

CHAPTER I

INTRODUCTION

1.1 Background

Earth has limited natural resources. This is not comparable to the growth of existing human resources. It cannot be denied that the rapid growth of human resources must be supported by the maximum utilization of natural resources. The utilization of natural resources that are used massively is not balanced with processing the remnants of production which eventually become waste. The waste will later become a complex problem, especially in industrial areas. This waste will be the source of environmental pollution.

Environmental pollution can cause imbalances in the ecosystem and can also threaten life from time to time. According to Law number 4 Year 1982, environmental pollution is the entry of an energy substance or component that damages the environment, or changes to all forms of environmental order both the results of human activities and natural processes, so it can threaten the quality of the environment.

There are several types of environmental pollution (Sumampouw, 2015). Firstly, air pollution is caused by exhaust fumes, such as CO₂, CO, CFC, and cigarette smoke. CO₂, known as Carbon Dioxide, is retrieved from factories or machines which use fossil as the fuel. Besides carbon dioxide, there is also CO, known as carbon monoxide. CFC is another example of air pollution, and can be found in air conditioner. The most finding cause is cigarette smoke that causes lung cancer.

Next is soil pollution that comes from domestic waste, industrial waste, agricultural waste even farming waste. There are types of the waste. One of them is organic waste such as leaves, paper, and skins. The organic waste is considered easy to ravel. In the other hand, inorganic waste is not easy to be ravelled such as glass, aluminum, and other synthetic waste (plastic).

Third is water pollution. According to Government Regulation (Peraturan Pemerintah Number 20 Year 1999) water pollution defined as:

“Water pollution is the entry or inclusion of living things, substances, energy and / or other components into the water by human activities that make the quality of water drop to a certain level which causes the water to no longer function according to its designation.”

It cannot be denied that water is the most valuable resources. It is the essence of every living creatures. Almost 90 percent of our body contains water. Water is needed for irrigation or even daily use as a potable water. Everyone has the right to gain the access of clean water. One way to get clean water is to utilize the river. River water flow in every part of the Indonesian hemisphere can be used unless it was polluted by several factors explained before. The pollution affects the water, so it cannot be used.

Nowadays, the frequency of environmental pollution occurs rapidly. Besides the natural factor, the lack of supervision of human activities is considered as one of the factors supporting the rapid rate of environmental pollution. Polluted rivers are mostly found in large cities that have many industrial factories. The large amount of industrial waste is produced by factories.

Besides the industrial waste, the society is also considered to be one of the sources of pollution by contributing in domestic waste. The environmental awareness within the society itself is lacking. There are often found rivers with domestic wastes that accumulate on the banks of the rivers. Domestic wastes come from the houses surrounding the river. The development of settlements also exacerbates the pollution in the river.

Indonesia has several rivers that experience high levels of water pollution affecting the use of river water; one of which is Cisadane river. Cisadane river is famous for its river water pollution which has exceeded the threshold (Namara, M Hartono, Latief, & Sarwanto Moersidik, 2018). Cisadane River is located in Banten province. The river functions are as irrigation, industry and the source of clean water. The river that passes through five provinces (Bogor City, Bogor Regency, South Tangerang, Tangerang City and Tangerang Regency) is located in Tangerang which is famous for its industrial factories, this greatly affects water pollution due to the uncontrolled amount of garbage or waste disposal. In addition to industrial factors, another factor that has made the Cisadane river polluted is the rapid growing population.

