank in three urban villages namely South Panjang, North Panjang and Kota Karang district. The Waste Bank strategy is in cooperation with the Municipal Government of Bandar Lampung, PT.Indofood, Mercy Corps, and Bentala Partners. Implementation of the program is fully undertaken by the agent of Change (AOC) team.

The unstable price of garbage is one of the inhibiting factors from the implementation of Waste Bank. Such price changes are often unknown to the management of the Waste Bank due to the lack of information provided by the collectors who have cooperated with the Waste Bank. This ignorance can cause losses in the Waste Bank because the price of waste offered is lower than the price set by the collectors. For the price of garbage in every Waste Bank in Bandarlampung City is the same because in every Waste Bank in Bandar Lampung City has cooperated with the same collectors. However pricing is fluctuating and must adjust to the price given by the collectors.

In addition, there are no fixed facilities in the marketing of products provided by the government. All this time the product is only marketed through exhibitions there is no fixed place in marketing the recycled products. It is known that there is no fixed place in the marketing of recycled Bank Waste products because marketing is only done through certain events. Recycled product results are stored in the house of each board of the Waste Bank because there is no place in the Waste Bank because it is full of waste deposits of customers.

3. COMMUNITY BASED ENVIRONMENTAL GOVERNANCE

The consistency of strategy implementers can be seen with the objectives to be achieved by several indicators used to measure the performance of the Waste Bank organization in Bandar Lampung City are as follows; time of Waste Bank Strategy implementation, 3R program, and operational procedures of each Waste Bank. The results show the timing of the execution that occurred in the field not only on Saturday and Sunday but the manager of the Waste Bank received in addition almost everyday. The timing of the Waste Bank in South Panjang and North Panjang is flexible although there is already a set time on Saturdays and Sundays, but in the Waste Bank district receives outside the day if there are customers who want to deposit. For in the Kota Karang already implement in accordance with the schedule set that is on Saturday to received a waste deposit.

On the field and observation researchers, only small part of the community who do the sorting before taken to the Waste Bank. In order to increase the community participation to sort out the waste
generated, the Waste Bank in Bandar Lampung City sets a different price between the sorted and unsorted garbage. Because if the community conducts the election in advance the community can utilize reusable or recyclable waste, and will impact on the disposed waste will be a little with this purpose of the Waste Bank to reduce waste in the landfill is reached. The achievement of the operational activities in each of the different Waste Banks is due to various factors that affect as well as the environment around the Bank. Deposit each week is fluctuating because every week not all customers deposit their garbage. Every week the number of customers who deposit only 2-4 people. So that earnings deposits each week can not be predicted.

3.1 Agent of Change

Future planning for AOC (Agent of Change) team together with Mercy Corps Jakarta as partners in the implementation of Waste Bank held a meeting to discuss what activities should be done by AOC / LBH through the formulation of AOC team work plan. The meeting was attended by members of AOC / LBH and representatives of Mercy Corps Indonesia. Meetings are held in the form of open discussions. The meeting resulted in AOC / LBH Team Activity Plan with 9 activities; meetings with city teams, junk bank launches, evaluation of follow-up plans of friendship programs / sustainability plans, dissemination, publications, monthly reports, quarterly reports, AOC legalization, preparation and consolidation of AOC teams, and AOC capacity building.

3.2 Street Level Bureaucracy

Lack of support from street level bureaucracy, such as district and neighbourhood heads leader in Waste Bank location will affects the participation of the community. People see if the lower level government does not participate in the program they are reluctant to get involved as well. The inclusion of bureaucracy in the kelurahan and kecamatan affects the level of participation in the garbage bank program so that the implementation process of the Waste Bank strategy becomes obstructed. Inhibiting factors in the implementation of the Waste Bank strategy in Bandar Lampung City, such as the absence of support from Street Level Bureaucracy, human resources have not been able to operate the existing facilities, the absence of a fixed place in the marketing of the recycling products from waste bank, and unstable waste prices. The city government of Bandar Lampung should pay more attention to the Waste Bank program by issuing a warrant to the street level bureaucracy in Bandar Lampung city to foster and participate in the Garbage Bank program.

4. The Effectiveness of Waste Bank

The Waste Bank strategy implementation has been done effectively. It shown from the clear assignments and objectives that accurately reflects the intent of this policy. In relation to the duties and objectives of the 3R program Through Waste Bank, the implementers have understood the duties and objectives of the Waste Bank program and have implemented in accordance with the Regulation of the State Minister for the Environment of Indonesia Number 10 of 2012 Ministry of Environment About the Implementation Guidelines of Reduce, Reuse and Recycle through Waste Bank.

Strategic management planning that allocated tasks and performance standards in order to implementer’s organizations have been done. In relation to the plan management at Waste Bank, it has implemented effective planning management to allocate tasks and performance standards through workshops and meetings conducted by Waste Bank facilitators. Performance measurement of executing organizations already assessed with goals to be achieved. It means the strategy implementers are good enough to be able to adjust the performance of the implementers with changes in the existing environment to achieve the goals to be achieved. That is by implementing the Waste Bank in accordance with the established time, then implementing Waste Bank by applying the 3R system. The management control system and social sanction done to make subordinates to stay accountable. It can be seen from the point of view of the management system of control and social sanction, to keep the subordinates accountable, the implementation of monitoring of the Garbage
Bank program in Bandar Lampung City has not been maximized. This is from the absence of any sanctions in the event of a violation in the execution.

The city government of Bandar Lampung must provide a marketing site for recycling products of Waste Banks in the city center, to facilitate marketing. The city government of Bandar Lampung can cooperate with the tourism department for marketing, so that the recycle waste product can attract local and foreign tourists. The main purpose of this strategy is not only to create Lampung as Clean and Green City but also to create the new modest way in empower the community, which is the Economic Creative for Community that can be seen in the cycle below.

![Cycle of Waste Bank as Community Based Environmental Governance](source: field research observation 2017.

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