

A WETLAND-BASED VILLAGE WASTE BANK IN SEKUMPUL, MARTAPURA DISTRICT, BANJAR REGENCY

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Abstract

The waste bank was established because of public concern about the environment which is increasingly filled with both organic and inorganic waste. The increasing amount of waste will certainly cause many problems, so it requires processing such as making waste into useful materials. It is hoped that waste management with this waste bank will be able to help the government in handling waste and improving the community's economy. A waste bank is a place used to collect waste that has been sorted. The results from the collection of sorted waste will be deposited to places where crafts are made from waste or to waste collectors. The waste bank is managed like banking by volunteer officers. Depositors are residents who live around the bank location and receive a savings book like saving at a bank. The main aim of establishing a waste bank is to help handle waste processing in Indonesia. The next aim of the waste bank is to make people aware of a healthy, neat and clean environment. Waste banks were also established to convert waste into something more useful in society, for example for crafts and fertilizer which have economic value. Waste banks have several benefits for humans and the environment, such as making the environment cleaner, making people aware of the importance of cleanliness, and turning waste into economic goods. The benefit of a waste bank for the community is that it can increase people's income because when they exchange waste they will get a reward in the form of money collected in the account they have. People can withdraw money from their savings at any time when they have accumulated a lot of savings. The rewards given to savers are not only in the form of money, but some are also in the form of basic food items such as sugar, soap, oil and rice. Waste banks are also beneficial for students who are financially disadvantaged, several schools have implemented school fee payments using waste. With the above, it was initiated to carry out activities to establish a Waste Bank in Sekumpul Subdistrict, Banjar Regency by a Team of Lecturers and Students at the Islamic University of Kalimantan, Muhammad Arsyad Al Banjari and colleagues with a community empowerment program (PPM) scheme in wetlands.

Keywords: Waste Bank, Management, Sekumpul Subdistrict, Wetlands.

INTRODUCTION

Situation Analysis

Socially, the majority of people in Sekumpul Subdistrict do not care about waste management and even though there is waste management it is still individual and not yet organized in an integrated manner, so the intensity of togetherness in the community is still very low (Surya, 2020; Ramadhani et al., 2023). Then economically, currently there is no economic value to waste management, apart from the fact that people do not understand that waste management has economic value and most awareness of waste management is still low because people still think that waste is the remainder of an unwanted and unwanted process has economic value (Khuzaini & Sulastini, 2022; Shaddiq et al., 2021). How to manage waste through the Waste Bank so that it can be useful and have economic value (Surya & Sulastini, 2023). There are 2,200 housing complexes, 1,300 waste bank customers, 8 tosa per day, 3 liters of waste per day. Pick up cars 100,000 per day. Levy 15,000 per month, then waste bank cash of 50 million for the next 3 years (2020-2023). A new paradigm or concept and procedure for waste management is needed. Sekumpul Village, located in Martapura District, can be seen in Figure 1.



Figure 1. Map of Martapura District
Source: www.google.co.id/maps)



Figure 2. Map of Sekumpul Subdistrict (Source: GIS Analysis, 2023)
Sekumpul Village is located in Karang Intan District, Banjar Regency with a population of 1300 people consisting of 600 women and 700 men. The distance from Banjarmasin City is around 100 km.

Neighborhood Association (RT) as part of the Village Government area unit has a very dominant function in serving the interests of the community in that area. Especially regarding its relationship with government at higher levels. The Village Leadership Structure with all its hierarchy can be seen in the chart below.

