

# CHAPTER I

## PRELIMINARY

### A. Background

Environmental issues recently have been getting talked about. The development that aims to build Indonesian is certainly not separated from the goal of human life that there is harmony and balance whether it is life among his neighbor and the natural environment. But, noble ideals as a dream of life that is not easily manifested considering the society are not fully aware of the importance of the environment. Environmental issues have been an international concern, even its popularity are often aligned with human rights issues and democracy (Dr. Roslina Amu, 2014). One of the environmental problems is garbage problem.

Garbage is a consequence of life that often poses problems. Garbage problems are generally faced by large cities that have a fairly dense population, such as the city of Yogyakarta. The City of Yogyakarta is one of the major cities in Indonesia; its population is quite dense, because the city of Yogyakarta is a city of students and tourist cities. Due to the density of population in the area, it will pose many problems, like at least the amount of garbage problems will increase along with the increase in population and various activities.

Increasing amount of garbage that is not balanced with environmentally friendly management will cause damage and pollution of the environment (Kustiah, 2005). Moreover, uncomprehensive garbage handling will trigger the occurrence of social problems, such as community anger, clashing between communities, blocking the facility of the final disposal (Hadi, 2005)

Currently, almost all waste management ends at the landfill, causing the load of the landfill to be very heavy. In addition to the need for ample land, also requires very expensive

environmental protection facilities. The increasing number of waste thrown into TPA is caused by the efforts to reduce the volume of garbage in earnest since from the beginning (Kustiah, 2005).

The city that has the slogan “Jogja Berhati Nyaman” must be maintained. The effort to tackle garbage is one of the efforts to implement 3R (Reuse, Reduce, Recycle) in the management of waste at the source level of the community with an economic incentive pattern. In Yogyakarta City regulation No. 10/ 2012 about waste management, to realize the city of Yogyakarta to be a clean city, people in household environment and in agency/office/school environment are obliged to do reduction of waste and waste handling.

The Environment agency of Yogyakarta is one of the public services that serve the community in the problem of waste or garbage to create hygiene. Cleanliness is a desirable thing in every area because it is a reflection of the beauty of a city. Therefore, the city government needs to create a clean city by tackling the garbage problem.

Garbage problems will never end because garbage is the concept of man-made. While, in the natural processes, there is no garbage, and there are only products are precipitate. Garbage is divided in the kinds of phase / material, namely solid, liquid, or gas phase. When it is released in the liquid and gas phases, especially in the gas phase, the trash is referred to as emissions related to pollution. When the garbage goes to the environment, such as (to water, to air and to ground), then the quality of the environment will decrease. The incident of garbage entry to this environment is known as an environmental pollution incident. The garbage problem is a challenge that will determine the environmental sustainability of a city (Purhayani, Strategi Dinas Lingkungan Hidup Dalam Menanggulangi Sampah , 2019).

In Yogyakarta city, garbage problems are still happening. Public awareness to dispose of garbage seems still low. Moreover, the temporary disposal still has lack of accommodating the

volume of garbage that every day increases. Border areas become prone to garbage buildup. Because of potential disposal for citizens from outside the city of Jogja, the point is that usually a disposal occurs in Wirobrajan, Gondokusuman, Tegalrejo, and at around Gembiraloka Zoo (Sunartono, 2018). The situation of the inhabitants of Yogyakarta city is that many new comers, like tourists have increased the impact of garbage volume especially during the day. It also happens in a place where integrated waste management is increasingly stacking like a mountain. Garbage in TPST was the highest in Piyungan on March 2014 and low on July 2014. Yogyakarta City is the most donated garbage in TPA Piyungan, then Kabupaten Sleman and Bantul.

The Law No. 23/1997 Article 16 about Environment says that the citizen is responsible as a manufacturer of garbage generation. It is hoped that the community as a generation source is at risk as a source of pollutants, to participate in waste management systems. The strategic effort undertaken by the Government of Yogyakarta city to overcome the garbage problem is to encourage community participation in waste management by reducing waste at the source (households).

