

## **CHAPTER III**

### **ANALYSIS AND DISCUSSION**

This chapter will present the results of the research at the Environmental Office of Magelang Regency and 2 of the best Waste Bank Communities in Magelang Regency related to the evaluation of the Waste Bank program in Magelang Regency in 2017-2018.

This research was obtained based on primary and secondary data, the results carried out through interviews with several parties related to the implementation of the program and direct observation in the field so that the author knew the actual implementation of the program so far and data obtained from documents. This discussion will be focused on variables and indicators to see the success of the Waste Bank Program, according to William N. Dunn's evaluation criteria, namely effectiveness, efficiency, adequacy, alignment, responsiveness, and accuracy.

#### **3.1 Waste Management through the Waste Bank Program in Magelang Regency**

Waste management is still being a problem in Magelang Regency even though the waste bank program has been implemented since 2015 and not accommodating waste in the Final Waste Disposal Site (TPA) is the factor of waste management is still lack in Magelang Regency. This is because Magelang Regency does not have a landfill that can accommodate waste from all districts. Waste management also still uses the old paradigm namely collect-transport-

throw, due to the lack of awareness and knowledge of the community in waste management and the lack of optimal implementation of the Waste Bank program.

Based on the background, Magelang Regency again optimizes the Waste Bank program with the aim of changing people's behavior to be more concerned about cleanliness, changing the paradigm of waste as waste material into something that has economic value, and developing waste management with the 3R concept, namely, Reuse-Reduce-Recycle. It is hoped that it will bring benefits to the community, namely, increasing knowledge and skills in waste management, increasing the benefits of yard land for Family Medicinal Plants (TOGA) and Vegetables and Fruits (SABU), and increasing community welfare through skills in waste recycling and organic fertilizer management.

### **3.1.1 Basic Concept of Waste Bank Program in Magelang Regency**

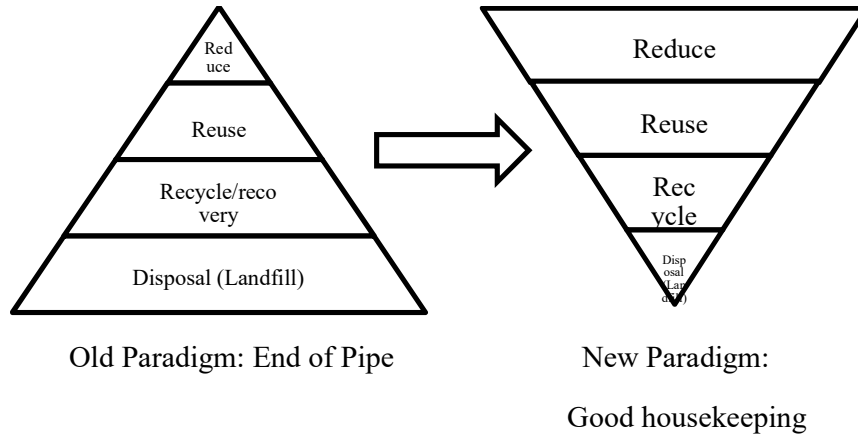
Waste management before the waste bank program was applied still used the old paradigm called End of Pipe. The End of Pipe paradigm is to dispose of waste directly into a landfill (TPA) using the 3R principle as the good waste management. Waste management policies emphasize waste reducing at source, sorting and recycling. A very important initial foundation in changing this paradigm is to change the policy towards minimizing waste at its source not at its disposal (Environmental Office of Magelang Regency, 2018).

The new paradigm used by the Waste Bank Program is Good Housekeeping. The paradigm reduces waste through the 5M waste bank, namely:

1. Reducing waste
2. Sorting waste
3. Utilizing waste
4. Recycling waste
5. Saving waste

Waste will be reduced first by sorting or eliminating namely waste which will be reused as a creation or compost and waste that will be sold to collectors. Therefore, people can save using their household waste. This waste do not directly dispose to the landfill. Those waste will be reduced by the waste bank by sorting them which will later the waste be processed into organic creations or fertilizers, and the remaining waste that cannot be recycled will be taken to the landfill (Environmental Office of Magelang Regency, 2018). The basic concept of a waste bank through 5M can be seen in diagram 3.1 below:

**Diagram 3.1 The Basic concept of Waste bank**

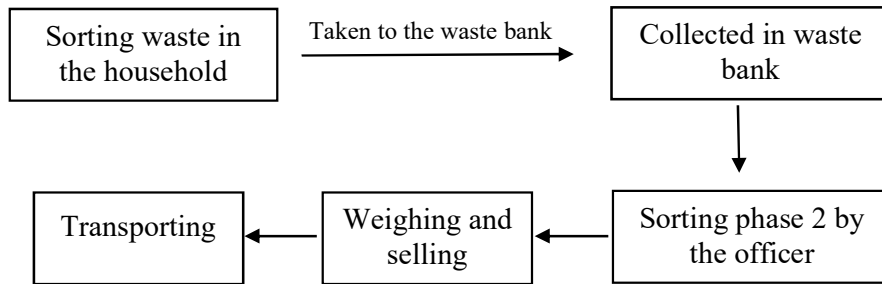


(Source: Environmental Office of Magelang Regency, 2018)

**3.1.2 Waste Bank Mechanism in Magelang Regency**

The implementation mechanism of the waste bank will be explained in the form of chart 3.1 below:

**Chart 3.1 Waste Bank Mechanism in Magelang Regency**



(Source: Environmental Office of Magelang Regency, 2018)

**3.2 Evaluation of Waste Bank Program in Magelang Regency**

Evaluation is an activity to assess the implementation of a program that has been implemented, regarding the success and constraints of a program. The purpose of the evaluation is to control the implementation of the program in the

future so that it becomes better and the information about the achievement level of the goals and objectives in implementation the Waste Bank Program could be obtained. Based on the data of Waste Bank in Magelang Regency in 2018 there are around 516 waste banks registered with the Environmental Office of Magelang Regency. Some of them received support in the form of assistance from the Environmental Office and PT. Unilever through their NGO (PERSADA). Assistance in the form of facilities is a kind of grant given to waste banks in several sub-districts in Magelang Regency. In the implementation of the Waste Bank program in the field there are factors that influence the success of program evaluations including effectiveness, efficiency, adequacy, equity, and accuracy. It can be further explained that the factors that influence the success of the Waste Bank Program Evaluation in Magelang Regency in 2017-2018 are as follows:

### **3.2.1 Effectiveness**

Effectiveness as organizational achievement levels were in the short and long term. When fulfilling satisfaction, achieving a vision, fulfilling aspirations, making a profit, and providing a positive impact on the surrounding community, the program is effective.

The purpose of the waste bank program according to the Environmental Office is to reduce the volume of waste in Magelang Regency, as well as empower the community by running the program. The reduced volume of waste in Magelang Regency due to the existence of this waste bank program is felt by the waste bank community. The statement is

suitable with what was said by Mr. Sugiyanto, as Head of the Sekar Gendis Waste Bank who stated that:

*“Of course, so for example here there are many kind of products that made by waste, but with the existence of this waste bank, the community has sorted out the waste according to its type. The people around collect waste, so they no longer dumped waste carelessly or burned the waste. Although there are some people who still do not want to collect themselves, we worked with the dustman around here, and then we were sorting out the waste.” (Interview with the Head of Sekar Gendis Waste Bank on November 11<sup>th</sup>, 2018, at 4.10 PM)*

This is also supported by statement made by Mrs. Sulastri, as Treasurer of the Lestari Waste Bank who stated that:

*“Before there was a waste bank, residents sold their house waste to the dustman and not all of the waste was received by the dustman. So, the rest are often thrown into rivers or burned. Then, after this waste bank has been implemented, residents are more concerned about the surrounding environment and the waste is no longer disposed in any place. There used to be a landfill, but then it just piled up in that place and became smelly. Then the people here work voluntarily to build a house for waste banks, waste that was once piled up and sorted again. So, now the waste has been managed in the waste bank.” (Interview with Treasurer of Lestari Waste Bank on November 11<sup>th</sup>, 2018, at 12.37 PM)*

The implementation of the waste bank program in the two places was carried out in accordance with the needs of residents and assistance which then prosper the surrounding community. Data on the volume of waste collected in both waste banks, namely Sekar Gendis Waste Bank and Lestari Waste Bank can be seen in table 3.1:

**Tabel 3.1 Comparison of Waste Volume in Two Banks in 2017-2018**

Waste Bank	Waste Volume (per month)	
	2017	2018
Sekar Gendis	285.6 kg	230 kg
Lestari	321.5 kg	191.5 kg

(Processed by Researcher)

From the comparison table above, there is a reduction in the volume of waste in the two waste bank areas, this supports the statement of the two previous waste banks stating that the waste bank helps reduce the problem of waste volume in Muntilan Village and Cecelan Village.