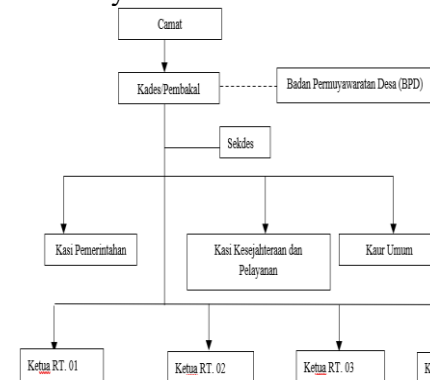


Figure 3. Organizational Structure of Sekumpul Subdistrict Government (Source: Potential Data for Sekumpul Subdistrict, 2023)

Identify Partner Problems

There are several problems that occur with community service partners, including:

1. Socially, the people in Sekumpul Subdistrict do not care about waste management and even though there is waste management, it is still individual and not yet organized in an integrated manner, so the intensity of togetherness in the community is still very low (Surya & Noor, 2020; Shaddiq et al., 2023).
2. Economically, currently there is no economic value to waste management, apart from the fact that people do not understand that waste management has economic value and most awareness of waste management is still low because people still think that waste is the remainder of an unwanted process and has no value. economic value (Ariefahnoor et al., 2020; Joko et al., 2022).
3. Village regulations regarding waste are not very clear and detailed regarding waste management.
4. It has 4 Neighborhood Units (RT) and 1,300 residents/people and disposes of 1 ton/1,000 kg of rubbish in 1 day.
5. A new paradigm or concept and procedure for waste management is needed in Sekumpul Village,

located in Karang Intan District, through a Waste Bank.

Priority of Partner Problems

Referring to the situation analysis and problem identification items, the main problems faced by partners were found:

1. There is no waste management that has economic value for the people of Sekumpul Subdistrict through Waste Bank Management.
2. There has been no assistance to establish a Waste Bank as input or suggestions or a new paradigm in managing waste that has economic value for the people of Sekumpul Subdistrict.
3. The community service/*pegabdian kepada masyarakat* (PkM) is the establishment of a waste bank in the Sekumpul sub-district, Banjar Regency.

PROBLEM SOLUTION

Alternative Solutions

Based on the problems faced by partners, the solution offered by the proposer through Community Service with a Community Empowerment Program scheme is:

1. Providing education on waste management that has economic value for the people of Sekumpul Subdistrict through Waste Bank Management.

2. Providing assistance in establishing a Waste Bank.
3. Providing assistance in the form of a partnership through the Sekumpul Waste Bank as a tutor in building the Sekumpul Subdistrict Waste Bank.

Figure 4. Illustration of Waste Bank Management
(Source: Surya, 2020 & Poster HKI, 2023)

MEKANISME SISTEM BANK SAMPAH



Figure 3. Illustration of Waste Bank Management

(Source: Surya, 2020 & Poster HKI, 2023)



Waste Bank Management

Changes in society's paradigm regarding waste need to be carried out in a sustainable manner. Educating residents' awareness and skills for waste management by applying the principles of *reduce, reuse and recycle* (3R) is important in solving the waste problem through managing waste from the source. A waste bank based on the participation of women residents is social capital in community-based waste management 5.0 (Surya & Sulastini, 2023; Satriadi et al., 2023). Waste bank integrated with 3R principles. Waste bank activities are a concept of collecting dry waste and sorting it and having management like banking but what is saved is not money but waste. Empowering citizens through outreach activities, education, training using emancipatory participation methods (interaction and communication), as well as dialogue with residents in the community. Apart from that, partnership support is needed by building networks and institutional cooperation mechanisms between residents who manage waste banks and related

stakeholders (Sulastini & Surya, 20...; Handayani, 2023).

The Waste Bank provides benefits to residents, especially direct benefits by reducing waste accumulation in the community, the environment becoming cleaner and more beautiful, as well as economic independence for residents. Apart from the economic benefits, where from waste savings you can get money to pay for electricity and buy basic necessities, there are also social and environmental benefits, with cleaner, greener, more comfortable and healthier community conditions. Integrated waste management can stimulate creativity and innovation in the community thereby improving the welfare of residents (Surya & Noor, 2020; Habibah et al., 2021).

