IMPLEMENTATION OF MANAGEMENT IN WASTE BANKS TO INCREASE ECONOMIC VALUE

Fahmi Fauziah, Andi Hamzah & Ahmad Rozy
Universitas Paramadina, Indonesia
ipanfahmif@gmail.com

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ABSTRACT
Waste waste is one of the most crucial environmental problems, but some people have been able to take advantage of this as household income. Among other things, waste is processed into fertilizer, processed into magot feed, and some types of waste with higher economic value can be sold directly (iron, paper, plastic). Due to the attractiveness of the use of this waste, especially in it there is economic value, it is fitting that waste be managed with management science. This is intended so that all waste management activities can be recorded, and important information is obtained about the revenue from waste management, so that management activities and their income can be better controlled. This activity is carried out at the Pamulang landfill, which can accommodate between 1 ton and 2 tonnes of waste every day. Based on the results of the activity, it was known that this knowledge-sharing activity was very well responded to by the participants, and even the participants felt happy because they had been given knowledge, which was directly related to their activities, especially in generating income.

Keywords: Waste, Management, Income, Economic Activities
INTRODUCTION

One of the obligations of the academic community in implementing the Tri Dharma of Higher Education is to carry out Community Service activities, known as PKM. The PKM activity is an activity that includes efforts to improve the quality of human resources, including in terms of expanding insight, knowledge and increasing skills carried out by the Academic Community as a manifestation of devotion and a form of concern to play an active role in improving the welfare and skills of community members.

Thus, the PKM program is an academic activity carried out by lecturers which is part of the activities of the Tri Dharma Perguruan Tinggi. Of course, with the community service program, lecturers as academic persons are expected to be able to interact and be able to make a positive contribution to society. This hope is the main objective of this community service program in developing the Tri Dharma of Higher Education as mandated by Article 20 of Law No. 20 of 2003 concerning the National Education System (UU Diknas). In Article 24 (2) it is stated; "Higher education has the autonomy to manage its own institution as a center for the implementation of higher education, scientific research, and community service".

The Tri Dharma activity in the form of PKM carried out by lecturers was counseling on waste management through waste banks. As we all know that waste is a source of various diseases, even so, waste can also be an economic source for the community, if you know the procedures for its Management (Rosadi, et al., 2019). Garbage can be useful if management is done well. For this reason, knowledge about waste management provides great benefits for people's lives. Good management not only provides health benefits but also provides economic benefits, especially inorganic waste (Utami, et al., 2019).

Inorganic waste is waste that is difficult to decompose in nature. Inorganic waste includes plastics, paper, glass, and cans / metals. Inorganic waste can be reused and/or recycled into raw materials for similar new products (Suciati, et al., 2020). The sorted waste can bring economic benefits to the community through the existence of a waste bank, as explained in the PERMEN LH No. 13 of 2012 concerning Guidelines for the Implementation of Reduce, Reuse, and Recycle through Waste Banks. Article 1 paragraph 2 of the PERMEN defines a waste bank as a place for sorting and collecting
waste that can be recycled and / or reused which has economic value. Article 2 paragraph 2 explains that 3R activities through waste banks are carried out for household waste and household-like waste.

A waste bank can be in the form of a cooperative or a foundation (PERMEN LH No.13 of 2012, Article 8) with a service area of at least 1 kelurahan (PERMEN LH No.13 of 2012, Appendix I, part B, No 4.e.). Every saver in a waste bank can save 3 types of waste, namely: 1) Paper, paper waste includes newspapers, magazines, cardboard, and duplexes. 2) Plastics, plastic waste includes clear plastics, plastic bottles, and other hard plastics. 3) Metal, metal waste includes iron, aluminum and tin.

Based on the description above, the three lecturers of community service at Paramadina University have built synergies with the community and students regarding waste bank management so that they can provide benefits to the life of the wider community (Triana & Sembiring, 2019). Especially the economic benefits. As described in the Law of the Republic of Indonesia Number 18 of 2008 concerning Waste Management. In Article 1 (5) of the Law, it is explained that waste management is a systematic, comprehensive and sustainable activity which includes waste reduction and handling.

Waste management is carried out based on the principle of responsibility, the principle of sustainability, the principle of benefit, the principle of justice, the principle of awareness, the principle of togetherness, the principle of safety, the principle of security, and the principle of economic value. Waste management aims to improve public health and environmental quality and turn it into a resource.

METHOD

In the implementation of this service, the method carried out consists of several stages of activity, namely the first stage is the Pre-activity stage including a survey of the location and the needs needed when carrying out the service. After that, it was continued by compiling the material, compiling a schedule for giving the material, and distributing the task of the service team. The second stage is the activity implementation stage. At this stage, an understanding of the technicalities of good waste bank management will be given so that it can bring benefits to life. Extension is carried out
using the lecture method in which this method is chosen to provide explanations. After that, it was continued with discussion and question and answer.