Bekasi River had been having the same problem in a couple of years. As the clean water source, Bekasi River affects every aspects in life. Having the polluted river, the local water company hold the clean water supply. Besides affecting the clean water supply, On the 17 May 2018, a large number of cork fish died that affect the food chain and also destruct the ecosystem (Pahrevi, 2018). In addition to that phenomenon, the quality of the water is decreasing. It smells bad and is foamy in the surface of Bekasi River and happened until the 3rd of September 2018. Thus, it

affects the clean water supplied by the local water company. Dinas Lingkungan Hidup Kota Bekasi (*Aforementioned Bekasi Environmental Agency*) form Unit Reaksi Cepat (*translated Fast Reaction Unit*) or URC to follow up the problem. There are 18 companies listed and built their factories along the Bekasi River. In 2017, there are two factories sealed by the government. Those factories violated the Local Regulation of Bekasi Number 9 Year 2013 (Putsanra, 2017).

"This time in Bekasi, right, it has been polluted for a long time, and I (in 2017) have stated that Bekasi River is not feasible for drinking water treatment. I have conveyed this to the PDAM (local water company)," – The head of Environmental Agency of Bekasi to Kompas.com on Tuesday, 4th of September 2018)

On the 2 October 2018, Bogor Government had shut down four factories that polluted Bekasi River in a couple of months (Ikhsan, 2018). Those companies are built on the upstream of the Bekasi River. Those factories are indicated on not having the Wastewater Treatment Plant (IPAL or WWTP). Based on the description, it is necessary to have a study proposed in gaining an understanding of the implementation process of the waste water management policies. Hence, the researcher raises ***"The Program Evaluation of Environmental Agency (DLH) in Managing Water Pollution of Bekasi River Year 2016 - 2019"***.

1.2 Research Question

Based on the research background provided above, the research question is stated as follows: How is the program implementation of Environmental Agency of Bekasi City in managing the water pollution of Bekasi River?

1.3 Research Objective

Based on the research question above, the researcher aims to evaluate the program of Environmental Agency of Bekasi City in managing the water pollution of Bekasi river.

1.4 Research Justification

The benefits of this research can be used as a new reference for future researchers. In addition, this research is expected to be a comparison in implementing a program going forward. Regarding the proposed goals of this research, the benefits can be drawn from this research that are:

1. Theoretical Benefits

Tightly bonded with the program implementation, this research has an outer benefit for the readers, for instance, bureaucrats and politicians as the new references for future prospect which contain related information to the program implementation of water pollution in Bekasi City.

2. Practical Benefits

Beyond the theoretical benefits, it is also expected to carry out practical benefits in searching the key elements of the program implementation becomes the major issue in this research which needs to preserve in managing water pollution in Bekasi River.

1.5 LITERATURE REVIEW

According to Shora (2016) with the titled *“The Performance of Badan Pengendalian Lingkungan Hidup (BPLH) in Supervising the Management of Waste Management (IPAL) in Industrial Estates in Bekasi Regency”*, the research used a qualitative approach with a type of descriptive research. The data was analyzed through interactive models of Miles and Huberman. The result of the research was that the monitoring of IPAL management had not been done properly and effectively because of the lack of adequate staff or expertise which can also affect the time management in monitoring process. Besides the lack of expertise, the lack of wastewater indicator also became the problem of BPLH of Bekasi Regency. The researcher above only focused on the installation of wastewater treatment plan, while the research that is examined focused on the program implementation of managing the water pollution in Bekasi River.

Next, the second research is done by Baihaki (2018) with the title *“The Role of Dinas Lingkungan Hidup on Water Quality Management and Water Pollution Control in Metro City”*, the data was analyzed through descriptive qualitative method. The result of this research was that Environmental Agency had done programs which had been planned before, such as the conservation of resources in Metro City, flood mitigation, and also technologies socialization. Moreover, in managing water pollution the agency had planned in wastewater and hazardous waste management. Sanctions were given by the environmental agency towards the violators. There were few obstacles experienced by the agency, including the lack of staffs in laboratory sections. After that, the amount of wastewater installation within the place of business were limited. This is also caused by the lack of

knowledge in processing the waste. From the research above, the different between this research was the theory used.