Basically, a 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 waste. Residents who save (hand over rubbish) are also called customers and have savings books and can borrow money which will later be returned with rubbish worth the money borrowed (Aisyah, 2023). The waste that is saved will be weighed and valued at a certain amount of money, then it will be sold at factories that have collaborated with waste banks. Meanwhile, plastic packaging can be purchased by local PKK administrators

to be recycled *and* become multi-purpose craft items (Surya et al, 2023; Surti et al., 2022).

Definition of Waste

Waste is material that is discarded or discarded from sources resulting from human activities or natural processes that do not have economic value (Damanhuri, et al., 2004). According to Law of the Republic of Indonesia Number 18 of 2008 concerning waste management, waste is defined as the remains of daily human activities and/or natural processes in solid form.

1. Organic waste is waste that can decompose or decompose naturally, for example leftover vegetables, fruit and leaves. This waste constitutes the largest part of household waste (+ 70%).
 2. Inorganic waste is waste that cannot decompose or decompose naturally and takes a very long time to decompose, for example paper, plastic, wood, glass, cloth, metal, etc.
- Apart from the classification of organic and inorganic waste, according to Republic of Indonesia Law no. 18 of 2008, there is also a specific waste classification. Specific waste is waste which, due to its nature, concentration and/or volume, requires special management. The waste is managed based on Republic of Indonesia Law no. 18 of 2008 consists of:

1. Household waste, namely waste originating from daily activities in the household, does not include feces and specific waste.
2. Waste similar to household waste, namely waste originating from commercial areas, industrial areas, special areas, social facilities, public facilities, and/or other facilities.
3. Specific waste, which includes:
 - a . waste containing hazardous and toxic materials
 - b . waste containing hazardous and toxic waste materials
 - c . waste arising from disasters
 - d . building demolition debris
 - e . waste that cannot be processed technologically
 - f . waste that arises non-periodically.

Solution Priority

The priority solutions offered are:

1. Providing education on waste management that has economic value for the people of Sekumpul Subdistrict through Waste Bank Management
2. Providing assistance in establishing a Waste Bank.
3. Providing partnership assistance through the Sekumpul Waste Bank

as a tutor in building the Sekumpul Subdistrict Waste Bank.

Figure 5 Concept of Waste Management through Waste Banks

METHODOLOGY

Implementation Method

Based on the previous description, as well as the results of discussions with partners, the priorities for managing waste in Sekumpul Village are as follows:

Stage 1, namely:

- a. Prepare training materials together with the service team from the initial survey conducted to partners regarding how the Waste Bank is managed.
- b. Conduct discussions about partner needs in implementing the Establishment of a Waste Bank.

Stage 2, namely:

- a. Provide knowledge material and open insight to partners regarding Waste Bank Management.
- b. Implementation of the establishment of a Waste Bank.
- c. Providing assistance in the form of a Waste Bank savings book.



Assistance in waste management for economic benefits through the Waste Bank.

Target Audience

The main targets of this activity are residents of Sekumpul Subdistrict, Banjar Regency as follows:

No.	Training Participants	Number of Participants
1.	Residents of RT 01	2
2.	Residents of RT 02	2
3.	Residents of RT 03	2
4.	Residents of RT 04	2
5.	Youth organization	2
6.	Sekumpul Subdistrict Device	3
7.	UNISKA MAB Implementation Team	7
	Total	20

Partner Participation in Program Implementation

Prof. Dr. Sulastini, S.E., M.Si.

(Team Leader)

Ir. Adhi Surya, S.T., M.T.

(Member)

Dr. Ir. Syahrial Shaddiq, M.Eng., M.M.

(Member)

Rahmanuddin, S.E., M.M.

(Member)

M. Feriansyah, S.E., M.M.

(Member)

Ariefuddin, S.E., M.M.

(Member)

Satria Abadi, S.Kom., M.TI., Ph.D.