**DISCUSSION**

As we all know, the existence of waste cannot be separated from the activities in human life in various sectors. Basically, waste is a material that is no longer used by the end of a process. People still think that waste is useless waste, so that many people dispose of garbage without being properly managed which results in pollution, especially in the area of Tangerang City. Seeing this problem, the community service team feels compelled to contribute to seeing the waste problem that exists in the Tangerang City area.

For this reason, the lecturer team conducted Community Service Activities which were held in synergy with the community, lecturers and several student representatives. This activity was carried out for 2 days, and took place at the Griya Bersih Asri Integrated Garbage Disposal Site, Pamulang. The activity was greeted enthusiastically by the community and of course students and lecturers.

From the PKM activities carried out, an illustration was obtained that the Griya Bersih Asri Integrated Garbage Disposal Site, Pamulang has been operating since 2013. The Griya Bersih Asri waste management facility in Pamulang Subdistrict can accommodate 2 tons of household waste every day. Household waste, such as food scraps, plastic bags and B3 waste (Toxic and Hazardous Materials), are sorted and processed into organic fertilizer and bio gas (Hastuti, et al., 2020).

Organic waste and food scraps and leaves are separated and collected into a reservoir to go through the fermentation stage using microorganisms (Susanti, et al., 2020). Apart from being organic waste fertilizer, it is processed into bio gas using a reactor with a capacity of 10 thousand liters which is able to meet household gas needs around the TPS. For waste that cannot be broken down into fertilizer and has no economic value being recycled, the waste will be burned. In a day this tool is able to process 1 ton of wet and dry waste with an operational time of 8 hours.

From the activities carried out, it can be seen that waste processing at the Pamulang TPST begins with a garbage collection vehicle. Waste transportation from residents is carried out 2 days 1 x in rotation to be processed at TPST into liquid fertilizer and
organic fertilizer. This TPST can produce gas to meet the TPST needs from the waste processing.

Apart from organic waste, it is also managed by dry (inorganic) waste such as paper, bottles, and so on. This management is carried out through the cooperation of the PKK and the waste bank, where inorganic waste is processed into other useful items. To minimize the risk, all TPST workers are required to wear gloves and masks. After work, workers are also required to clean their bodies (shower) and change clothes (Dewanti & Lubna Salsabila, 2020).

In this activity, PKM participants were invited to take a tour of the inorganic waste, which is stored in a waste bank that has been established by the TPST Pamulang, so that the waste is better organized. Furthermore, on the second day of PKM implementation, workers and the community as well as students at the service location at TPST Pamulang received education about the benefits of the Waste Bank which was delivered by one of the lecturers in turn (Arifin, et al., 2020).

The Waste Bank is a concept of collecting dry waste and sorting it and having management like a bank, but what is saved is not money but garbage. Residents who save, who are also referred to as customers, have savings books and can borrow money which will later be returned with rubbish for the money borrowed (Haryanti, et al., 2020).

The waste that is saved is weighed and valued with a certain amount of money will later be sold at the cooperating factory. The purpose of building a waste bank is not actually a waste bank itself (Purwanto, 2019). The waste bank is a strategy to build public awareness so that they can 'be friends' with waste to get direct economic benefits from waste. Thus, waste banks provide direct benefits that are felt not only for the economy, but for the development of a clean, green and healthy Environment (Dai & Pakaya, 2019). This is one of the alternatives to solve the waste problem and participate in preserving the environment, which in turn has a good impact on the earth. No matter how small we do for this earth, it will definitely have a big impact on the survival of the earth itself.

With this education, of course, it is hoped that it can increase understanding of the importance of waste management in a waste bank for environmental sustainability (Santoso, 2020). In fact, this counseling and education also describes the importance of
awareness about the use of appropriate technology in processing waste, the awareness that arises in the participants is expected to bring better action in the future, such as understanding the problems that will arise if this waste problem is not handled properly, and also the benefits and benefits that will be obtained if the handling is carried out properly (Hani & Safitri, 2019).

Basically, the waste bank adopts the principle of "from the community, by the community, for the community". The formation of a waste bank in the community will encourage public awareness to sort waste according to type, recycle and or reuse waste, starting from individuals, families, RT / RW, to the village level. This awareness will lead to a shared sense of responsibility to ensure an environment with minimal waste. In the end, Community Service activities with the theme "Building Waste Bank Management Synergy in the Context of Controlling Environmental Impacts", went well. The most important of all these activities is that all participants are enthusiastic about participating in a series of activities to completion. All participants and the community welcomed the theme presented because this theme was in accordance with the needs of the community. Hopefully with the implementation of this activity which is packaged in community service, it will be one of the implementations of the Tri Darma of Higher Education in building synergy between the community and academic people.

CONCLUSION

The waste bank is one alternative to economic activities that is proven to be a source of livelihood. Therefore, a knowledge is needed in managing it, so that the potential and resources can be maximized, and generate better income. This service activity is proven to increase the enthusiasm of waste bank activists. Even though, empirically, this activity is only a matter of sharing knowledge about waste management, but this can trigger awareness of waste economic actors to improve waste management governance.

REFERENCES


