

# APPLICATION OF THE LOSIDA METHOD (KITCHEN LEFTOVER LODONG) AS AN OPTIMIZATION OF HOUSEHOLD ORGANIC WASTE MANAGEMENT IN PADUKUHAN II KERSAN

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**Abstract** - Waste is the residue of human activity that is discarded as a result of the production process that has no economic value. One of the results of human activity is in the form of household waste. In Padukuhan II Kersan, Tirtonirmolo, Kasihan, Bantul, Special Region of Yogyakarta, there is still a lot of organic waste, especially household waste that has not been managed properly, this is due to the lack of public awareness of the importance of managing waste. To overcome this, students of the Real Work Lecture (KKN) of Sunan Kalijaga Yogyakarta State Islamic University have held a socialization and workshop on handling household organic waste using the LOSIDA (Kitchen Leftover Lodong) method as a good first step to process organic waste. The purpose of this socialization and workshop is to provide knowledge about LOSIDA itself and help the community in reducing the accumulation of waste in the households. This research uses the method of socialization, practice of making LOSIDA, and documentation during the socialization. The results of this research and service showed that residents were very enthusiastic in practicing making LOSIDA for the utilization of kitchen waste produced every day and were able to increase residents' knowledge in managing organic waste.

**Keywords:** Waste Management, Organic Waste, Socialization, Losida.

## 1. INTRODUCTION

Indonesia is one of the fourth most populous countries in the world, which results in an increase in waste production every year. The increase in waste production rate is proportional to the population rate. The greater the population rate in a country, the higher the waste production rate.

Waste is defined by WHO (World Health Organization), as goods derived from human activities that are no longer used, either not used, disliked or discarded. Meanwhile, Law Number 18 of 2008 concerning Waste Management states that waste is the residue of daily human activities and or natural processes in solid form. Waste that is not managed properly can cause a slum environment, and can interfere with comfort and health.

The ever-increasing volume of waste, the limited provision of landfills and the lack of optimized waste management are not new problems in Indonesia. Household waste production in the form of organic and inorganic waste increases every day, this condition is increasingly worrying if it is not addressed. This is due to the changing consumption patterns of society, starting from activity patterns, social and economic life patterns, and technological developments. The phenomenon of waste volume is an indication of the habits of people who tend to ignore waste, but in managing waste has not had an impact on the increasing volume of waste.

Active community participation in household waste management determines the success of its implementation. Communities need to be empowered with all noninstructive efforts to increase the knowledge and ability of the community to be able to identify problems, plan and carry out problem solving by utilizing the potential of the local community without relying on outside assistance, especially the problem of waste. One of the organic waste generated is household waste which can also be one of the causes of environmental pollution.

Padukuhan II Kersan is one of the padukuhans that is experiencing problems with household organic waste management, because every day households must produce waste, both organic and inorganic waste. Organic waste management in Padukuhan II Kersan is still not optimal. Waste management activities are still in the process of collecting inorganic waste and then selling it to collectors then the results are used as waste shodaqoh in the form of basic necessities which will be distributed to underprivileged local residents with the aim of alleviating the residents' economy.

To help this hamlet overcome the problem of household organic waste management, students of the Real Work Lecture (KKN) of Sunan Kalijaga Yogyakarta State Islamic University have an initiative to overcome the waste problem, one of which is by applying the LOSIDA method. LOSIDA is an innovation in the utilization of organic waste, especially kitchen waste. In this article, we will discuss efforts to handle household organic waste which aims to provide knowledge to residents on how to process kitchen waste generated every day into something useful and optimize the accumulation of waste as is happening now. It is hoped that this initiative can be a good first step to overcome the problem of household organic waste for the surrounding environment.

## **2. METHOD**

The method used was to conduct socialization and workshops on handling household organic waste. Socialization was held as the main method to convey information to the community. This socialization and workshop was held on August 15, 2024 at Angkringan Pesantren Masyarakat Jogja (PMJ) Kang Sagi RT 01 by involving resource persons who are experts in the field of waste management and was attended by PKK cadre women from each RT representing 5 people with a total of 40 participants to share knowledge and practice making LOSIDA. During the socialization and workshop, they discussed effective ways to manage household organic waste, especially the utilization of organic waste using the LOSIDA method. This activity increases the knowledge of residents about the importance of preserving the environment and the positive impact of their actions in managing organic waste, besides that it will also provide solutions to them in terms of organic waste management in their neighborhood.

