

WASTE MANAGEMENT STRATEGY BASED ON COMMUNITY EMPOWERMENT THROUGH WASTE BANK IN BANDARRAYA VILLAGE

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Abstrak :

Sampah merupakan salah satu permasalahan lingkungan hidup yang saat ini belum dapat teratasi dengan baik. Terbatasnya Tempat Pembuangan Sampah (TPS) di Kota Pekanbaru khususnya di Kelurahan Bandarraya, menjadikan permasalahan sampah ini semakin kompleks. Bank sampah menjadi salah satu pilihan dalam strategi pengelolaan sampah. Bank sampah merupakan salah satu program yang dapat mengubah cara pandang masyarakat terhadap pengelolaan sampah. Program pengabdian kepada masyarakat ini bermitra dengan DLHK Kota Pekanbaru. Beberapa permasalahan yang ada pada masyarakat, antara lain: Masyarakat memiliki permasalahan pokok seperti kurang pengetahuan tentang bahayanya sampah, pengelolaan/pemilahan sampah, kurangnya pengetahuan tentang bank sampah, cara kerja, serta menambah pendapatan dengan cara memilah dan menyetorkan ke bank sampah. Tujuan dari kegiatan pengabdian kepada masyarakat ini ialah agar dapat meminimalisir permasalahan sampah yang terjadi di kelurahan Bandarraya, serta memberi penghasilan tambahan bagi masyarakat. Metode pendekatan yang akan dilakukan berdasarkan kesepakatan dengan mitra adalah dengan sosialisasi tentang sampah dan pengelolaannya. Target luaran yang diharapkan adalah masyarakat teredukasi untuk melakukan pemilahan sampah dan menyetor ke Bank Sampah, sehingga terciptanya lingkungan yang bersih dan sehat, serta menambah pendapatan masyarakat dari pengelolaan sampah yang ada. Diharapkan peran Pemerintah dalam pengembangan bank sampah ini.

Kata kunci : Sampah, Bank Sampah, Pelayanan Masyarakat

Abstract :

Garbage is one of the environmental problems that currently cannot be resolved properly. The limited number of waste disposal sites in Pekanbaru City, especially in Bandarraya Village, makes this waste problem more complex. The waste bank is one of the options in the waste management strategy. The waste bank is one of the programs that can change the public's perspective on waste management. This community service program is partnered with the Environmental Hygiene Department of Pekanbaru City. Some of the problems that exist in the community include, among other things, The community has basic problems such as lack of knowledge about the dangers of waste, waste management/sorting, lack of knowledge about waste banks, how to work, and how to increase income by sorting and depositing items in the waste bank. The purpose of this community service activity is to minimize waste problems that occur in the place village, as well as provide additional income for the community. The implementation method that will be carried out based on an agreement with partners is waste socialization and waste management training. The expected output target is that the public is educated to sort waste and deposit it into the Waste Bank, so as to create a clean and healthy environment, as well as improve the community's economy through existing waste management. It is hoped that the support and role of the to develop a better waste bank

Keywords: Waste, Waste Bank, Community Service

INTRODUCTION

Garbage is materials or objects that are discarded because they cannot be reused. Based on Law and Regulation Number 18 in 2008 base on Waste Management, the waste definition is the rest of daily activities by humans or natural processes that have solid or semi-solid forms in the form of organic or inorganic substances that are biodegradable or non-biodegradable and are no longer useful which are then thrown away. Garbage can cause various negative impacts on the environment and health. The amount of waste that cannot be handled will cause various problems, both directly and indirectly for city residents. Garbage is one of the problems that will always develop along with the speed of population growth in an area. The goods are consumed and the more business fields built by the community, based on the volume of waste produced. According to the Minister of Environment and Forestry, the waste produced by Indonesia is dominated by organic waste with a percentage of 60% (Permana, 2019). Waste problems that occur in Indonesia can also be in the form of the absence of legal firmness regarding waste policies, the lack of waste management efforts, an inadequate temporary dump system, and a lack of public awareness in reducing the volume of waste (Hanifah, 2017). In Indonesia, only about 86.7% of households (both in villages and cities) get access to waste management services and only about 60% of waste is transported to the next process (Damanhuri, 2011).

Waste management in housing or community settlements in Pekanbaru City is still mostly done illegally. Around 40 percent of waste management carried out independently by groups of community elements is disposed of to illegal temporary dump (TPS) and another 30 percents of waste management in community settlements is disposed of to TPS/Trans Depo. The management that can be carried out by DLHK is only about 30% with details of 5 percent or department stores waste being transported by DLHK and partners and disposed of at the Muara Fajar TPA. Meanwhile, another 25 percent of waste in housing or residential areas is transported and disposed of to the TPS/ Trans Depo. And then DLHK together with partners transport and dispose of waste to the Muara Fajar TPA (www.pekanbaru.go.id, accessed in 2022).