Yogyakarta city government is required to overcome the garbage problem that almost every year is always there. Then, the government should really know the cause of waste problems that are being encountered. Yogyakarta city has 144 garbage temporary disposals which 70 TPS, including 11 garbage depots are managed by DLH Yogyakarta City. The TPS managed by small residents is such as 1 x 2 meters, while the depot has 20 square meters. This garbage problem is not enough with the addition of landfills. The Government should provide socialization of the community on how to handle with garbage from providing trash, sorting and selecting garbage (Sunartono, 2018).

Garbage problems in Yogyakarta city actually have been issuing for a long time. Budhi Masthuri, the Chairman of the ORI Representatives DIY, explains if actually, in 2014 there had been warnings about the capacity of the Facility Piyungan that was almost over capacity. This problem begins with the accumulation of garbage in Piyungan TPST. As a result, the queue of garbage transport cars became very long. In addition, the entrance to the TPST area is also muddy. Besides that, the tools in TPST piyungan are also still minimal.

Based on the Dataku application, the love of Garbage in Special Region Yogyakarta is presented as follows:

**Table 1 The Volume of Garbage Data**

Sub Elemen	Tahun					Satuan	Periode
	2016	2017	2018	2019	2020		
3	4	5	6	7	8	9	10
<b>Jumlah TPS</b>	<b>417,00</b>	<b>419,00</b>	<b>287,00</b>	<b>287,00</b>	-	<b>Unit</b>	-
<b>Dayatampung TPS</b>	<b>364,88</b>	<b>500,00</b>	<b>600,00</b>	<b>600,00</b>	-	<b>Ton</b>	-
<b>Jumlah Deposampah</b>	<b>64,00</b>	<b>64,00</b>	<b>73,00</b>	<b>73,00</b>	-	<b>Unit</b>	-
<b>Jumlah TPA</b>	<b>3,00</b>	<b>3,00</b>	<b>3,00</b>	<b>3,00</b>	-	<b>Unit</b>	-
<b>Jumlah TPST</b>	<b>61,00</b>	<b>61,00</b>	<b>61,00</b>	<b>61,00</b>	-	<b>Unit</b>	-
<b>Volume sampah yang ditangani</b>	<b>422,14</b>	<b>549,74</b>	<b>583,80</b>	<b>583,80</b>	-	<b>Ton/hari</b>	-
<b>Volume produksisampah</b>	<b>644,16</b>	<b>659,69</b>	<b>644,69</b>	<b>644,69</b>	-	<b>Ton/hari</b>	-

*Source: <http://bappeda.jogjaprov.go.id/>*

The volume of handled garbage increased in 2016 in which the average trash per day reached 422.14 tonnes and in 2017, it grew to 549.74 tons per day. The amount of garbage soared in 2018 was 583.80 tons per day and until 2019, it was still stable (583.80 tons per day). Tons of garbage are then processed before it is disposed to TPST Piyungan. Unfortunately, although the garbage production of the city of Yogyakarta decreases, the volume of garbage sent to the Piyungan rises every year because the less waste was processed.

The volume of waste in the TPST Piyungan could be reduced through managing trash first until really it can not be processed again before being discharged into the TPST Piyungan. As for

the anticipation of burning garbage that cannot be transported to TPST Piyungan, DLH Yogyakarta city has been trying to maximize the garbage depot in Yogyakarta.

## **B. Problem Formulation**

From the background of the study, the author formulates the problem as follows:

“How does the strategy of the environment agency in tackling problem of garbage in Yogyakarta city ?”

## **C. Research Purpose**

The purpose of the research is:

To find out the strategy of the environment agency in tackling problem of garbage in Yogyakarta city

## **D. Benefits of Research**

The benefits of this research are presented as follows:

### 1. Theoretical benefits

This research is expected to provide the understanding of waste management related to the garbage prevention by the Environment Agency. Moreover, it can add knowledge in the field of waste management by the government of Yogyakarta.

