

Waste Bank as an Alternative to Waste Management in Rural

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Abstract

Waste is an inherent problem in the life of every individual. Population growth followed by changes in people's consumption patterns has led to an increasing volume, type, and characteristics of waste. The purpose of service through this waste bank is as an alternative in managing household waste produced by the community. The method of activity conveyed in the socialization and counseling of this waste bank is a method of awareness or increasing public understanding of waste management through waste banks. The conclusion is that waste bank education is carried out through socialization and counseling to the community by providing teaching in sorting waste and growing public awareness in waste management. The establishment of a waste bank in the community that is integrated with the 3R program movement can provide direct benefits, not only economically, but also the realization of environmental health, with clean, green, comfortable, and healthy community conditions. Another benefit economically is that it has an impact in the form of additional income, while the benefit for the environment is that it can reduce the generation of waste generated by the community.

Keywords: waste management, waste bank, waste bank education

Introduction

Waste is a problem which is inherent in the daily life of each individual. Population growth followed by changes in people's consumption patterns causes an increasing volume, type, and characteristics of waste present in people's lives. Unfortunately, the increase in volume, type, and characteristics of this waste is not followed by proper waste management. The waste management that has been carried out so far has not been in accordance with environmentally sound waste management methods and techniques, causing negative impacts on public health and the environment. Waste that is disposed of by the community if disposed of carelessly or piled up without proper management, will cause various serious health impacts for the community and the environment. Therefore, waste has become a national problem whose management needs to be carried out comprehensively and integrated from downstream to upstream. This is in order to provide economic benefits, healthy for the community and safe for the environment.

Public awareness in the context of waste management, education to the public about waste management is currently very necessary. Active participation from the community is important to identify in the waste management process. Changes in the way of thinking formed in society about household waste management in order to reduce waste from the source must be integrated in a project that is mixed with a waste bank (Singhirunnusorn et al., 2012). Based on the philosophy of waste management, in accordance with Law Number 18 of 2008 concerning Waste Management, currently it is necessary to change the way people view waste and how to treat and manage waste. People's perspective on waste should no longer view waste as a result of wastes that are worthless. However, waste should be viewed as something that has use value and benefits.

The practice of processing and utilizing waste must be a real step taken by the community in order to implement Government Regulation No. 81 of 2012 concerning Management of Household Waste and Similar Waste of Household Waste. The old way that the community has done in managing waste, namely by throwing it away, must be abandoned by providing education and familiarizing the community to sort, choose, and appreciate waste while developing the people's economy through the development of waste banks (Tallei et al., 2013). This is specifically for community-based household waste management, because domestic waste sources need to be managed independently (Riswan et al, 2011).

People's knowledge, attitudes, and skills in household waste management to recycle are also important in waste management (Akhtar and Soetjipto, 2014). Sorting household waste in the category of organic waste can be used as compost, while anarmonic household waste can be saved into a waste bank to be recycled again and made into something of economic value (Jumar et al. 2014). The adaptation of waste banks to a community is largely determined by community participation. In addition, the community will also determine the sustainability of the waste bank program, so community-based management needs to be considered (Kristina, 2014).

In essence, the concept in a waste bank is to collect dry waste which is then sorted and has management like banking in general. However, in the waste bank, what is saved is not money but waste. People who save (hand over waste) are called customers. In a waste bank, customers have a passbook and can borrow money which will be returned with waste for the money borrowed. The waste that is saved will later be weighed and valued with a certain amount of money which will then be sold to factories that have collaborated with the waste bank or to the main waste bank. An approach that fits the context and needs of society is the key to change. The development of waste banks will help local governments in efforts to empower communities to manage community-based waste wisely and can reduce waste transported to landfills (TPA) (Purba et al., 2014). The emergence of waste processing innovations through waste bank programs is an innovation at the grassroots level that will be able to increase the income of the urban poor (Winarso and Larasati, 2011).

Blimbingrejo Village is one of the villages located in Nalumsari District, Jepara Regency. In this village, waste is a problem with improper management. Socially, this can be seen from the habit of the people who manage their household waste by burning or throwing it into the river. The unavailability of temporary landfills (TPS) in the village and the distance of access to landfills (TPA) are the main causes of people throwing garbage into rivers or burning them. This improper waste management will certainly have a negative impact on the health and cleanliness of the community environment itself. Waste that is thrown into rivers or burned, will cause the environment to become dirty and shabby, causing various kinds of diseases, environmental pollution, air pollution and ecosystem damage.

In 2018, in an effort to better manage waste, Blimbingrejo village had a waste bank. The waste bank is managed by one of the village officials. However, there are several obstacles that cause the waste bank to only be able to run for approximately one year. The obstacles experienced include: (1) the establishment of waste bank management; (2) low public enthusiasm; (3) lack of knowledge of waste bank managers in terms of waste sorting; (4) there has been no guidance from the Environment Agency regarding waste banks; (5) has not received assistance from the Environment Agency; (6) unstable waste prices; and (7) steadily declining waste sales.

