



Tangerang City Government Collaboration in Household B3-Specific Waste Management

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ABSTRACT

The research aims to provide an overall picture that explains the collaborative process of the Tangerang City government in the management of household B3-specific waste. In addition to inorganic and organic waste, there are other types of waste generated from households, namely waste containing Toxic and Hazardous Materials (B3). However, in Tangerang City, there are not many people who do segregation for this specific type of B3 waste. Household specific B3 waste has been regulated in Government Regulation No. 81 of 2012 which regulates the Management of Household Waste and Household-like Waste and PP No. 27 of 2020 which regulates the management of Specific Waste which is far more diverse and complex. Included in specific types of B3 household waste include hair spray, air freshener, clothes bleach, insect repellent, bathroom cleaners, electronic goods, etc. Garbage that is mixed and contains hazardous substances will seep into the earth and become a cause of environmental pollution. Meanwhile, harmful substances in the form of gases will be released into the air and cause depletion of the ozone layer. For the management of specific B3 waste, households need separate methods that require a lot of money. As a solutive step for household-specific B3 waste management, the Tangerang City Government is collaborating with the private sector to address household-specific B3 waste management problems in Tangerang City. This research uses qualitative research methods and in-depth interviews, observation, and documentation as well as data analysis using the concept of collaborative governance by Ansell and Gash (2008) with an emphasis on process aspects in collaborative government governance. From the results of the analysis that has been carried out in this study, this form of collaboration in the management of B3-specific waste is not optimal. There are several recommendations that are concluded for optimizing collaboration in the future.



INTRODUCTION

Waste is one of the problems in urban areas that will continue to be faced, if it is not handled immediately it will have a negative impact on life (Abubakar et al. 2022). The same thing was conveyed by Legi (2022), the waste problem is a long-standing problem in almost every country. This waste problem is not only a burden and responsibility for the government but it is the responsibility of all of us. Community involvement in waste management. In household activities in every city, along with the increasing needs of the community, the production of waste will also increase, including waste containing Toxic Hazardous Materials or better known as B3 which has very dangerous characteristics such as toxic, corrosive, flammable and explosive, it can be a threat to the community and the environment around the landfill. People generally dispose of this type of waste mixed with household domestic waste. Disposal of B3 waste in settlements is not that much, but because the population continues to increase and there is no special treatment, it will pose a serious hazard to the environment and human health.

According to Irwan Ridwan Rahim (2015) the government should make efforts to provide special facilities for B3 waste management within the community and provide facilities for transporting B3 waste. In addition to providing facilities for specific household B3 waste containers, it is hoped that the government will also provide education so that the public will have a better understanding of sorting household B3-specific waste. There is still a lack of public knowledge about specific household B3 waste that can be found in everyday life according to research conducted by Purba (2019) where the people in Tanjung Sateko Village do not know the specific types of household B3 waste and have the potential to environmental pollution. This can happen because the government's efforts have not been maximized in providing understanding to the public regarding specific household B3 waste.

The environmental damage that can be caused by the presence of B3-specific waste can directly harm the community. Communities tend to choose practical methods in handling B3-specific waste (Putri, Amir, and Hidayati 2022). This was revealed by Iswanto (2016) the ways of the people of Sleman, especially those who live in rural areas or in areas that have not received services in dealing with specific B3 waste, are burning, throwing it into water bodies, yards, vacant lands. or illegal garbage dumps in the neighborhood around the residence. Of course this will be very harmful to the environment and society if it is carried out continuously without any handling from the local government.

Local governments have problems handling B3-specific waste due to limited resources (Chung and Lo 2008). This encourages the government to collaborate both with environmentalists, with private parties engaged in the environmental sector and academics studying the environment and specific B3 waste. Tangerang City, an integral component of the Jakarta metropolitan area, confronts various urban challenges (Sekarsari and Dwiatmoko 2022). The waste problem is a very important issue because of limited land and a population that is increasing every year. The Tangerang City government is facing difficulties in handling household hazardous waste due to various challenges. These challenges include a shortage of land for waste processing (Putri and Oktavia 2023), political pressures in managing domestic wastewater (Eliadi 2023), and a lack of public understanding about the impact of waste (Bachtiar et al. 2022). Unfortunately, the government's efforts to make people aware of the dangers of household hazardous waste haven't shown significant results, as shown by data from the Tangerang City Environmental Service.