The research titled “*The Role of Badan Lingkungan Hidup in Peran Badan Lingkungan Hidup dalam Pollution and Environmental Damage Control in Sleman Regency*” was done by Rahmawati (2016). The data was analyzed through descriptive qualitative method. The research focused on the role of environmental agency in controlling the pollution in general, and it does not only focus on more than one type of pollution. Moreover, Rahmawati also focused on the regulation. The regulation was one of the factors affected the role of Sleman Environmental Agency. There was no regulation regarding the protecting and managing the environmental. It lacked the regulation regarding the pollution management. Like other environmental agencies, there was also a shortage of adequate staff.

According to Hudah (2011) with the titled “*The Performance of Badan Lingkungan Hidup of Surakarta City to Overcome the Wastewater Pollution of Batik in Laweyan Kelurahan*”, the approach used was qualitative approach with descriptive method. The data was analyzed through interactive model. The theory used in this research was performance theory developed by Bastian. The research focused on the batik waste. This research focused on the responsiveness of the Environmental Agency of Surakarta. Although the responsiveness of the Agency is considered optimal in the view of socialization, the productivity was less optimal due to lack of human resources. The supervision was lacking because it was only done up to four times annually for the big industries. Meanwhile, for the small industries, it was only supervised for twice annually.

Based on four articles above, the focus is on the obstacles in running the programs to manage the water pollution. There are two main factors; monitoring of wastewater installation (IPAL) and the shortage of adequate staff. These two factors always appeared in four articles. The problems that keep arising are the lack of adequate staff or expertise which can affect the process especially in monitoring process. Another activity that can affect environmental pollution is the monitoring of environmental quality. It was discussed by Baihaki (2018) and Rahmawati (2016). The monitoring or conservation of environmental quality is needed to be done to determine the proper management of the environment for the area. Besides monitoring the environmental quality, it is needed to socialize the importance of river to gain the participation of people who live surrounding the river. The participation of people play an important role.

In contrast with other articles, Rahmawati (2016) discussed regarding the lack of environmental regulation and pollution management regulation. It appears in Sleman Regency which has no regulations regarding the protection or management of the environment. There were no local regulation stating about function and tasks of the regions agency in controlling the pollution or environmental destruction.

Compared to the articles above, the Environmental Agency of Bekasi City seems to have prepared the resources and facilities that are needed to run the programs and also to manage the water pollution of Bekasi river. Besides the readiness of resources, the management of water pollution in Bekasi City has also been protected by the law concerning the management of hazardous and toxic waste written in Bekasi Local Regulation. The water pollution happened in the

past two years ago, and then what are the obstacles faced by the Environmental Agency of Bekasi City if the resources and the laws are ready?

1.6 Theoretical Framework

1.6.1 Program Evaluation

Program evaluation is a series of activities carried out intentionally to see the success of the program. There are some understandings of the program itself. According to Cronbach and Stufflebeam (1971) cited in (Erowati, 2017) program evaluation is an effort to provide information to be conveyed to decision makers (cited in Puspitasari, 2012).

According to Anderson (1975) cited in Winarno (2008) "in general, evaluation can be said as an activity that involves estimating or evaluating policies that cover the substance, implementation and impact of implementing the policy" (p. 175) Arikunto (2007) stated that "evaluation is an activity to collect information about the workings, and then the information is used to determine the right alternative in making decisions".

From some of the definitions above, it can be said that program evaluation is a process of collecting scientific data or information whose results can be used as consideration for decision makers in determining policy alternatives.

According to Mulyatiningsih (2011, p. 114) cited in Puspitasari (2012), evaluation aims to:

- Demonstrate program contributions towards achieving organizational goals. The results of this evaluation are important for developing the same program elsewhere.

- Make decisions about the sustainability of a program, whether the program needs to be continued, corrected or stopped.