One alternative solution that can be done in overcoming this problem is to provide education through socialization and counseling about waste banks to the managers or cadres of waste banks that have been formed and the people of Blimbingrejo village. Education to the community through socialization and counseling aims to make people aware and increase public knowledge of the importance of waste banks in their neighborhoods. Socialization and counseling of waste banks is an

activity that provides teaching to the community in sorting waste and growing public awareness in waste management. The establishment of a waste bank in the community that is integrated with the 3R program movement can provide direct benefits, not only economically, but also the realization of environmental health, with clean, green, comfortable, and healthy community conditions. Another benefit economically is that it has an impact in the form of additional income, while the benefit for the environment is that it can reduce the generation of waste generated by the community.

Method

The method of activity conveyed in the socialization and counseling of this waste bank is a method of awareness or increasing public understanding of waste management through waste banks in Blimbingrejo Village. Here we present directly speakers from the Jepara Regency Environmental Agency (DLH) to provide education to the community about waste banks through the socialization and counseling they provide. In addition, the District Environment Agency (DLH) is also willing to provide guidance to existing waste bank cadres to revive the waste bank that was once built.

The implementation of education through socialization and counseling about waste banks was carried out at Mrs. Astir's house as a village apparatus that became a cadre of waste banks that had been formed. Ibu Astir's house is located at Rt 04 Rw 03, Blimbingrejo village, Nalumsari District, Jepara Regency. The implementation time was carried out in the fifth week of the Real Work Lecture (KKN), which was on Tuesday, August 13, 2019. This activity starts from 18.30 to 21.00 WIB. This socialization and counseling was attended by 70 residents of Blimbingrejo village consisting of mothers of Rt 04 Rw 03, fathers of Rt 04 Rw 03, representatives of Fattayat organizations, representatives of Ansor organizations, and IPNU organizations.

Discussion

Blimbingrejo Village is one of the villages located in Nalumsari District, Jepara Regency. In this village, waste is a problem with improper management. In overcoming this problem, waste banks appear as an alternative. Through waste banks, people are taught to sort waste and grow public awareness in processing waste wisely in order to reduce waste in their environment. In 2018, in an effort to better manage waste, Blimbingrejo village had a waste bank. The waste bank is managed by one of the village officials. However, there are several obstacles that cause the waste bank to only be able to run for approximately one year. The obstacles experienced include: (1) the establishment of waste bank management; (2) low public enthusiasm; (3) lack of knowledge of waste bank managers in terms of waste sorting; (4) there has been no guidance from the Environment Agency regarding waste banks; (5) has not received assistance from the Environment Agency; (6) unstable waste prices; and (7) steadily declining waste sales.

Responding to these problems, providing education about waste banks to the community is very necessary. This waste bank education is carried out by socializing and counseling about waste banks to the community. In this socialization and counseling, speakers from the Jepara Regency Environmental Agency (DLH) were presented. The speaker consisted of 3 speakers. Each speaker delivered a different education to the community. The first education is education about the 3R principle (*Reduce, Recycle, and Reuse*). Based on article 20 paragraph 1 of Law Number 18 of 2008 concerning Waste Management, waste reduction includes three things, namely limiting waste generation (*Reduce*), recycling waste (*Recycle*), and waste reuse (*Reuse*), which is then called waste management with the 3R principle (*Reduce, Reuse, and Recycle*).

Reduce is an effort to reduce the pile of waste that is carried out from before the production of a product or its packaging until the end of the use of a product or its packaging. *Reduce* can also be interpreted as waste reduction activities or behavior patterns that can reduce waste production and

not carry out excessive consumption patterns. *Recycle* is an effort to use waste into useful items after going through a processing process first. Meanwhile, *reuse* is an effort to reuse waste according to its function or different functions without going through a processing process first. The second education is about knowledge about waste banks, how to systematically collect waste in waste banks, about how to sort waste that can be accepted by waste banks, and money management systems in waste banks. While the last one is providing motivation to the community to support the running of a waste bank. This motivation must be given to the community, so that the community is aware of the importance of waste management, which actually the waste still has a selling value.

In addition to providing socialization and counseling on that day, the Jepara Regency Environmental Agency (DLH) is also willing to provide guidance and assistance to waste banks that have been operating. During the implementation of this socialization and counseling, the response and enthusiasm from the people who came was quite high. This can be seen from the emergence of questions submitted by the community to the speakers. This good response and enthusiasm is certainly a positive signal that can give hope for the re-operation of waste banks in the village with the support provided by the community.

The inhibiting factor of the implementation of socialization and counseling is the difficulty in gathering audiences. In this activity, the audience is less inclusive as a whole. The audience is only representatives from several community groups and organizations in the village. In this case, it is due to limited facilities and infrastructure in supporting activities.

Conclusion

Efforts to reduce waste in Blimbingrejo village were overcome by holding a waste bank. Waste banks are valued as an alternative system to reduce and process waste. But the waste bank in Blimbingrejo village can only run for one year. The factors that are obstacles for waste banks are no longer running because the waste bank management has not been formed, low public enthusiasm, lack of knowledge in waste selection, have not been able to get guidance and assistance from the Environmental Agency regarding waste banks and unstable waste prices.

In responding to this in Blimbingrejo village, socialization and counseling on waste banks were held. In the socialization, several things were conveyed, including: First, education about 3R (*Reduce, Reuse, and Recycle*), second, education about technical aspects in waste bank management and community motivation to care about the existence of waste.

In the socialization and extension activities of the waste bank in the welcome of the people of Blimbingrejo Village, the response and enthusiasm in the forum was quite high. However, in gathering people to participate in counseling, it does not cover all walks of life due to limited places and times.

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