### 2. Practical Benefits

#### a. For the government

This research is expected that this research can provide input to the Yogyakarta city government about handling the waste problems.

b. For the society

This research provides knowledge and insights to the society about the importance of the environment in the balance of the existing ecosystem and support waste management.

## E. Literature Review

**Table 2 The Review of the Previous Research**

No	Title	Author	Methods	Result
1	<i>Kebijakan Pemerintah dalam Menanggulangi Sampah Plastik Di Kota Yogyakarta (2019)</i>	Dyah Ayu Nurmala Sari(Sari D. A., 2019)	This study is the descriptive study under a qualitative approach. The research was conducted in Yogyakarta City.	The results showed that the government's policy of tackling plastic waste in Yogyakarta city is quite good, but it was not maximally and the government planned to realize the target in the Ministry of Environment so that in 2020, Yogyakarta city is free from all garbage.
2	<i>Peran Pemerintah Daerah Dan Masyarakat Dalam Pengelolaan Sampah Kota Manado (Kajian Yuridis Peraturah</i>	Keviano Arcovith Shyntaro Koloay(Koloay, 2015)	The research method uses juridical normative.	1. The role of government in waste management in city of Manado is by making regulations that are specific governing waste management. It was seen with the issuance of regional Regulation No. 7/2006 in

	<p><i>Daerah Kota No. 7 Tahun 2006 Tentang Pengelolaan Persampahan Dan Retribusi Pelayanan Kebersihan) (2015)</i></p>			<p>waste management and cleaning service retribution. In addition, the other government effort is by conducting a waste treatment strategy in accordance with statutory regulations.</p> <p>2. The community's role in the protection and management of waste as expected in the Environment Management Act is not optimal due to the existence of community culture, community moral, public education, Community economics, and technology.</p>
3	<p><i>Pengetahuan, Sikap dan Pendidikan Dengan Perilaku pengelolaan Sampah Di Kelurahan Bener Kecamatan Tegalrejo Yogyakarta (2017)</i></p>	<p>Novita Sari, Surahma Asti Mulasari(Sari &amp; Mulasari, 2017)</p>	<p>This research is observational analytical research using the design of Cross sectional.The sampling</p>	<p>There is no link between knowledge, attitudes and education towards the behavior of waste management in Bener village, District Tegalrejo, Yogyakarta. Waste management is one of the concepts that can help in the problem of garbage, which requires</p>

			<p>technique used is the sampling techniques (Simple random sampling).</p>	<p>the active role of the community in seeking for the managing garbage.</p>
4	<p><i>Sistem Pengelolaan dan Upaya Penanggulangan Sampah Di Kelurahan Dufa-Dufa Kota Ternate (2016)</i></p>	<p>Jailan Sahil, Mimien Henie Irawati Al Muhdar, Fachtur Rohman, Istamar Syamsuri(Sahil , Muhdar, Rohman, &amp; Syamsuri, 2016)</p>	<p>This research is descriptive research using the analysis method Frequency distribution data with the analysis of the waste management system in the village Dufa-Dufa.</p>	<p>The management of waste in Ternate is not good enough. Some factors that affect the garbage management system in KelurahanDufa-Dufa are the culture of Community attitudes and behaviour, heap and garbage characteristics, and means of collecting, transporting, managing and disposal of waste.</p>
5	<p><i>Kebijakan Pemerintah dalam Pengelolaan</i></p>	<p>Surahma Asti Mulasari, Adi Heru Husodo,</p>	<p>This is a qualitative approach</p>	<p>The government through its policies encourages the active involvement of the community in managing the</p>