The reduced volume of waste is also supported by a statement from the Head of Air Pollution, Solid Waste and Toxic Hazardous Material Control Section, M. Irham Noor Syarif, SP, MM who stated that:

*"In our calculation, the volume of waste in Magelang Regency is reduced by 2% per month from a total around 17,000 tons per month. Indeed, it looks like it has increased from the previous year, but that's because the population has also increased. If it is calculated again, the volume is actually reduced and that is due to the implementation of the waste bank program in each village in Magelang Regency." (Interview with Head of Head of Air Pollution, Solid Waste and Toxic Hazardous Material Control Section on October 9<sup>th</sup>, 2018, at 7.30 AM)*

**Table 3.2 Comparison of Waste Volume per day in 2017-2018**

Population		Waste Volume (ton)	
2017	2018	2017	2018
1.257.496	1.268.396	560,23	575,40

(Source: National Waste Management Information System (SIPSN), 2018, processed)

The statements and processed data show that there is an increase in the population from 2017 to 2018. The increase in population is directly proportional to the increase in volume of waste per day. If in the period of the volume of waste decreased by as much as 2%, then the volume of waste reduced by 303.4 kg/day. With the existence of this waste bank, even though it is only 2%, it can reduce the rate of waste growth in Magelang Regency.

The reduction in the amount of waste listed above is also felt by the people in the area. In Dusun Cecelan where the Lestari Waste Bank is located, the community feels satisfactory results from the program. The following is a statement from one of the residents in Dusun Cecelan:

*"It's very clean now. Before this program implemented, the waste was piled up in one place (which is now a waste bank). If we pass in front of that place, it will smell bad. Especially if after the rain, the waste goes everywhere. Now it's neat, the trash bin is also look good even though it is from used materials." (Interview with one of the residents Lestari Waste Bank on December 13th, 2018, at 1.15 PM)*

This supports two previous statements about the effectiveness of the waste bank program in reducing the volume of waste in Sekar Gendis Waste Bank and Lestari Waste Bank. It can be concluded from the calculations made by Environmental Office, that this program is effective in overcoming the problem of waste in Magelang Regency.



### 3.2.2 Efficiency

Efficiency is a measure of the success of an activity that is assessed based on the amount of budget needed to achieve the desired results. In this case, fewer resources used to achieve the expected results, the process can be said to be more efficient. The source of the waste bank program budget comes from the Government of Magelang Regency grant and the sale of 15% waste bank products is used for the implementation of the waste bank (Ministry of Environment Regulation Number 13 year 2012). This is supported by a statement from Head of Head of Air Pollution, Solid Waste and Toxic Hazardous Material Control Section who stated that:

*"After receiving Adipura Award in 2017, we are given more budget to give grants to waste banks. There are 30 waste banks that receive grants namely waste bank management facilities in the form of scales, shelves to put waste, storefronts to store creations made from waste, and administrative books. In addition to getting a grant from the Magelang Regency Government, we collaborated with PERSADA as an NGO from PT. Unilever which provides grant assistance. Even in one of the places the land was represented for the establishment of the waste bank." (Interview with Head of Head of Air Pollution, Solid Waste and Toxic Hazardous Material Control Section on October 9<sup>th</sup>, at 7.45 AM)*

This statement is in accordance with was felt by the two waste banks that were interviewed. Each received assistance or gifts from several agencies other than the Magelang Regency Government, not only in the form of facilities but also funds for the implementation of the waste bank program. The Head of Sekar Gendis Waste Bank stated that:

*"We received assistance from Mandiri Syariah Bank to make this gate and the stalls that are in front of the waste*

*bank, and also provide assistance in the form of loans. From the Environmental Office also helps in the form of materials such as the facilities we need. There is also from Unilever to provide passbooks for local residents. Last year we got a Silver certificate from Unilever Yogyakarta, so we can stimulate funds according to the certificate.” (Interview with Head of Sekar Gendis Waste Bank on November 11<sup>th</sup>, 2018, at 4.25 PM)*