## **3. RESULTS AND DISCUSSION**

As witnessed in the landscape of Padukuhan II Kersan, there are various kinds of development and population growth that also affect the level of waste quantity. Padukuhan II Kersan is one of the padukuhans that is an integral part of Tirtonirmolo Village, Kasihan, Bantul, Special Region of Yogyakarta. This padukuhan based on the micro structure of the Neighborhood Association (RT) consists of eight RTs with fragmentation; RT 01-03 becomes the Bekelan hamlet area, while RT 04-08 becomes the Kersan hamlet area. Administratively, Padukuhan II Kersan is inhabited by approximately 2,096 people spread across eight RTs. It is an interesting fact that every hamlet in Bantul, including

Padukuhan II Kersan, does not have a Neighborhood Association (RW). This fact implies that the Padukuhan structural system directly touches the RT macro-structure layer located in each hamlet both in formulating the padukuhan agenda which is sustainable and policy deliberation.

In line with Bantul Regional Regulation No. 125 of 2021 concerning Household Waste Management and Waste Similar to Household Waste, every individual or group is obliged to carry out waste management and advocate the use of waste handling and reduction methods; reduce, reuse, recycle (3R). Based on this, during the implementation of the Real Work Lecture (KKN) Group 7 in Padukuhan II Kersan, Tirtonirmolo, Kasihan, Bantul, students launched a superior work program to utilize kitchen waste with the LOSIDA method through activities in the form of Socialization and Workshops on making LOSIDA.

Waste management at the household level is the habit of sorting waste independently. Handling waste from its source is the process of handling waste effectively, starting from the containerization, collection, transportation and management of environmentally sound organizations. The goal is to facilitate trade and reintegration so that waste becomes a sustainable part of the environment. Residues from households are divided into three categories: organic, inorganic, and hazardous waste. The organic and inorganic categories of waste are the easiest to identify and sort. While the hazardous waste category includes waste from hazardous and toxic chemical materials such as batteries, medicines, used paint, leftover oil, and others.

Based on the results of student observations and surveys during activities at the location of the Real Work Lecture (KKN) related to waste management, waste classification such as plastic waste, bottles, and recycled waste are accommodated by a Padukuhan program in the form of Waste Shodaqoh which is held once a month and a Waste Bank as a method for accumulating daily waste that can be sold to local collectors. Meanwhile, efforts to manage household organic waste are still not evenly accommodated.

The illustration of the purpose of the Waste Bank program is for each resident and by the residents. Recyclable waste such as the above from each household is collected once a month in a place in each RT and then weighed and sold to collectors. The output of these activities include waste shodaqoh and cash for the RT. As for some efforts, starting from socialization and waste processing workshops according to kitchen waste, it has been carried out by the Padukuhan in collaboration with the Tirtonirmolo Village Environmental Service (DLH). The

activity took place under the title Socialization of Waste Management of Padukuhan II Kersan and was attended by most of the PKK cadres mothers and RT heads.

In accordance with the initial design of the excellent work program based on optimizing collective network empowerment of collective networks, students of the Real Work Lecture (KKN) together with Padukuhan II Kersan have pursued similar activities for handling "organic" waste in the form of socialization and workshops on making LOSIDA (kitchen waste bins) which aim to provide alternative organic waste composter media in urban areas. The target of the socialization was directed to all women PKK cadres from each RT with 5 representatives. The total number of participants in the socialization and workshops on making LOSIDA was around 40 individuals. An initial motive for the implementation of this work program is that each participant is expected to start back from their on personal kitchen a good habit of sorting waste independently and contribute to maintaining environmental cleanliness and reducing the quantity of household organic waste.





This activity was held at the Angkringan cakruk of Pesantren Masyarakat Jogja (PMJ) Kang Sagi RT 01 with a resource person directly from the subject who is currently working at the Tirtonirmolo Village Environmental Service (DLH). Therefore, the activity took place conducive and can be accounted for according to the applicable procedures in making LOSIDA. At the time of implementation, the activity took place conducive starting from the delivery of material presented directly by the resource person for 30 minutes and continued with question and answer for approximately 25 minutes. The interactive dialogue between the women and the resource person bridged the same aspirations and concerns related to how to answer how to process kitchen waste with a method that is easily available and also has a considerable functional effect on the environment. The socialization and workshop of making LOSIDA took place after the question and answer procession with all the preparation of materials in advance that had been prepared by the committee organizing the socialization and workshop. Through this socialization, each participant not only obtained material from the resource person about the processing of kitchen waste based on LOSIDA. Furthermore, with the provision of existing materials and enough for all participants to be able to practice directly during the event, and also expected to be applied in their respective places.