Viewed from the goal, which is to know the condition of something, then the evaluation program can be said to be one form of evaluative research. Therefore, in program evaluation, the executor thinks, and determines the steps for carrying out the research. According to Kaufman and Thomas, cited in Suharsimi Arikunto and Cepi Safruddin Abdul Jabar distinguished the evaluation model into eight, as follows (in Erowati, 2017):

1. Goal Oriented Evaluation Model is developed by Tyler. In this model, an evaluator continuously monitors the predetermined number. This ongoing assessment assesses the progress made by program participants and the effectiveness of the findings is achieved by a program.
2. The Goal Free Evaluation Model is developed by Scriven. In this model, Scriven argues that in evaluating a program evaluators do not need to pay attention to what the program objectives are. What needs to be considered in the program are how the performance of a program by identifying appearances that occur both positive things or negative things.
3. The Formative Summative Evaluation Model is developed by Michael Scriven. This model designates the existence of stages and scope of the project, which are evaluated, ie evaluations carried out on the program are still ongoing (called formative evaluation) when the program is completed or ended (called summative evaluation).
4. Countenance Evaluation Model is developed by Stake. The model developed by Stake and Fernandes emphasizes or has two main features of

description and consideration, and is divided into three stages of program evaluation, namely antecedents interpreted as contexts, transactions interpreted as processes and outputs, and outcomes that are interpreted as results .

5. Responsive Evaluation Model is developed by Stake. This model is a model that is suitable to be used to evaluate programs that cause many conflicts in the community. Evaluation decisions are oriented to clients or program users.
6. CSE-UCLA Evaluation Model emphasizing on "when" evaluations are carried out. This model consists of two abbreviations, namely CSE and UCLA. CSE stands for Centre for the Study of Evaluation while UCLA stands for University of California in Los Angeles. The characteristic of the UCLA-CSE model is that there are five stages of evaluation, namely, planning, development, implementation of results, and impacts. Meanwhile, according to Fernandes in the UCLA-CSE model, it can also be divided into four stages of evaluation, namely needs assessment, program planning, formative evaluation, and summative evaluation. Basically, the phases put forward by Fernandes are the same as the stages in the CSE-UCLA model. The stages of planning and developing programs require an evaluation phase called needs assessment. At the implementation stage, formative evaluation is needed, while for finding out the results and impacts of the program, summative evaluation is needed.
7. CIPP Evaluation Model is developed by Stufflebeam that will be explained below.

8. Discrepancy Model is developed by Provus. This model was developed by Malcolm Provus which is a model that emphasizes the view of gaps in the implementation of programs to measure the magnitude of the gaps that exists in each component.

A. CIPP Evaluation Model

The model used in this study is a decision-making model developed by Stufflebeam known as the CIPP Evaluation Model. CIPP stands for context, input, process and product. In the book of Mulyatiningsih (cited in Puspitasari, 2012) stated that CIPP evaluation is known as formative evaluation with the aim of making decisions and improving programs. The CIPP model is applied in order to support the development of an organization. Compared to other models, CIPP has a complete model. The CIPP model is chosen because CIPP is considered as the most complete model throughout all models of evaluation. It contains formative and summative models combined in one model. It also concludes the other factor beside the organization. There are four components of CIPP models, namely (cited in Mahmudi, 2011):

- a. Context

This component aims to identify the strengths and weaknesses to improve the organization. Besides identifying the strengths and weaknesses, context also inventories the strength that can be utilized to cover its weaknesses and diagnose problems faced by the organization, and to look for solutions. Evaluating the context also aims to assess what

goals are and predetermine priorities fulfill needs parties that are the target of the organization.

b. Input

This component is intended to determine the program to make changes. Evaluation of inputs seeks obstacles and potential resources. The main goal is to help clients reviewing alternatives related to the needs organization and organizational goals. On the other words, input evaluation serves to help clients avoiding futile innovations, and is expected to fail or at least squandering resources.