Similar to the Lestari Waste Bank which is located quite far from the Administrative Region, the Treasurer of the Lestari Waste Bank who stated that:

*"From Unilever, it was once obtained, because last year we joined Monitoring and Evaluation (MONEV) and got ranked 22 out of 72 waste banks in Magelang Regency. From Unilever we received stimulant assistance of 750,000 rupiahs which we then bought for waste bank facilities even though out of budget, but Alhamdulillah, there was an addition from one of the Councils as a sign of gratitude to the local people for having cared for the environment around 500,000 rupiahs, but yeah, we have only relied on the results of the collectors. Because we rarely get direct financial assistance." (Interview with Treasurer of Lestari Waste Bank on November 11<sup>th</sup>, 2018 at 1.01 PM)*

The income in the two waste banks from the sale of waste to collectors is also as a source of funding for the implementation of waste bank. Income in Sekar Gendis Waste Bank is Rp. 600,000 per month and Lestari Waste Bank of Rp. 560,800, according to the profit-sharing system determined by the Minister for Environment of Republic of Indonesia, which is 15% of the revenue used for bank operations. Then the amount of funding sources obtained by Sekar Gendis Waste Bank is Rp. 90,000 per month and Lestari Waste Bank is Rp. 84,120 per month.

Beside the revenue from the sale of waste that carried out by waste bank, residents also helped increase the income for the needs of waste bank. In both of these waste bank, the citizens raised funds through Family Welfare Development (PKK) contributions per month. The following is a statement from one of the residents who was a member of the PKK in Dusun Cecelan:

*"Every month there are always contributions for the needs of the Dusun, so the needs of the waste bank are also included in the contribution. Sometimes it's a change, this month for a waste bank then the next month for others. Usually each household is asked for 15,000 rupiahs. Not bad for additional waste bank needs." (Interview with one of the society who is part of PKK in Dusun Cecelan on December 13th, 2018, at 1.25 PM)*

In the efficiency indicator, it is explained that the assistance obtained is in the form of grants from government and institutions outside the government in the form of facilities such as shelves for storing waste, storefronts to put creations, scales, savings books, materials for waste bank buildings. In addition, self-help funds obtained from waste sales to collectors, creation contests, performance achievement levels that can be seen from the level of achievement where the level determines the stimulant funding assistance to be received. Based on the efficiency indicators of the waste bank program in Magelang Regency, it can be said that the implementation has been efficient. This can be seen from the limited sources of funds obtained from the government, but in its implementation the waste bank is able to develop.

### 3.2.3 Adequacy

Adequacy is a level of satisfaction of a need and the adequacy criteria emphasize the strong relationship between alternative policies and the results to be achieved. The criteria for sufficiency in the waste bank program are not only how to achieve targets with certain costs, but also how the strategies and mechanisms implemented are able to implement the program well and adequate facilities such as, involvement or cooperation with parties related to the implementation of the program.

In order to achieve a clean environment from scattered waste and to achieve success in waste bank activities that involve the community as managers of activities and place the community as objects starting from the identification of locations, needs, planning, and implementation. The adequacy criteria for the implementation of the Waste Bank program in Magelang Regency can be seen in the table 3.3 below:

**Table 3.3 Adequacy Criteria for Waste Bank Program**

No.	Indicator	Waste Bank	Done	Enough	Not Yet
1.	Facility	Sekar Gendis		√	
		Lestari			√
2.	Socialization and Training	Sekar Gendis	√		
		Lestari		√	
3.	Cooperation	Sekar Gendis	√		
		Lestari			√

(Source: Processed by Researchers)

The data above is based on the results of interviews conducted in two waste banks. There is a significant difference between Sekar Gendis

Waste Bank and Lestari Waste Bank. The following is a statement from Head of Sekar Gendis Waste Bank:

*"Actually, it is still not enough yet for facilities yet, because we still need a large place for composters. Because we are the main waste bank and the coverage of the area is quite large, so it's better if the place is divided, for collecting plastic waste here and composter elsewhere. The socialization we got was enough because almost every week we held socialization with residents in the front field for socialization and training. We also collaborate with several public institutions and private institutions and we get quite a lot of assistance." (Interview with Head of Sekar Gendis Waste Bank on November 11th, 2018, at 4.45 PM)*