	<i>Sampah Domestik (2014)</i>	Noeng Muhadjir(Mulasari, Husodo, & Muhadjir, 2014)	specifically, acase study. The phenomenon that became a study in this research was the waste management policy in DIY.	waste. It is expected to change people's behavior so that the carrying capacity of the environment can continue to be experienced by the community. The economic benefit derived by the public when they are going to manage waste independently.
6	<i>Analisis Situasi Permasalahan Sampah Kota Yogyakarta Dan Kebijakan Penanggulangannya(2016)</i>	Asti Mulasari, Adi Heru Husodo, Noeng Muhadjir(Mulasari, Husodo, & Muhadjir, 2016)	The method of research is qualitative descriptive. The sampling technique used is purposive sampling.	The results showed the most garbage volume was produced by Yogyakarta City, followed by Sleman, and Bantul. At the end of the year, most likely trash in DIY increases because it is a holiday season and many tourists visit from other areas to DIY. Like the case in the city of Yogyakarta, the urban areas almost always have the same waste problem.
7	<i>Efektivitas Penanganan Masalah Sampah</i>	Ni Made Trisna Yogi,	This research method used is	From the research conducted, the handling of community-based waste

	<i>Berbasis Masyarakat Di Desa Tangkas Sebagai Penerapan Peraturan Daerah Kabupaten Klungkung No. 7 Tahun 2014 Tentang Pengelolaan Sampah (2016)</i>	Ngakan Ketut Dunia(Yogi & Dunia, 2016)	an empirical research, using a statutory approach and a fact approach.	through the 3R TPS proclaimed by the Government of Tangkas village has been effective, but there needs to be additional manpower to do garbage processing in TPS 3R. Nowadays, both on the roadside and the river have been freed from garbage, and villagers participate in the handling of garbage in every house.
8	<i>Implementasi Kebijakan Pemerintah Dalam Pengelolaan Sampah di Kabupaten Dili Negara Timor Leste (2015)</i>	Dedeng Yusuf Maolani, Deding Ishak(Maolani & Ishak, 2015)	This study uses a descriptive method. The researchers want to provide explanations on how the implementation of waste management policies in East Timor is.	The results showed that the realization of providing waste management program in East Timor, Dili in 2015 was in 4 (empathy). The district went well, and the budget of Environmental Hygiene program was from the central government, namely the Ministry of Interior Timor-Leste. The implementation of a predominantly policy initiative gives more initiatives from the central government (Top Down).

				Dili District Government gives more community empowerment that practice general education and specialization and evaluation of government policy implementation in the implementation of waste management program.
9	<i>Peran Masyarakat Dalam Menanggulangi Sampah Di Kelurahan Kamonji Kecamatan Palu Barat (2016)</i>	Moh. Zulkifli B.Yunde (Yunde, 2016)	This type of research is qualitative research focusing on descriptive research methods and using a survey approach.	The results showed that the role of society in tackling the garbage created in the activities of rights and obligations, thinking, planning, implementing and evaluating community programs are classified as low, the form of community role in tackling garbage is said to be still less satisfactory. The factors affecting the involvement of people in tackling garbage are still relatively low, and waste management system is still less satisfactory.
10	<i>Implementasi Kebijakan Pemerintah Dalam</i>	Rizka Firdausia Fitri,	In this study, using	The results of Taman TPA Randegan in Mojokerto were to

	<i>Inovasi Pengelolaan Sampah Terpadu (Studi Kasus di Taman Tempat Pembuangan Akhir (TPA) Randegan Kota Mojokerto) (2019)</i>	Nurul Umi Ati, Suyeno(Fitri, Ati, & Suyeno, 2019)	purposive sampling. Purposive sampling is Sampling techniques used by researchers if certain considerations are taken in the sampling.	implement government policy in the innovation of waste management, namely the Wet Waste management program Dry garbage, parks and education are expected to be a benchmark in dealing with garbage problems.
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Based on the explanation above, the researcher more focused on waste management and lack of socialization of the community that has not been aware of waste problems. Meanwhile, the study is to get more recent results of tackling the garbage problem which are different from the previous research because of different participations and research setting (Yogyakarta).

## **F. Theoretical Framework**

### **1. Urban Management Theory**

Urban management is the management of urban resources related to the fields of spatial planning, land, economy, finance, environment, services, investment, infrastructure and urban facilities; and also urban managers are officials (Government) urban managers (Dinas Perumahan Kawasan Permukiman dan Penataan Ruang Kota Medan, 2017).