Waste management in Pekanbaru City is divided into 3 Zones. Zone 1 services are carried out by PT. GTJ. The contract period is from March 18 to December 23, 2021. With a fleet of 8 motorcycle

tricycles, 9 pick-up trucks, 40 tipping trucks, 2 large tipping trucks, 1 becholoader, and 200 workers. The potential for transporting waste to the TPA is 355.29 tons per day. The area of Bina Widya District, Tuah Madani District, Payung Sekaki District and Marpoyan Damai District. Furthermore, in Zone 2 services are carried out by PT. SH. The contract period is from March 18 to December 23, 2021. With a total fleet of 7 motorcycle tricycles, 8 pick-up trucks, 34 tipping trucks, 2 large tipping trucks, 1 becholoader, and 150 workers. The potential for transporting waste to the TPA is 314.03 tons per day. The areas are in Bukit Raya District, Lima Puluh District, Sail District, Pekanbaru City, Tenayan Raya, Kulim, Sukajadi, and Senapelan District. Meanwhile, in Zone 3, the service is self-managed by the Waste Management Division of the DLHK. With a total fleet, 4 pick-up units, 18 tipping trucks, and 90 workers. The area is in the Rumbai District, West Rumbai District and East Rumbai District.

Based on Law and Regulation Number 18 in 2008 base on Waste Management, it is stated that the role of the community is to participate in household waste management, in terms of reduction (covering activities of limiting, reusing, and recycling) and waste handling (covering sorting, collection, transportation, processing, and final processing). Waste management is not only carried out in urban areas, but also includes rural areas. Waste management and processing provide added value so that waste can be turned into something useful. Waste reduction is meant by reducing and limiting the amount of waste generated, especially from the household and market domains, by recycling and reusing it through 4R activities, namely Reduce, Reuse and Recycle until Replant (Lestari et al., 2020).

Several studies recommend a community-based waste management system with the creation of a Waste Bank. This community empowerment strategy is expected to create independence in the community and improve their abilities, one of which is in waste management (Tomboelo, 2021). According to research conducted by Nurhidayah (2017), the implementation of community empowerment through the existence of a waste bank can create a clean and healthy environment, provide additional income for the community, and in a social impact can increase the bond between communities in managing waste banks. In addition, another positive impact that can occur with community empowerment through waste banks is that it can increase environmental comfort for the

community and the emergence of friendship bonds between customers (Mahbuban, 2016).

In Bandarraya Village, waste is still a problem because not all households have access to waste management. Waste in some places is still thrown away carelessly, causing environmental problems. Waste that is separated from the source has the potential to be reused and some can be resold. This community empowerment activity can be an opportunity for Bandarraya Village residents to increase knowledge about good and correct management systems. It is hoped that the establishment of a waste bank in Bandarraya Village will minimize waste problems, as well as provide additional income for the community.

IMPLEMENTATION METHOD

Location and Time of Service

The service carried out by the team of the community Service Program of Riau university is located in Bandarraya Village, Payung Sekaki District, Pekanbaru. This service activity took place from July to August 2022.

Implementation Stage Method

This activity is carried out by the service team using 3 methods of implementation stages, including:

1. Preparation Stage
 - a) Garbage review in Bandarraya Village
 - b) Discussion with Pekanbaru City DLHK partners
 - c) Meeting with the women of Family Welfare Programme in Bandarraya Village
 - d) Prepare questionnaires and waste bank brochures
2. Stages of Implementation
 - a) Socialization conducted by DLHK Pekanbaru City
 - b) Socialization carried out by the community service team
 - c) Distribution of questionnaires and brochures to the public
 - d) Establishment and inauguration of the Waste Bank
3. Reporting Stage
The Service Team makes a report on the results of the activities.

The community involved in this activity consisted of the DLHK of Pekanbaru City, The women of Family Welfare Programme, village officials, and the community. The implementation

method applied here is fill in the form of waste socialization and waste management training. Where the community is given an empowerment program in the form of the formation of a waste bank and some waste management training. This community service activity is implemented through the results of a field survey conducted on 50 of households samples in Bandarraya village that there are many waste problems in Bandarraya Village and there is no special handling of waste and its management.

Then the problems that arise from the community are discussed and prioritized using the USG (Urgency, Seriousness, and Growth) method. Based on the results obtained, the priority problems that must be addressed are irregular waste management in Bandarraya Village. Some of the activities carried out to support the establishment of the Bandar Bertuah Waste Bank are the socialization of waste sorting, socialization and training on waste management and the inauguration of the formation of the Waste Bank. Indicators of target achievement in the usefulness of the Bandar Bertuah Waste Bank program are measured by giving questionnaires for each training and socialization activity, the community has started to register as customers of the Bandar Bertuah Waste Bank, and payments for waste through waste bank savings. That condition will solve some of the waste problems in society.

Waste Banks can provide knowledge to the public regarding the correct waste sorting process, provide awareness regarding the importance of environmental hygiene and can increase productivity through waste management training so that they can produce a valuable product and earn additional income for economic independence (Ahmadi, et al 2020). The first activity carried out was in the form of socialization related for the sorting of waste according to its type to the people of Bandarraya Village. Socialization has a positive influence on knowledge. This activity is carried out by entering the community recitations into every RW in the Bandarraya village. The socialization began with the distribution of questionnaires and brochures to all participants present, the distribution of questionnaires aimed to determine the level of knowledge of residents about waste banks, which was then continued with socialization and questions and answers guided by the community service team.