c. Process

The third component checks plan implementation. The goal is to give input for managers and their staff about conformity between the implementation of plans and schedules that have been made previously and the efficient use of existing resources. If the plan needs to be modified or developed, process evaluation provides instructions. Another noteworthy thing is to assess periodically how much far the acceptance of program participants and their success in carrying out their roles are and give notes complete information about the implementation of the plan and its comparison with its original purpose. Process evaluation aims to identify or to predict obstacles in the implementation of activities or program implementation. Evaluation is carried out by recording or documenting every event in the implementation of activities, monitoring activities that have the potential to hamper and to cause unexpected difficulties, finding specific

information that is outside the plan assessing and explaining the actual process (Muryadi, 2017). During the evaluation process, evaluators are required to interact with the program implementing staff continuously. This component becomes a vital source of information to interpret the result of the program.

d. Program

The main purpose of product evaluation is to measure, interpret and decide on the results achieved by the program, namely whether it has been able to meet the needs that are in accordance with the expected goals. The product aims to assess the success of the program in meeting the target's need program. Assessments of the success of this program or organization are collected from people involved individually or collectively, and then are analyzed. Successes or failures of the program is analyzed from various perspectives. The steps can be initiated by assessing organizational performance based on diagnosed needs. Next, product evaluation also examines the impact program, whether it is not in accordance with the objectives and intentions of the program, positive or negative. Evaluation products are often expanded by assessing impacts long term program. The final function is decisive whether the program or organization needs to be continued, repeated, and / or developed in other places.

1.6.2 Water Pollution

Water are used for preparing and cooking food, and also for many other purposes in the household; it will be useful to know something about the sources of

water about the way in which water is collected, distributed, tested improved and in too many cases, polluted. Now all the water is circulating upon the earth with the same as the blood circulates in the human body. From the sea and any other water sources, it is raised as a pure invisible vapor , and then it forms into clouds by separating form the air, and it falls in rain, dew, and mist in snow, hail and sleet. All the rain that falls upon the earth washed out something or other from the land or the rocks, and carries these things down the streams to rivers and at last to sea.

Rain water is generally flat, often smoky in taste and look, and very frequently unwholesome. However, in villages and towns it is sure to gather impurities of many sorts. As the raindrops descending through the air, it takes up the floating bits of dust and dirt. It dissolves several gases some useful (oxygen and carbonic acid) and useless (nitrogen and ammonia) some which may do harm (Church, 1877). Besides coming from natural gases, water can get other harmful substances caused by human activities called water pollution.

Water pollution is one of the major environmental problems. As most other forms of environmental pollution, it has come about because of the industrial-urban growth and development over the past 60 to 70 years, particularly the past 20 years (Hennigan, 2006). Tarigan (2013) stated that water pollution is the substances, energy or other components mixed into the water, so the quality of water drops to a certain level which causes the water to no longer function in accordance with its designation. According to Kristanto (cited in Tarigan, 2013), water pollution is a deviation of water from normal condition.

Thus, It can be concluded that water pollution is the entering of living things, substances, energy and / or other components into the water by human

activities that make the quality of water drop to a certain level which causes the water to no longer function based on its designation. There are two types of waste namely, domestic and industrial waste.

A. Domestic Waste

Domestic waste usually comes in a form of liquid. Waste can be found in organic materials from food scraps, such as vegetables, fish, rice, oil, etc. In addition to organic materials, these wastes can also be obtained from inorganic materials such as aluminum, plastic or bottles which also drift away and accumulate into the garbage. This pollution causes flooding. The drift organic material will experience decay and produce bacteria and fungi that accumulate in the river. These fungi and bacteria will cause the biota in the river to die because of the lack of oxygen in the water.

This phenomenon is often found in big cities. One example that can be an indicator or a clue is that there are a large number of reddish *tubifex* worms. Domestic waste in Indonesia itself has reached 60% of all types of waste available.