According to Minister of Home Affairs Decree No. 65 of 1995, urban management is an effort the process of implementing city plans to achieve urban development targets efficiently and effectively. In the process of this effort, of course the government also wants to optimize the achievement of objectives through the appropriate stages and carries out in an integrated manner.

Urban management involves many sectors, fields, and stakeholders, but in general the field of urban management can be divided into 2 namely:

#### 1. Physical field

Physical field intends that all resources manage the urban infrastructure, including efforts to conserve natural resources that affect the development of the city

#### 2. Non Physical field

Non physical field is all related to the development of quality of human resources and the community, institutional, city economy and surveillance systems as well as the development control of the city.

Government has the role to coordinate the related parties and utilize existing resources to realize the goals of an organization urban. The goals are:

- Able to distinguish space, city and territory, and able to explain the system of cities; structure, shape, type and magnitude of the city.
- Able to analyze the cities in Indonesia based on the structure, shape, type, magnitude and problems faced.
- Able to identify the problem of the city and find solutions to the problem, in the context of trend, change and influence of internal and external factors.

## 1.1. Evaluating City Management Performance

In the following subsections, there are criteria to evaluate city management performance.

### 1. Increased standard of living

- Diversification of resources is originally only for consumption needs, then also to support investments in order to improve production
- Producers compete effectively in order to provide goods and services to consumers
- The resource is used and handled in a conical; efficiently and effectively.

### 2. Equitable and justice

- Equitable distribution of mean cost and benefits are distributed evenly, but still specifically pay attention to the weak and unlucky sides.
- Justice in its principle, there are not restrictions and discrimination and provide equal opportunities for all groups of characters.
- Justice also means that there is similar treatment for all in obtaining public services (justice horizontal).
- However, the more there are rich societies, the more they should contribute on the cost of public services (justice vertical).
- The public “pays” based on what is used.

### 3. Sustainable Environment

- Resource conservation that is non-renewable and uses renewable resources in a sustainable way
- Minimize the impact of development and activities on vulnerable ecological situations

- Minimize the risk of irreversible negative changes, such as the damage to the ozone layer, global warming, natural and social disasters
- Minimize air, water, soil pollution
- Ensure sufficient and sustainable resource supply systems

#### 4. Fulfillment of responsible rights

- Freedom to think, to believe, to speak, to worship
- Individual freedoms to choose to use time and money, in consumption, work, living, etc
- Personal and social freedom to fulfill basic needs, self-realisation, self-esteem and dignity, creativity, cultural identity, community value and mutual support
- Political freedom
- Security and safety guarantees, and property rights

#### 5. Implementation of policies, plans, and programmes

- Effective in the administrative and resource capacity aspects
- The presence of transparent governance organizations
- Implementation efforts manifested in the political will aspect

#### 6. Conflict resolution and uncertainty

- Concern on conflicts resolution between social justice and the market mechanism, between growth and environmental sustainability, between modernity and tradition
- Pay attention to the accuracy and completeness of data and the correctness of analysis process to minimize ( Manajemen Perkotaan Pasca UNHAS, 2014)

## **2. Waste Management**

According to Law No. 18 of 2008, Waste management is a thorough systematic activity with the continuous reduction and handling of garbage. According to Slamet, in the business of waste management both in large and small scale, when it has been achieved its purpose, namely the environment and healthy society, then the main factor to be considered is the role, and society must understand and participate.

According to Poerwadarminata (1991), management is the implementation or action that a person or group of people (the company) in doing something, there by benefiting from the management. (W.J.S.Poerwadarminata, 1991)

Based on Department of Health in garbage disposal manual, waste management is a field related to the arrangement of growth, storage, collection, transfer and transport, processing and disposal of garbage (Kesehatan, 1987).