In contrast to Sekar Gendis Waste Bank, a statement from the Lestari Waste Bank further shows the inadequacy of each of the indicators needed from the waste bank. The following is a statement from Treasurer of Lestari Waste Bank:

*"The facilities provided by the government did exist when at the beginning of making a waste bank in this village, but after that we were looking for funds to buy facilities that were really needed by the waste bank by ourselves. Socialization is enough for us, even though we still need more knowledge about waste bank so that socialization and training can be better conveyed to the community. For the collaboration that we get is still minimal, only limited to my acquaintance or gentlemens here, who happen to have positions in certain institutions or parties, so there are only a minimum of assistance or rewards." (Interview with Treasurer of Sustainable Waste Bank on November 11th, 2018, at 1.14 PM)*

The facility can be said to have fulfilled the adequacy criteria when it is accordance with Article 4 of the Regulation of the Minister of Environment of the Republic Indonesia Number 13 year 2012, which the requirements are building area, floor, ventilation, mechanical (AC, fan),

roof, ceiling, doors, service rooms, scales, lighting and waste bank environment. The facilities at Sekar Gendis Waste Bank are quite complete, such as buildings, shelves, storefronts, scales, offices, tables, chairs, and places of transactions. Sekar Gendis Waste Bank as the main waste bank has not yet integrated its activities and still needs a lot of improvement. Whereas the Lestari Waste Bank facilities cannot yet be said to be complete namely the condition of buildings that have not been proper, such as the absence of offices, waste reception tables, chairs, and tools for compost makers. Despite such conditions, Lestari Waste Bank is still active in carrying out waste bank activities.

Socialization and training can be said to have fulfilled the adequacy criteria if it conducted to provide introduction and basic knowledge about waste bank, to provide a detailed explanation of the standardization of waste bank system, the working mechanism and the advantaged of the waste bank system. The socialization and training provided to the community has still originated from internal waste bank managers. In Sekar Gendis there was often held socialization and training for the community. Head of Sekar Gendis Waste Bank took the initiative to carry out this activity so that local residents were educated and there was interest in continuing the management so that the program can run for a long time. Sometimes socialization and training are provided by the Environmental Office or Persada. This was also stated by residents who

participated in the socialization and training conducted by Sekar Gendis

Waste Bank:

*"Every week we will get training that given by waste bank. Yesterday we just got training to make handmade creations from plastic which were then made into placemats, bags. There is usually a monthly socialization, but it depends on if there is new news about the waste bank, it will immediately be delivered by Mr. Sugi. He is very diligent in inviting people to take part in waste bank activities." (Interview with on of the residents who is joined in the socialization and training in Sekar Gendis Waste Bank on December 13th, 2018, at 9.30 AM)*

Compared to the Lestari Waste Bank, even though socialization and training are conducted routinely, the manager still lacks of knowledge about the waste bank. This is because socialization and training from both the Environmental Office and Persada are still rarely done at Lestari Waste Bank. This was supported by a statement from one of the residents in Dusun Cecelan:

*"There is socialization and training, if the socialization is rare. Most of the socialization is for elementary school as well as training. For the women, they go to training in composting, handmade creation. It is almost rare for the socialization." (Interview with one of the society in Dusun Cecelan on December 13th, 2018, at 1.34 PM)*

Cooperation it can be said that have been fullfiled the criteria of adequacy if the cooperation is done sustainable. Cooperation in running a waste bank program is needed so that the program can run well. The cooperation carried out by Sekar Gendis Waste Bank has been good in the implementation of Sekar Gendis Waste Bank in collaboration with several district, provincial and private agencies. The role of Sekar Gendis Waste

Bank as a main waste bank is also a factor in the amount of cooperation that has been carried out, including cooperation with the Communication and Information Office, Agriculture, Food Crops, Plantation and Forestry Office, Mandiri Syari'ah Bank. These collaborations are in the form of facility assistance for waste bank program implementation. Different from Lestari Waste Bank, this waste bank is included as a unit of waste bank located outside the Administrative Region. The collaboration is still less, so far there has only been cooperation with Persada and the Environmental Office.

Observing from the 3 criteria above, the adequacy indicator in this waste bank program is good enough for waste banks near the administrative area, meanwhile for waste banks outside the administrative area are still difficult. There are 2 factors that influence this, such as the distance and the ability of facilitator.