B. Industrial Waste

Industrial waste comes from industrial factories that are intentionally dumped into rivers. There are many types of pollutants produced. Pollutants depend on the type of industry. Some of them are in the form of organic, inorganic pollutants; and sulfuric acid. For example, it is often seen that is pollution that occurring in the sea and rivers. There are often oil mine leaks in the sea which result in the sea becoming polluted with oil. Many coral

reefs, fish, seabirds and other marine animals die because of the effects of the oil spill.

1.7 Conceptual Definitions

Conceptual definition is the definition used to describe the phenomenon to be examined. This conceptual definition is also used to describe abstractly about events, group conditions or individuals that are the center of attention in social science. It means that the conceptual definition itself is to explain the limitation between one concept and the other concept.

1. Program Evaluation is a process of collecting scientific data or information whose results can be used as consideration for decision makers in determining policy alternatives, according to Stufflebeam (cited in Puspitasari, 2012) in CIPP model, there are four variables:
 - a. Context
 - b. Input
 - c. Process
 - d. Product
2. Water pollution is the entering of living things, substances, energy and / or other components into the water by human activities that make the quality of water drop to a certain level which causes the water to no longer function based on its designation. There are two types of waste namely, domestic and industrial waste.

1.8 Operational Definitions

The function of operational definition is to know the program evaluation of Bekasi Government on managing the water pollution of Bekasi River. This definition is observed through some variables, as follows:

Table 1. 1 Operational Definitions

No	Variables	Indicator	Measurement
1.	Context	- Goals	- The vision, mission and objectives of DLH in managing Water pollution of Bekasi River.
		- Background	- The quality of water in Bekasi River throughout 2016 – 2018. - The types of pollution in Bekasi river.
2.	Input	- Human Resources	- The quantity of the Environmental Agency staff in managing water pollution of Bekasi River - The quality of the staffs in managing the water pollution
		- Adequate Facilities	- Laboratory in measuring the quality of the water - Availability of surveillance camera to observe - Availability of transportation
		- Budget Allocation	- Availability of funds for each program in managing water

			<p>pollution of Bekasi River</p> <ul style="list-style-type: none"> - Annual budget plan throughout 2016 – 2018
3.	Process	- Planning	- The conformity between the budget plan and the expenditure in program of managing water pollution of Bekasi River
		- Implementation	<ul style="list-style-type: none"> - The Cooperation with other communities, such as KP2C (Komunitas Peduli Cileungsi-Cikeas), Amphibi (NGO) in managing water pollution in Bekasi River. - The participation of community surrounding Bekasi River.
		- Monitoring	- Monitoring the supporting factors or obstacles in the implementation of the program managing water pollution by the Environmental Agency of Bekasi City
		- Evaluation	- Availability of report document on the result of monitoring and evaluation of the programs.
4.	Product	- Impact of the program	- The changes of water quality (chemical and

			biological parameter) in the report of environmental status of Bekasi City. - The increasing number of PDAM membership
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1.9 Research Methods

1.9.1 Type of research

In this research, the researcher used a descriptive qualitative research in which the data was not in the form of numbers, but the data was obtained from interviews, memos, documents, notes, and other official records. One of the goals stated was to show the empirical reality in the phenomenon that occurs today, and to gain an understanding of reality through a process of thinking. Explanatory research is a research that explains the relationship between two variables. This research illustrates the phenomenon about cause and effect in the research. In this study, the researcher used explanatory qualitative research focusing on analyzing the evaluation of environmental agency programs in 2016 – 2018. The problem of this research was related to the program in managing water pollution of Bekasi river.