Riyadi (1986) says that good waste management is if garbage does not become the growing place of seed disease (Riyadi, 1986 )

### **2.1 Waste Management Aspects**

#### **1. Operational aspects**

Damanhuri (2010) identifies operational processing activities (including sorting) of municipal garbage which include planning, implementing, monitoring, evaluation, reporting and financing activities for some processes. They are:

##### **1. Garbage container**

Garbage container is a way of garbage disposal while in the source well to the waste generated by people and communal, both of them are temporary and permanent, such as a landfill.



Ideally, the waste container is adapted to the type of waste (organic/ inorganic or hazardous materials), so the subsequent processing becomes easier, especially for the purpose of recycling.

## 2. Garbage collection

Garbage collection process is carried out from garbage source to temporary garbage shelter, to the place of garbage processing, or directly to the final processing place without going through the transfer process. The length of time and the mechanism of garbage collection process differ from one city to another.

## 3. Garbage removal

Garbage removal is the process of moving from the final processing place of collection. Generally, garbage transfers in large cities are carried out by cleaning officers that use mechanical or manual equipment or a combination of both.

## 4. Transportation

In residential areas, the transportation of litter generally uses a cart or small truck. To carry the garbage to the shelter, it can use big trucks which have suitable size to the volume of carried garbage. The equipment used to carry the garbage in big cities is such as: truck, dump truck, compactor truck, multi loader, crane, and a road sweeper car.

## 5. Garbage processing (including waste utilization for various purposes).

B3 Garbage (materials, hazardous and toxic) households are managed, specifically based on the regulation in the area. The techniques of processing waste that are done today include the selection of garbage, both manually and mechanically. They are:

- Compaction of garbage.
- Cutting garbage.
- Composting garbage.

- Processing as a source of bio gases.
- Combustion in incinerators with thermal energy utilization.
- Garbage recycling activities.

## **2. Institutional aspects**

An organization and a management have a key role in mobilising, activating and directing the waste management system with institutional form scope, personnel organizational pattern and management. Institutions in the system of waste management hold very important roles, including: organizational structure, functions, responsibilities and authority as well as the coordination of both vertical and horizontal of the management board (Widyatmoko & Dra. MM. Sintorini, 2002).

The number of waste management personnel must be sufficient in accordance with the scope of their duties. For the collection system, the number of personnel is at least 1 person per 1,000 population served while the transportation system, final disposal system and staff are at least 1 person per 1,000 population.

## **3. Financing aspect**

This aspect of financing serves to finance the operation of waste management, started from waste/removal, collection, transfer and transport, processing and disposal of the power. During this time in urban waste management requires considerable subsidies, and then it is expected that this waste management system can fulfill the needs of its own funds from retribution (Dit. Jend. Tata Perkotaandan Tata Perdesaan, Dep.Kimpraswil, 2003).

According to SNI – T-12-1991-03 on operations of urban waste management, the cost of waste management is calculated based on operational and maintenance costs and equipment changeover. The comparison of management costs of the total cost of waste management is presented as follows:

- The cost of collection 20 % - 40 %.
- The cost of transport of 40 % - 60 %.
- The cost of final disposal 10% - 30 %.

The cost of waste management is sought from the community (80%) and local governments (20%). It is used for public services and among others: road-clearing, channel cleaning and public places. Meanwhile, the Waste Management fund of a city is required at least  $\pm 10\%$  of the APBD. The amount of garbage retribution is based on the operational costs of waste management (Dit. Jendral Tata Perkotaandan Tata Perdesaan, Dep.Kimpraswil, 2003). In Indonesia, the amount of retribution that can be drawn from the community per household is  $\pm 0.5\%$  and a maximum of 1% of income per household and per month (Dit. Jendral Tata Perkotaandan Tata Perdesaan, Dep.Kimpraswil, 2003: p. 67).

#### **4. Regulatory/Legal aspects**

The principle aspects of the waste management regulation in the form of regional regulation which is the basis of waste management law which include (Hartoyo, 1998: hal. 8) :

- *Perda* (local regulation) that is associated with the general provisions of hygiene management.
- *Perda* about the form of formal institution of hygiene management.
- Special *Perda* determines the structure of rates and basic rates of hygiene management.

