

Strategy for Implementation of Domestic Waste Water Management Policy in the Tirtawening Regional Water Company, Bandung City

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Abstract—This research is focused to discuss strategy for implementation of domestic waste water management in the Tirtawening Regional Water Company (PDAM) Bandung City. The research aimed to talk about the policy implementation, get to know factors which caused inefficiency of the policy implementation and strategy to implement the management of domestic waste water in Bandung City. The research used combination approach (*Mixed-Methods*) with concurrent embedded strategy which collaborated qualitative and quantitative approach to use simultaneously to support the research. The technique to collect the data used through observation, interview, literature study and focus group discussion (FGD). The research also used SWOT analysis with the result is strategy for implementation of domestic waste water management policy in the Tirtawening Regional Water Company (PDAM), Bandung City. The results of this research are (1). The implementation of domestic waste water management policy in Tirtawening Regional Water Company (PDAM) Bandung City is not efficient based on there are lot of opportunities but followed by low growth. (2) The influenced factors that have caused inefficiency of domestic waste water management policy in Bandung City are on resources, the executor and disposition/attitude of the executor. (3). The result of domestic waste water management in Tirtawening Regional Water Company (PDAM) Bandung City have drawn that company position is in the condition that have big internal power, however there are big threats from the opponents, therefore the strategy to implement is through diversification horizontal strategy through the institutional development based on organization culture, leadership and organizational structure.

Keywords—*policy implementation, strategy for policy implementation, waste water management*

I. INTRODUCTION

The environment in city is an important attention to district development, because it has big challenges to maintain the

clean and comfortable environment governance to the urban society in Indonesia. The environment in city especially in Bandung get lot of attentions, it is caused by urban society's lifestyle which needs adjustment to the surrounding environment. The impacts are increasing urbanization, concentrated community in one area, the emersion of slum housing with low quality of sanitation such as limited drink water, unsupported environment management and inadequate management of waste water. Related to domestic waste water management in Bandung City, it is still a problem due to low understanding of domestic waste water and the usage which half of the Bandung city's population keep stimulating the problem in domestic waste water management system.

The main tasks of Tirtawening Regional Water Company (PDAM) are written in Mayor Regulation in Bandung No.236 of 2006 said that "Main tasks of municipally owned corporation is engaged in drink water management and waste water management to increase the society's living standard through creating healthy society and the fixing of clean, health and sustainable sanitation in households". The importance of domestic waste water management policy in Bandung city caused the needs of community in Bandung City to have comfortable, excellent, welfare and religious. Previous researches regarding strategy for policy implementation related to domestic waste water management in Bandung City haven't been done by the researcher. Referred to document study which the researcher got have concluded that prior researchers have studied about the implementation of the policy regarding water pollution [1], the implementation of hospital waste water management policy [2], the implementation of hotel liquid waste management policy [3], waste water management policy evaluation, and Susanti, et al [4] domestic waste water management evaluation with IPAL Komunal in Bogor.

The recent condition have shown domestic waste water management in Tirtawening Regional Water Corporation

(PDAM) especially in waste water management concentrated (sewers) processed in Waste Water Management Installation (IPAL) Bojongsong with average debit water outlet reached 67.344 meter cubic per day (BPAL:2019). This debit will increase corresponding to population growth, so that IPAL Bojongsong condition, need to undertake the better maintenance and management. To develop the network of the waste water sewers that maintain by Tirtawening Regional Water Company (PDAM) also have done development through trunk sewer installation and lateral sewers network installation. The addition of waste water connection and supported programs from the government have become target to increase domestic waste water management service.

II. LITERATURE REVIEW

A. Policy Implementation Concept

Implementation is facility service to undertake some actions that will emerge impacts or causes towards something. Based on Carl Friedrich opinion, policy is an action that aiming to purpose that proposed by someone, groups or governments within one certain area in order to find possible opportunities through certain obstacles by reaching goals and realizing desirable targets. Winarno [5], explained that implementation itself is set of actions that undertake by government to reach goals that have been set in policy decision. However, to create those policies, government need to discuss first whether if the policy will create worst impact to the community. Public policy definition divided into three groups, which are;

(1). Public decision is seen as actions that made by state administrators, (2). Public policy is an effort to regulate the life together, (3). Something is seen as public policy if the benefits directly to the community [6].

Policy implementation is controlling execution of actions in the policy within a certain period. The result of public policy implementation always creates any possibilities as causes from actions that have been done by the administrators. The achieved results can fulfill the hope whether if the goal is reach or fail to result anything desirable. Wahab [7] said factors that will influence the success of policy implementation are: (a) Socio-economy and technology condition, (b) Public support, (c) Attitude and available resources by groups, (d) Support from government, (e) Commitment and leadership capability of the executor.

Besides that, the success of the policy influenced by support and involvement from the community. Islamy [8] said that government policy can be more effective if it's undertaken and have positive impacts to the community. Policy implementation can be seen in wide definition, is law administration tools where actors, organizations, procedures and techniques corporate together to implement the policy in order to reach desirable purposes or impacts [5]. The tendencies of intensity from the executors will influence the success of policy achievement [5]. The policy made from the government is not only aiming and undertaken to government

only, but aiming and it should be undertaken to the community within the surroundings environment.