1.9.2 Type and Data Sources

In general, the data in this study can be divided into two types, among others, as follows (Ajayi, 2017):

a. Primary Data

Primary data is data one which is collected for the first time by the researcher. Primary data is factual and original. Primary data in this research was obtained from Dinas Lingkungan Hidup Kota Bekasi (*translated Environmental Agency of Bekasi City*) or DLH), and Primary data in this study includes: Observation and interview results. The primary data used in this study is detailed in the table below:

Table 1. 2 Primary Data

Primary Data	Sources	Quantity/ies
Interview	Staff of Pollution Control and Environmental Damage Sector of Bekasi City	5
	Staff of the Environmental Pollution Section of Bekasi City	5
	Members of <i>Tim Katak</i>	5
	Head of <i>Forum Masyarakat Pecinta Kali Bekasi</i>	1
	Society surround Bekasi River	4

b. Secondary data

Secondary data is the data collected or produced over the years. Secondary data is the analysis and interpretation of the primary data. The collection of secondary data is relatively easy and purposive other than the problem at hand. Secondary data used in this research includes: books, journals, notes, government websites, documentation, and other mass media related to the problem. Other secondary data sources include information materials on the program implementation issued by the environmental agency of Bekasi City, such as magazine, newsletters, news media, announcements or notices. The secondary data used in this research is detailed in the table below:

Table 1. 3 Secondary Data

Secondary Data	Sources
Documentation	Annual budget plan of DLH throughout 2016-2018
	Annual reports of program evaluation throughout 2016-2018
	Accountability Report of the Regional Head of Bekasi City in the year of 2016 - 2018
	Local Regulation on Permission for Disposal of Liquid Waste No. 7 of 2007
	Local Regulation on Management of Hazardous and Toxic Wastes No. 9 of 2013
	Local Regulation on Management of Domestic Waste No. 5 of 2018
	Report on the Environmental Status of Bekasi City 2016-2018
	<i>RPJMD</i> of Bekasi City Year 2013-2018

1.9.3 Data Collection Techniques

Data collection technique in this research used several techniques, they are;

1. Interview

Interview is an activity carried out to get information directly by asking questions between the interviewer and the informant. In this study, purposive sampling was used. Purposive sampling is a data collection technique which has certain considerations, such as the person is considered to know best about what the research is expected. The researcher used continuous adjustment or focused on the sample where the researchers will look for sources based on the data requirements needed. The researcher used semi-structured interview. This was intended to find problems more openly where the interviewees were asked for their opinions and ideas. The interview is addressed to the Head or staff of the Environmental Agency

of Bekasi City, the member of *Komunitas Peduli Cileugsi – Cikeas* (KP2C) and also the society surrounding the Bekasi River.

2. Observation

The method of observation is done by observing the behavior, events or activities of the person or group of people studied. According to Spradley cited in Djaelani (2013), the purpose of observation is to understand patterns, norms and meanings of observed behavior, and researchers learn from informants or sources and people who are observed. In addition, Spradley explained that what was observed was a social situation consisting of place, actor and activity. Observation took place at Bekasi River; the community surrounding the river and also industrial factories.

3. Documentation

Documentation is a data collection through documentation techniques in the form of books, journals, notes, government websites, documentation, and other mass media related to the materials on the program implementation issued by the Environmental Agency in Bekasi City.

1.9.4 Data Analysis Techniques

The data analysis technique used was qualitative descriptive. Qualitative research is a research procedure that produces descriptive data where the collected data is interpreted with words or sentences according to categories to obtain qualitative conclusions. The focus of data analysis is to simplify data in a form that is easy to be read and understood. Data in the form of written words, oral information from the speakers or the observed behavior can show various facts

during the study. Many experts classify the stages of processing, analyzing and interpreting qualitative data at least in five forms of activity (Indrawan & Yaniawati, 2014). First, validating data is a very important role in a study. Researchers must first ascertain whether the data found and its interpretation have been accurate or not. Validating data is using to ensure the credibility throughout the data. Second, organizing data is the classification of data and also reducing data that is not needed. There are two classifications of data, primary data and secondary data. Thirdly, present findings are organizing and arranging data into pattern of relationship between one event and another. Fourth, validating finding is checking and verifying the information. The last is interpretation of the meaning and the inference of the findings.