These regulations involve the authority and responsibilities of hygiene managers as well as community participation in maintaining hygiene and payment of retribution.

#### **5. Aspects of community participation**

Community participation is very supportive of the waste management program of the region. The community participation in the field of waste is the process which people as

consumers, producers of waste services and residents affect the quality and smoothness of the infrastructure available to them. The community participation is important because its role is a tool to get information about the conditions, needs and attitudes of local people, the community more trust project/development program if it is involved in the preparation and planning process (LP3B Buleleng-Clean Up Bali, 2003: hal. 40). The aspects of community participation can be seen from:

- The garbage retribution payment routine.
- Community participation in the work activities.
- Provision of private bins.

### **3. Participation**

Many experts give an understanding of the concept of participation. When viewed from the origin of the word, the word participation comes from the term, "participation", which means part-taking, following (Echols & Shadily, 2000).

Participation means the participation of a person or community group in the development process either in the form of a statement or activities by providing input on thoughts, energy, time, expertise, capital and or material, taking advantage of, and enjoying the results of development (Sumaryadi, 2010).

According to Isbandi (2007), community participation is in the process of identifying problems and potentials in the community, selecting and making decisions about alternative solutions to dealing with problems, implementing efforts to overcome problems, and community involvement in the process of evaluating changes that occur.

According to Sundariningrum cited in Sugiyah (2001: 38), participation is classified into 2 (two) based on the way of involvement, namely:

a. Direct Participation

This is a participation that occurs when individuals perform certain activities in the participation process. This participation occurs when everyone can put forward a view, discuss the subject matter, and focus on the wishes of others or against his words.

b. Indirect participation

This is a participation that occurs when individuals delegate their participation rights.

### **3.1. Forms of Participation**

There are several forms of participation according to Effendi, cited in Siti Irene Astuti D (2011: 58), involving:

a. Vertical Participation

Vertical participation occurs in the form of certain conditions where the community is involved or takes part in another party's program and in a relationship where the community is a subordinate, follower, or client.

b. Horizontal participation

In horizontal participation, society has an initiative in which every member or community group participates horizontally with one another.

People can be said to participate if they are active in an activity that involves mentally and emotionally, not just coming and being passive towards the activity. Moreover, responsibility is one element of participation, which has positive implications for society because people have the opportunity to learn from things that are then upgraded to great things, have confidence in their own abilities, and have the opportunity to decide what they want.

## **G. Conceptual Definition**

Conceptualizing is a common thought describing the concepts and specific terms that will determine the variables that are interconnected. The conceptual term is more concrete as the guideline, so the operational definition is required.

The definitions of this research data are as follows:

- Urban management

Urban management is the process of managing an area in various aspects according to provisions and appropriate and integrated stages.

- Garbage Management

Garbage management is an activity done to classify the garbage that will be processed responsibly; thus, it is to reduce the garbage heap. The aspect for the waste management is :  
a)Operational aspect, b)Insitutional aspect, c)Financing aspect, d)Regulatory/legal aspect,  
e)Aspects of community participation

## **F. Operational Definition**

This study was to find out the strategy of the Environment Agency in tackling the waste problem of Yogyakarta City 2018/2019 using waste management variables, with the following indicators:

1. The operational aspect is one of the efforts to control the growth of waste. It can be measured by:

- a) Provision of trash bins according to the type of garbage and to know the generation and composition of the garbage.