Van Meter Han and Van Horn in Rusli [6] mentions that there are factors that will influence the policy implementation, which are 1. Standard and policy targets. 2. Resources. 3. Communication between the executor's institutions. 4. The executor's institution character. 5. Social environment, economy, and politic. 6. The attitude of the executor.

Based on theoretical concepts above, Nugroho [9] also said that there are 6 (six) achievement measurement indicators toward the policy. Six achievement measurement indicators in the policy are (1) standard and policy targets, (2) resources, (3) the character of executor's organization, (4) The communication and activities between the executors, (5) the attitude of the executor and (6) external environment. Policy implementation model by Van Meter and Van Horn can answer the questions and corresponding to the research character that will be undertake. This is caused by Van Meter and Van Horn model discussed lot of aspects and policy implementation, within this research, the writer hope it will give big image which is more comprehensive regarding strategy of implementation of domestic waste water management policy in Bandung City.

B. Base Concept Domestic Waste Water Management

Base concept of waste water is that every water that have been used will be waste water. This waste water will be used as needs and daily activities which generally have been contaminated by chemicals and waste. Waste water can cause the emerge of diseases and pollutions towards environment. Therefore waste water is obligated to be managed.

Bandung Local Government is responsible in managing waste water by choosing Tirtawening Regional Water Company (PDAM) as an executor institution in managing waste water in Bandung city. However, the management of waste water, Bandung Local Government have decided the limitation of waste water scope itself, which is domestic waste water is not included to industrial waste water or rainfall water. This is written in Mayor Regulation No. 270 on 2013 Chapter 1 defined regulation, article 1 point 12, which "Waste water is waste water from households and/or domestic, waste water from industry and rainfall are not included". There is also domestic waste water management in Bandung city regulated in Local Government Regulation in Bandung city No.15 of 2009 on Tirtawening Regional Water Company (PDAM) in Bandung city that Tirtawening Regional Water Company (PDAM) beside as the executor the drink water service also managing waste water in Bandung city.

III. RESEARCH METHODOLOGY

In this research, there is methodology to use for this research which using combination approach (*mixed-methods*) and concurrent embedded strategy, this research is collaborating qualitative and quantitative approach to use together in order to support the research that will be examined.

Choosing qualitative approach is considered to dig and collect information and facts from informants following by how the informants themselves collecting data which are based on empirical facts, aligned with their languages and perspective. Meanwhile, quantitative approach used and is considered that this research should conclude in brief and simple instrument, but detailed regarding the policy implementation of waste water management in Bandung city that will be measurement tools. Therefore, this mixed methods, two kinds of research methodology used and will answer the purpose of this research which have been formulated in this research.

The method of collecting data used through qualitative study which are observation, interview, and documentation also focus group discussion, not to mention also used quantitative data that will be undertaken by collecting it from chosen respondent.

IV. RESULTS

Based on the result of policy implementation in domestic waste water management in Tirtawening Regional Water Company (PDAM) Bandung city, from documents studying, observation and interview have shown that waste water management system need to be developed, this is referring to the collected data that demand and needs from community in Bandung city especially in waste water service is high this is referring to services in industry and urban society which needs governance in waste water management to support vision and Bandung city to become healthy and comfortable city, that is why it is needed a good waste water management. Meanwhile from the growth aspect is a today waste water management by Tirtawening Regional Water Company (PDAM) Bandung City have not met the optimal reach in growth company aspect. This is aligned to theories from Ramkuti [10] which is *Matriks Portofolio* from Boston Consulting Group. Jauch and Glueck [11] said it is included to *cash cow* category and is a product or division with low growth, but the market share is high. Because it is high, they have low financial and resulting cash.

Therefore, if it's seen from the result of this research and based on market growth theory, it is concluded that the domestic waste water management in Tirtawening Regional Water Company (PDAM) is not effective. Then, what company need is finding how the opportunity can be utilized in better way to increase the growth of market share and income of domestic waste water management itself. To support that, needs institutional adjustment and collaborated with any stakeholders from any area within Bandung city and its surroundings to support domestic waste water management in Tirtawening Regional Water Company (PDAM).

Based on questionnaires results and supported from interviews results in this research, it can be interpret that generally there are 3 (three) aspects that will be attention to enhance the domestic waste water management in Tirtawening Regional Water Company (PDAM), which are (1) Resources aspect with percentage 62,5 percent, (2). Executor aspect with

percentage 68 percent, (3) Disposition aspect/executor aspect with percentage 68 percent and these are special attentions for domestic waste water management in Bandung city. Based on the results, it can be elaborated that there are factors that need to be complement therefore there'll be effectivity in domestic waste water management in Tirtawening Regional Water Company (PDAM), which is collaboration aspect. Without collaboration in waste water management, it will not be working effectively. Hence it is a main key for the implementation of waste water management to include collaboration concept.