#### **3.2.4 Alignment**

The alignment indicator is related to the distribution of policies between waste bank groups in Magelang Regency. Alignment criteria is closely related to fairness to the surrounding problems that are sufficient to distribute the program to the community.

The indicator of alignment in purpose is for villages to be able to participate in the implementation of waste banks and be able to benefit the community and the environment. The impact for the community is to get



savings through depositing waste in the waste bank and the impact on the environment is reducing waste by burriying or scattering waste around.

In Magelang Regency there are 21 sub-districts where the number of waste banks registered in 2018 is around 516 waste banks (Environmental Office of Magelang Regency, 2018), of the total waste banks and only 30 waste banks receive grants from the Regency Government, apart from several new waste banks starting in 2017. This is also because the sub-district has not started to distribute aid in any form. As stated by the Head of Head of Air Pollution, Solid Waste and Toxic Hazrdous Material Control Section that:

*"From all the waste banks in Magelang Regency, there are some that are supported by the Village Fund. If it is supported by the Village Fund, the waste bank must be advanced but those that are not supported by the Village Fund will certainly be difficult in implementing it. The socialization carried out from us is also not comprehensive, because there are now many waste banks. At the most, each village facilitator conducts socialization. So there are still people who don't care about waste. In addition, in 2017 the new Local Government issued a Regent's Instruction, which we distributed to one village in one waste bank, in the hope that the sub-district would spread to each village. But in the implementation there were those who stopped in the sub-district only and were not forwarded to villages, there were also those who proceeded to each village." (Interview with Head of Head of Air Pollution, Solid Waste and Toxic Hazrdous Material Control Section on October 9<sup>th</sup>, 2018, at 8.15 AM)*

**Table 3.4 Pollution Control Enhancement Program**

Program and Activity	Outcome and Output indicators	Annual Budget Target					
		2017		2018		2019	
		Target	Rp. (000)	Target	Rp. (000)	Target	Rp. (000)
B3 Waste Control Activities	Number of activities that are socialized	50 activities	80.000	50 activities	85.000	50 activities	90.000

(Source: Amendment of Strategic Plan of the Regional Units of Magelang Regency 2014-2019, processed)

The data above is the budget for the implementation of the waste bank program undertaken by Air Pollution Control and Hazardous Material Waste (B3) Department in Environmental Office of Magelang Regency. The target to be achieved is around 50 businesses/activities each year, but in its implementation there are only 30 waste banks that get the funds. The Waste Bank Program assistance turned out to bring social jealousy to the villages that did not receive assistance. This also resulted in the community's awareness which was still lacking. Although waste bank buildings in some places are still inadequate, villages that want this assistance can still work together through community self-help to improve facilities that are lacking. This was stated by the Waste Bank through direct interviews as follows:

*“About alignment, we don’t really know. We do various ways to repair this waste bank. We experience difficulties as an example, members of our waste bank also don't really understand what a waste bank is as much as possible we explain to them according to our abilities. Just like what*

*you look at the condition of our waste bank building, we have just tried to make it feasible to store waste and also creations. There is also a composter, we still make compost with the miniature using large used paint barrels. Behind there, we will build a bigger composter with funds that we get from implementing a waste bank and self-help community." (Interview with Treasurer of Lestari Waste Bank on November 11<sup>th</sup>, 2018, at 1.20 PM)*

Not only the issue of alignment of socialization and training, and facilities but also the even distribution of the number of waste banks in each sub-district is still not optimal yet. Although the distribution depends on the number of villages in the district. However, the number of waste banks in the village is not in accordance with the number of waste banks that get funding sources originating from self-help. This can be seen in table 3.3 below:

**Table 3.5 Alignment of Waste Bank Program in Magelang Regency 2018**

No.	Sub-district	Number of Waste Bank	Number of Waste Bank that Have a Source of Fund
1.	Bandongan	65	43
2.	Borobudur	8	3
3.	Candimulyo	5	2
4.	Dukun	14	7
5.	Grabag	14	4
6.	Kajoran	34	11
7.	Kaliangkrik	50	29
8.	Mertoyudan	45	19
9.	Muntilan	50	31
10.	Ngablak	11	2
11.	Ngluwar	6	5
12.	Pakis	22	2
13.	Salam	20	14
14.	Salaman	35	10
15.	Sawangan	21	17
16.	Secang	7	4