- b) Methods used in garbage collection.
  - c) Routine garbage removal.
  - d) Adequate facilities and infrastructure for garbage transportation.
  - e) Reducing and handling garbage by optimizing waste banks and carrying out other activities.
2. The institutional aspect is an organization that moves, activates, and directs the waste management system with the scope of institutional form. It can be measured by:
- a) Placement of employees according to their expertise.
  - b) Implement tasks, principals and functions in accordance with the rules.
3. The financing aspect functions to finance waste management operations. It can be measured by:
- a) Human resources financing garbage management.
  - b) Garbage management operational financing.
4. The regulatory aspect is waste management in the form of regional regulations which are the legal basis for waste management which include: Regional regulations on general provisions for hygiene management.
5. The aspect of community participation in the solid waste sector is a process in which people are both consumers and producers of solid waste services. It can be measured by:
- a) Routines of payment of garbage retribution not running well.
  - b) Lack of awareness participation in community service activities.
  - c) Provision of trash bins independently by the community.

## **G. Research Methods**

### **1. Type of Research**

This research focuses on the government's efforts in tackling the garbage of Yogyakarta. The researcher tries to explain the waste management in Yogyakarta City, which is a tourist place that every time, and the population has increased a lot.

The research method used is a descriptive study under a qualitative approach. This qualitative research aims to lift facts, circumstances, and phenomena that occur when the research progresses and presents what is, attitudes and views that exist in the community.

To conduct a subsequent assessment of the term, a qualitative research should be put forward some definitions. Bogdan and Taylor (1975:5) defines that a "qualitative method" as a research procedure that generates descriptive data of written or spoken words from people and behaviors that can be observed (Moleong, 2002 ).

### **2. Sources and Types of Data**

The types and sources of data used by the researcher are:

#### **1. Primary data**

Primary data are the data that are directly collected from the first source. The primary data sources in this research were obtained directly from the place where the research was conducted, namely the results of interviews from the Environment Agency of Yogyakarta city and the garbage carriers.



## 2. Secondary data

Secondary data is a source of data obtained from the sources of reading related to the problem. The secondary data in this research were the documentation data from the Environment Agency of Yogyakarta city and the related studies previously.

## 3. Data Collection Technique

### 1. Interview

The interview is the collection of data with unilateral questioning way which is done systematically and continuing to the research purpose. The author did verbal questions or face-to-face. It was intended to obtain a description or opinion of the respondents about matters related to the framework and purpose of this research (Salim, 2006: hal.16). In the interview, the target is the Environment Agency and garbage carriers.

### 2. Documentation

The method of documentation is to search for the data on things or variables in the form of legislation, notes, books, newspapers, magazines, meetings, agenda, and so on. The data became to the secondary data. To observe complex events, it can use tools such as cameras, video tapes, and audio tape recorders (Purhayani, Strategi Dinas Lingkungan Hidup Dalam Mananggulangi Sampah, 2019).

## 4. Data Analysis

Data analysis is the process of organizing and sorting data into patterns, categories and basic description units, so the themes can be found and the hypotheses can be formulated as

suggested by the obtained data. They are organizing, sorting, classifying, coding and categorizing (Siyoto & Sodik, 2015).

Data analysis is the simplification of data into a specific form that is easiest to read. In this study, it was intended to determine the strategy. After the data were collected, the researcher performed data processing to facilitate analysis. According to Moleong, the processes of analyzing data were as follows:

a. Data reduction

Reducing data means summarizing, selecting the main things, focusing on the important things, looking for themes and patterns and removing unnecessary. Therefore, the aim of the research was not only to simplify the data, but also, to ensure that the data processed were the data included in the scope of the study.

b. Presentation of data

According to Miles and Huberman, the presentation of data is a collection of structured information that gives the possibility of drawing conclusions. This step was carried out by presenting the organized set of information that gives the possibility of drawing conclusions. This was done on the grounds that the data obtained during the qualitative research process were in the narrative form, so they required the simplification without reducing the content.

c. Conclusion and verification

Conclusion and verification were the final stage in the data analysis process. In this section, the researcher expressed the conclusions from the data that has been obtained. This activity was intended to find the meaning of the collected data by looking for the relationships,

similarities, or differences. Drawing conclusions can be done by comparing the suitability of the statements of the research subjects with the meanings contained with the basic concepts in the study.(Siyoto & Sodik, 2015).