Based on SWOT analysis, from the calculation from IFAS (Internal Factor Analysis Strategy) and EFAS (External Factor Analysis Strategy) and SFAS (Summary Factor Analysis Strategy), therefore the result of SWOT analysis is toward the internal and external condition of waste water service division in Tirtawening Regional Water Company (PDAM), it's position is in quadrant II that shown the company position is on the condition with big internal power, but there is a big threat from the opponents, hence it needs strategy to undertake which is diversification strategy.

Therefore, company is suggested to use diversification strategy, this strategy can be used through concentric horizontal strategy. This is kind of strategy to increase new products which still related from the technology that used, same facility, and same market network with the recent products. Based on the research that domestic waste water management have high opportunity or market demand meanwhile the growth is low, however it is supported by stable income. The main thing is undertaken concentric horizontal diversification strategy with institutional development, through strengthening the institution for high growth and able to catch the high opportunity or demand in domestic waste water management in Bandung city. The advantages of the diversification in the company are: (1). Increasing profitability and competitiveness. (2). For the company to have any kind of products will prevent opponents to monopolize the market. (3). There will be risks like in daily activities, and this is a threat for the company. With this diversification, it will directly decrease the risks for the future. (4). If one unit suffers from disadvantage, or almost go bankrupt, there is still another unit to survive.

Furthermore, undertaken SWOT analysis (Threats, Opportunities Weakness and Strengths) was to analyze alternative strategy. From strategy formulated that are resulted from SWOT analysis for waste water management, therefore strategy point of waste water management have resulted strategy. Based on the strategy of waste water management policy is the strategy to enhance the management of waste water in Tirtawening Regional Water Company (PDAM) Bandung city more effective and referring to 6 (six) aspects that have been explained above. Based on those elements, it can be concluded that the aspects need attention are: (1) Institutional aspect, (2) Regulation aspect, (3) Collaboration aspect, (4) Income aspect, (5) Servicing aspect, (6) Performance aspect.

There is also main attention to enhance domestic waste water management in Tirtawening Regional Water Company (PDAM) Bandung city which is institutional development aspect. This is referring to the result of FGD that Mr. Subekti as the President of PD PAL DKI Jakarta informed that institutional aspect need to be elaborate further. It need focus to the institutional aspect to make strategy in this research, it was also informed by Mrs. Triani as supervisory council in Tirtawening Regional Water Company (PDAM) Bandung city. Based on FGD result, there are suggestions that institutional aspect is the key aspect to create domestic waste water management in Bandung city.

Based on the result of the implementation of domestic waste water management policy in Tirtawening Regional Water Company (PDAM) in Bandung city is not effective due to high demand in market following by low growth, however the income still stable, based on the point of institutional development strategy it needs effort for the strategy of domestic waste water management in Tirtawening Regional Water Company (PDAM) Bandung city work effectively, is that need the effort of institutional independence to manage domestic waste water in Bandung city.

V. CONCLUSIONS AND SUGGESTIONS

Based on the result from the research and the discussion in Chapter IV, it can be concluded that: (1). The implementation of domestic waste water management in Tirtawening Regional Water Company (PDAM) in Bandung city is not effective yet, based on the low growth and high opportunity to manage domestic waste water in Bandung city. There are several attentions that need to focus on it, which are (a) The less involvement from Tirtawening Regional Water Company (PDAM) in cooperation with other institution or office for the program of managing domestic waste water. (b) Capacity and capability from the human resources in Tirtawening Regional Water Company (PDAM) in Bandung city is still limited from the knowledge and competency, (c) Empowerment and involvement of the community to manage domestic waste water still needs to be increased, (d) Financial support for the domestic waste water operational cost in Tirtawening Regional Water Company (PDAM) still low. (2). Factors that will influence the inefficiency of the implementation of domestic waste water management policy in Bandung city are (a) Resources, (b) The executors and (c) Disposition/Attitude of the executors, that needs to be enhanced. (3). The result of this research is that in SWOT analysis the company is in quadrant II which explained that this position is having a big internal power but there are big threats from the opponents. Therefore strategy that needs to be undertaken is through horizontal diversification strategy which through institutional development based on pillars of good culture in organization,

transglobal leadership and good organization structure and purposeful, also undertaken collaboration with other stakeholders.

From the conclusion that are elaborated above, researcher also suggested these suggestions below, which are:

- Increasing the utility of processed result to use as plan fertilizer and linkage market.
- District government of Bandung city is being urged to consider the establishment of domestic waste water municipally owned company in order to fasten the domestic waste water management in Bandung city.
- Increasing the human resources quality and the officer of domestic waste water in Tirtawening Regional Water Company (PDAM) in Bandung city which is competent and capable.
- Enhancing the facility and infrastructure of domestic waste water, especially in On Site Domestic Waste Water System Management (SPALD-S) through SIG and digital technology aligned with nowadays technology advancement and collaboration with the non-state stool tank manager.

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