17.	Srumbung	22	5
18.	Tegalrejo	5	2
19.	Tempuran	13	10
20.	Windusari	15	8
21.	Mungkid	33	16

(Source: Environmental Office of Magelang Regency, 2018)

Based on the data above, the number of waste banks with a number of waste banks that have a source of funds is quite large. Of the 21 sub-districts in Magelang regency, there are 12 sub-districts which have quite large differences. More than 50% of the total number of waste banks that do not have self-help funding sources. This number is quite large for the waste bank squatting that is not optimal.

### **3.2.5 Responsiveness**

Indicator of responsiveness is to assess whether the results of the policy contain values that can satisfy policy objectives. Criteria for responsiveness are important because analysis can satisfy all other criteria. The indicator of responsiveness in the Waste Bank program is the community's response to the program and also the Government's response to the problems experienced by the Waste Bank. This can be seen in increase in the number of waste banks in Magelang Regency from the 2015-2018 period. The number of waste banks can be seen in table 3.4 below:

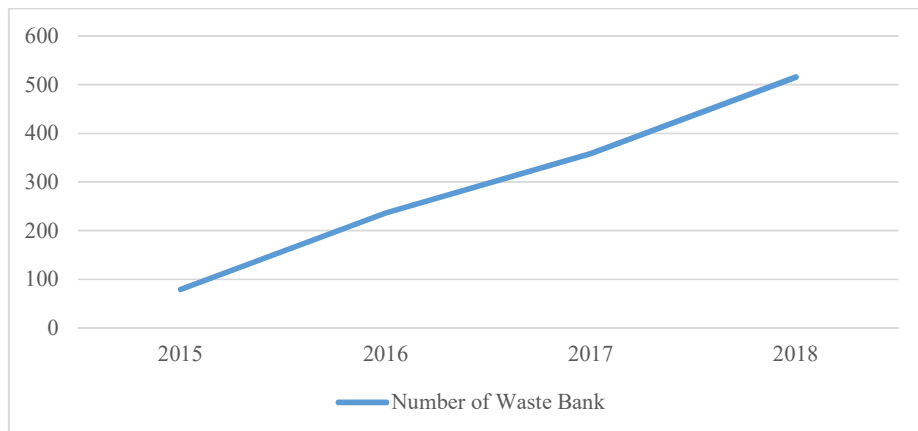
**Table 3.6 The Number of Waste Bank in  
Magelang Regency in 2015-2018**

<b>Year</b>	<b>The Number of Waste Bank</b>
2015	79
2016	157
2017	122
2018	158

(Source: Environmental Office of Magelang Regency, 2018, processed)

The table above shows the number of waste banks in each year, the number of waste banks has increased dramatically in 2016. This is because the public account with the news of Magelang Regency which received the category of "emergency waste" in 2015. It also brought Magelang District to the Adipura Award in 2017 and up to now waste banks have added 158 pieces which have produced a total of 516 waste banks in 2018. Increasing number of the waste banks can be seen in graph 3.1 below:

**Graph 3.1 Increasing The Number of Waste Banks  
in 2015- 2018**



(Source: Environmental Office of Magelang Regency, 2018, processed)

The graph above shows a continuous increase number of waste bank from 2015-2018 and this can explain the good response of the

community in implementing the waste bank program. The community response must also be proportional to the response of the Environmental Agency to the problems experienced by the waste bank in its implementation. This was supported by the statement of the two waste banks officers interviewed as follows:

*"The government's response is good, when we have difficulties in some ways such as facilities. The service also gives us enthusiasm with the awards given when there is a creation exhibition." (Interview with Treasurer of Lestari Waste Bank on November 11th, 2018, at 1.35 PM)*

This was also stated by the Head of Sekar Gendis Waste Bank:

*"The response is good and fast, especially since we are a main waste bank, which is arguably quite a lot of needs. Sometimes without us asking from the Office to offer assistance with facilities, they offer the assistance." (Interview with Head of Sekar Gendis Waste Bank on November 11th, 2018, at 5.00 PM)*

In addition to the waste bank's response to the government, the public's response to waste banks also affects the performance of waste banks. The following are the results obtained from the field through interviews can be seen in table 3.7 below:

**Table 3.7 Community Response to Waste Bank**

No.	Indicator	Sekar Gendis Waste Bank	Lestari Waste Bank
1.	Cleanliness	Cleanliness in the area around the waste bank has a good impact on the community, the environment becomes neat, comfortable and beautiful.	The community feels healthier because there is no waste piled up in one place that causes unpleasant odors.
2.	Profit	The economy is a little helped by the existence	Although the profit obtained is few but it

		of a waste bank, because it uses a savings system.	quite helpful for savings.
3.	Benefit	The community becomes more independent of the waste generated from the household, more creative in processing waste into creations that can increase income.	Adding knowledge about processing organic waste into compost for polybag plants and can produce creations in the form of plant pots from towels and baby diapers.

(Source: Processed by Reseacher)

From the results of the interview above, it can be concluded that the waste bank program can answer the community's desire for the program. The waste bank program is not just a program to reduce the amount of waste in the area but also can provide benefits to the community.

The responsive indicator of the waste bank program can satisfy the waste bank community and this program can bring Magelang District to the Adipura award in 2017. This shows a reduction in waste with an increase in the number of waste bank in Magelang Regency.

### **3.2.6 Accuracy**

Indicators of accuracy referring to the results achieved from the program which are useful or appropriate to the target group. The accuracy of the program refers to the objectives and the accuracy of targets. The aim of this program is to reduce the volume of waste in Magelang Regency although in its implementation the volume of waste in Magelang Regency has only decreased by 2% of the total volume of waste.

Based on observation in the field the waste bank program is very useful for the environment. It is because based on the target of the waste bank program is the community that always produces waste every day. The target of the waste bank program for each village in 21 sub-districts in Magelang Regency. Criteria for accuracy in the implementation of the Waste Bank Program can be seen in Table 3.8 below:

**Table 3.8 Accuracy Criteria in Waste Bank Program**

No.	Indicator	Lestari Waste Bank	Sekar Gendis Waste Bank
1.	Accuracy's program	The program has been implemented appropriately at the waste bank in Cecelan Village whose waste has not been properly accommodated before the program	It is on target in Muntilan Sub-district which the public awareness of environmental hygiene is increasing
2.	Program effectivity	Waste Bank program results are in accordance with the program objectives and can accommodate the waste that previously disrupted the daily lives of the surrounding population	The results can be felt by the surrounding community with a cleaner and more beautiful environment
3.	Impact of the program existence	The impact can be felt directly by the surrounding community in the absence of high waste stacks and the environment becomes more tidy	The community cares more about the environment and also cleanliness

(Source: Processed by researcher)



According to the results of the criteria above, the waste bank program can be declared successful and achieved the goal. The results of the evaluation based on the previous criteria also show that the waste bank program provides value and benefits to the community because with the existence of the program the problem of waste can be minimized. The following is the statement of the waste bank:

*"With this program we feel helped by the waste problems here. It's very right on target, because in addition to reducing waste in our village this program also increasing awareness of citizens to protects the environment." (Interview with Head of Lestari Waste Bank on November 11<sup>th</sup>, 2018, at 1.40 PM)*

This was also stated by Sekar Gendis Waste Bank that the environment around the waste bank became cleaner, tidier and more beautiful. Community awareness of environmental cleanliness is increasing. The following is the statement of Head of Sekar Gendis Waste Bank:

*"Of course it's accurate, people usually throw waste carelessly. Most often in the sewers around this, not to mention the trash cans are usually full of neglected waste until it scattered everywhere. Now residents are aware of environmental cleanliness. For example, when there is plastic waste spread on the streets, resident who sees it will throw the waste into the trash can." (Interview with Head of Sekar Gendis Waste Bank on November 11<sup>th</sup>, 2018, 5.30 PM)*

Based on the observations in the field the waste bank program is very useful for the community. It is seen from the program's goal to make the community more active and care for the environment which is directly

part of the community's habits. The target of the waste bank program is for all villages in 21 Sub-districts in Magelang Regency, and almost all villages in 21 Sub-districts are managed by the Environmental Office within these 3 years.

In the indicator of accuracy, the waste bank program is very useful for the community and the desired results are in accordance with the objectives of the program. In addition, the program is already accurate for the village environment in waste management.