Students of the Real Work Lecture (KKN) of Sunan Kalijaga State Islamic University facilitated the making of LOSIDA in the form of soil, husks, mineral le gallons formed into pots, and PVC pipes with a diameter of about 4 inches with a length of 1 to 1.2 meters, the pipe was made a hole at the bottom of the pipe and ensured that the bottom of the hallowed pipe was covered with soil so that the waste could get out of the soil and reach the plants, the pipe was used as a container for disposing of kitchen waste, which later the organic waste was inserted through the top of the PVC pipe then watered with a mixture of water used for washing rice and covered with a PVC lid which served as a starter to

accelerate decay. After 2-3 months, the contents of LOSIDA can be utilized by taking it and turning it into compost to loosen the soil and plants.



LOSIDA as an alternative composter in its application can be said to be quite easy; filling the lodong (pipe) with household organic kitchen waste (vegetable waste, stale rice, fruit peels, etc.) until the lodong is full of organic kitchen waste and then allowed to decompose for a period of approximately two-three months. The output of the decomposed waste is finally compost along with leachate (liquid) which can function as a liquid fertilizer that nourishes plants and soil. Varied media sizes that can be adjusted to the needs of each individual, media and materials that are easily available such as used gallons, pots, enough soil, husks if needed, and lodong make LOSIDA an alternative in overcoming the accumulation of kitchen waste. The more availability of LOSIDA, the more kitchen waste that can be decomposed. Moreover, if in one house there is more than one medium for processing kitchen waste, say like a maggot larvae box, then kitchen waste can slowly be overcome starting from each room of the house.

The impact of the socialization and workshop activities was an increase in awareness and knowledge of all participants about an effort to process kitchen waste individually by utilizing used materials around and easily available in the form of LOSIDA. A new trend when the perspective on waste is slowly changing; household waste that initially always ends up in the surrounding landfill, is now seen functionally and turns out to have various functions. Waste in the LOSIDA method becomes something useful for the environment and individuals.

The making of LOSIDA can not only reduce the accumulation of organic waste from homes or other places, this alternative method can also at least reduce the surge of organic waste that will be disposed of in the Final Disposal Site (TPA), so before the community dispose of waste with the existence of this LOSIDA, the activity of sorting waste will become part of the daily routine of the community. The benefits of LOSIDA for the environment include improved soil quality. Good soil usually in its crumb or granular form has room for air so that good air and water can enter smoothly. The level of Cation Exchange Capacity (CEC) is closely related to soil fertility. Therefore, a high CEC in soil indicates that the soil is high in nutrients. Instead of applying excessive use of organic fertilizers, it turns out that the amount of CEC contained in organic fertilizers still cannot outperform the amount of CEC contained in compost. As a compost producer that can help increase soil productivity, the harvested compost from LOSIDA also serves as a cement or adhesive for soil contours and balances the level of soil hardness.

#### **4. CONCLUSION**

Based on the Socialization of Waste Management and Workshop on making LOSIDA (Kitchen Leftover Lodong) which has been carried out at Angkringan PMJ RT 01, Bekelan Hamlet, Padukuhan II Kersan is a positive and sustainable activity. The enthusiasm of the participants and their commitment in independent waste management using the LOSIDA method is the first step to creating a healthy environment free from accumulation of waste that can cause disease at any time. Activities involving competent facilitators in environmental issues and all participants have presented a common will and collective vision to synergize in managing waste starting from their respective home rooms in accordance with environmental ethics. After participating in the Socialization and Workshop on LOSIDA making, the hope of course lies in the increasing awareness of participants regarding the importance of processing waste, sorting waste independently, implementing the use of LOSIDA, and finally reminding each other in order to protect the environment.

In this article, the excellent work program activities of Real Work Lecture (KKN) students, starting from the design of the activity mechanism to the implementation of the socialization and workshop for making LOSIDA, have gone through a process of negotiation and further discussion beforehand with all community leaders and local stakeholders. It was held at Angkringan PMJ RT 01, Bekelan Hamlet, Tirtonirmolo, Kasihan, Bantul, on August 15, 2024.

The precondition that is strengthens when determining this Excellent Work Program is a situation where the phenomenon of piling up garbage is witnessed during a survey around the KKN placement location. The Waste Management Socialization and LOSIDA making workshop is an efforts to increase participant understanding of the urgency of sustainable environmental insights such as waste management and making a companion method for processing organic waste like LOSIDA.

The recommendation of the Real Work Lecture (KKN) activity like this is an effort to increase holistic awareness regarding how the relationship between humans as subjects who come face-to-face with the product of economic activity in the form of waste and the place they live in, namely the environment. Of course, further hopes lead to efforts to practice and implement the acquisition of knowledge that is parallel to the insights of waste management through advanced and developing media. We expect criticism and suggestions from every reader, because after all this article is far from perfect both in terms of content and technical writing.

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