RESULTS AND DISCUSSION

Results

a. Results Before Socialization

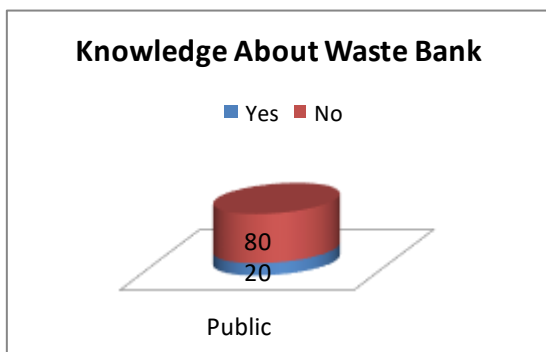
The socialization began with the distribution of questionnaires and brochures to all participants present. Based on the results of the questionnaire:

1. Good And Correct Waste Management



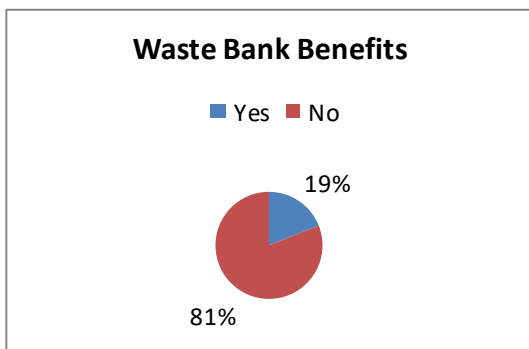
It is known that the average score of participants during the questionnaire regarding proper and correct waste management is 82%.

2. Knowledge About Waste Bank



From the results above, we can see that 80% of the people do not know about the Waste Bank and only 20% know about it.

3. Benefits of the Waste Bank



At the point of the benefits of the waste bank, we can see the result that the community also does not know it, namely 81% answered no.

Results After Socialization

After being socialized by the DLHK to RW, RT, Women of Family Welfare Programme they were very enthusiastic and very supportive of the program regarding the waste bank, the community response was very good, it was supported by the questionnaire given regarding the points of supporting the waste bank program, the community answered yes as much as 78%. After the socialization and training there was an increase in public knowledge about waste management, then the activity of establishing the Bandar Bertuah Waste Bank was carried out with the aim of being able to overcome the waste problem in Bandarraya Village.

Discussion

Community service regarding the establishment of a waste bank to improving the economy of the Bandarraya urban village community has been carried out smoothly. The activities that have been carried out are as follows:

a. Reviewing the location of the place for socialization.

The service team conducted a site survey and after knowing the location, the service team coordinated with partners.



b. From the results of the coordination between the service team and partners, it is known the problems they are facing and determine the time to conduct socialization and training, negotiate with Women of Family Welfare Programme, Hamlet and Bandarraya Village.



c. The service team prepares both the materials and equipment needed.



- d. The socialization of the activities was carried out in Bandarraya Village, together with DLHK Pekanbaru City, PKK and Bandarraya Village women by a service team that produced knowledge about the current state of waste and the problems faced by the Pekanbaru City Environment and Hygiene Service (DLHK).



- e. Socialization and training on waste management and becoming a customer of a waste bank to get a healthy environment and increase household income. The results of this activity are knowledge of waste sorting and management, how to set up a waste bank, and how to run a waste bank.



- f. The establishment of the Bandar Bertuah Waste Bank Unit in Bandarraya Village, which was

inaugurated by the Bandarraya Village Head and attended by the Bandarraya community.



The establishment of a waste bank in Indonesia is a concept of a paradigm shift that occurs in waste management (Pratama and Ihsan, 2017). The potential of having a waste bank in an area can solve several problems in society. Starting from the issue of environmental cleanliness to lead to an increase in the community's economy. Waste Banks can provide knowledge to the public regarding the correct waste sorting process, provide awareness regarding the importance of environmental hygiene and can increase productivity through waste management training in order to produce a valuable product and earn additional income for economic independence (Asteria and Heruman, 2003).

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The presence of the Bandar Bertuah Waste Bank can provide benefits for the people of Bandarraya Village in solving waste problems. In particular, it can form citizens' independence in sorting out good and correct waste, collecting it and submitting it to the waste bank and saving it to their respective waste banks. Through various kinds of training activities to support the establishment of BSBB, it can increase the knowledge and skills of the community to be able to manage waste properly and correctly.

Recommendations

It is hoped that the Bandarraya Urban Village government can play an active role in providing more strategic and spacious vacant land or space as the center of the Bandar Bertuah Waste Bank so that the waste capacity can be more. In addition, the Bandarraya sub-district government can play a role in providing incentives for Bandar Bertuah Waste Bank cadres or officers so that they can be motivated in doing their jobs.

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