(Member)

Bahbibbi Rahmatullah, B.Eng.,

M.Eng.Sc., D.Phil. (Member)

The Sekumpul Village Partnership with the Village Organizational Structure is as follows:

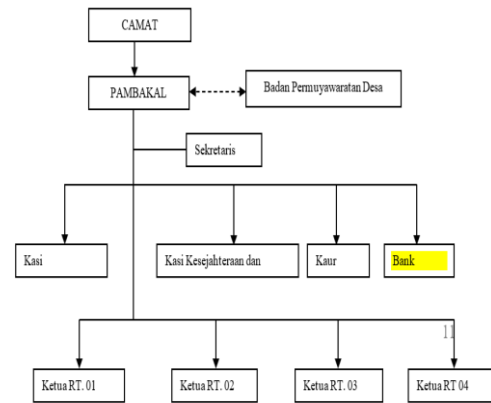


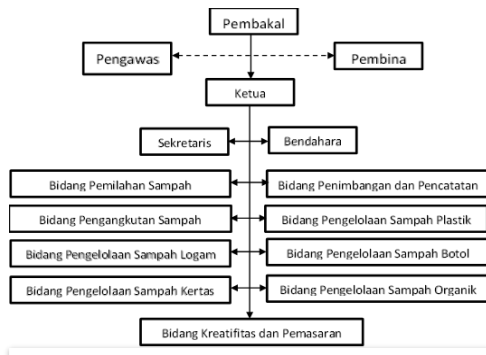
Figure 6. Organizational Structure of Sekumpul Subdistrict, Banjar Regency

RESULTS AND ACHIEVEMENTS

Results of Community Service Activities

1. The public received material about the management of establishing a Waste Bank.
2. Fostering the Karang Taruna youth community of Sekumpul Village to jointly establish a Waste Bank by bringing in resource persons from the Sekumpul Waste Bank.
3. Signed an MoU with the Sekumpul Waste Bank as the Trustee of the Waste Bank which will be established by the Sekumpul Waste Bank.
4. Publish PkM activity posters and register intellectual property right (IPR).
5. Publishing YouTube Videos

6. Create PKM articles that are published in UNISKA MAB proceedings.
7. Make a Plan or Draft Waste Bank Organizational Structure as follows:



Source: Surya, 2020

Achievement of Outcome Targets

1. The public received material about the management of establishing a Waste Bank.
2. Community service/pengabdian kepada masyarakat (PkM) activity poster published and intellectual property right (IPR) registered.
3. Published PkM articles published in UNIKA MAB proceedings.
4. A memorandum of understanding (MoU) has been issued between the Sekumpul Waste Bank and the Sekumpul Subdistrict to establish the Sekumpul Waste Bank in the near future.
5. Published YouTube Videos.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

1. It takes time to transfer *knowledge* about the management of establishing a Waste Bank to the community.
2. It is necessary to understand the village language in explaining or

- socializing the concept of establishing a Waste Bank for its benefits.
3. Until now, Sekumpul Subdistrict does not yet have a draft Village Regulations/*Peraturan Desa* (PERDES) regarding Waste Management and the Implementation of a Waste Bank.
4. With the MoU between the Sekumpul Waste Bank and the Sekumpul Subdistrict, in the near future there will be a transfer of knowledge regarding Waste Bank management and the establishment of the Sekumpul Waste Bank.

Recommendations and Follow Up

1. It takes time to transfer *knowledge* about the management of establishing a Waste Bank to the community by bringing in a companion from the Sekumpul Waste Bank.
2. It is necessary to understand the village language in explaining or socializing the concept of establishing a Waste Bank regarding its benefits by conducting a comparative study with the Sekumpul Waste Bank.
3. Currently, Sekumpul Subdistrict does not yet have a draft Village Regulations/*Peraturan Desa* (PERDES) regarding Waste Management and the Implementation of a Waste Bank. For this reason, a draft Waste Bank will be created from the Sekumpul Waste Bank as a comparison example.
4. Sekumpul waste bank status (not a PT, not a CV, not a foundation, not a cooperative).
5. Have no assets.

6. Not yet a banking professional.
7. Political and legal policies are needed to become a collective bank as a bank with a professional legal entity.
8. The Sekumpul waste bank needs to be privatized.

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