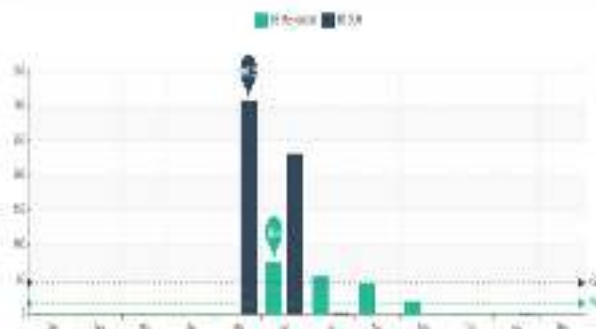


Figure B3-specific waste in Tangerang City

From the picture above it can be seen that public awareness to separate household B3 waste from household domestic waste is still lacking. The largest percentage was contributed by employees of the Environmental Service who had been educated about the dangers of household B3 waste and its impact on the environment. According to Ulimaz et al., (2021) some people have sorted out their waste, but they still don't know what types are included in B3 waste. The same thing was also found in the community in Tangerang City.

The efforts made by the Tangerang City government in educating the public about the dangers of household B3 waste are quite diverse. By holding a webinar that presents environmentalists and experts who explain the dangers of household B3. Periodic outreach conducted by environmental officers through waste banks. Outreach to the community in the Car Free Day event. Efforts through the media have also been made to educate the public about household B3 waste. The efforts of the Tangerang city government to educate the public are in line with research from Sidik, Konety, and Aditiany (2018) which says increasing understanding is carried out with lecture and discussion techniques with material descriptions regarding the types, hazards, and characteristics of B3 waste, management, and infrastructure supporting. The Tangerang City Government has a household B3 waste supporting facility in the form of a drop box labeled as a household B3 waste category. There are also supporting facilities in the form of Temporary B3 Waste Storage Sites (TPSSS-B3) which are used to accommodate household B3 waste from the community.

According to Prasetyaningrum, Joko, and Dewanti (2017) some people have sorted out their waste, but still do not know what types are included in B3 waste. The government is seeking other alternatives in processing household B3 waste by involving the private sector in managing household B3 waste. This effort also encourages the community to be actively involved in selecting household B3 waste. By giving useful rewards for every household B3 waste alms carried out by the community.

THEORY REVIEW

The successful processing of household-specific B3 waste requires good planning and responsible management, as highlighted in several studies. Noviyanti (2020) emphasizes the need for proper planning, organizing, and control in B3 waste management, with a focus on training and facility fulfillment. Putri (2022) underscores the importance of community education and awareness in managing household B3 waste. Herman (2023) discusses the legal regulations governing B3 waste management in hospitals, noting the need for greater awareness and commitment from hospital leadership. Abidin (2022) further emphasizes the legal liability of companies in B3 waste management, underscoring the importance of adherence to operational standards and environmental laws. These studies collectively underscore the importance of proactive planning, community education, legal compliance, and responsible management in the successful processing of household-specific B3 waste.

So that tourism management goes well, it requires the involvement of stakeholders in a collaboration such as the government, the private sector, educational institutions and the local community. Collaboration between stakeholders is highly expected to find solutions to complex waste management problems that cannot



be solved individually or partly institutionally. The concept of collaborative governance is one concept that can be used to support the development of a sustainable tourism sector. Collaborative Governance Governance has become a key concept in various studies such as public management and economic sector coordination, private associations, corporate governance and good governance (Peters and Pierre 2000).

In the context of household B3 specific waste management, governance includes the character and arrangement of a series of processes, rules and institutions in making policies up to their implementation to achieve goals and solve common problems. Among the various perspectives covered by studies on governance, collaborative governance emerges as an approach to managing public policies or programs. This approach connects multiple stakeholders with public bodies through Shared spaces that encourage participation and consensus in decision-making (Ansell and Gash 2008). Governance is defined as the decision-making structure and management of public policies that engage people constructively across boundaries of public institutions, levels of government, and/or public, private, and civic spaces to carry out public objectives that would otherwise be unattainable. This definition includes partnerships between the state, the private sector, civil society, and society. The collaborative governance process is divided into several parts (Ansell and Gash 2008). These parts are as follows:

a. Face-to-face dialogue

In collaborative governance, relationships are built through face-to-face dialogue between actors. This direct dialogue is needed to identify opportunities for mutual benefit. This is also an effort to build a trust in uniting the programs that have been set together. This is very necessary in handling household B3 waste in Tangerang City. Where it is hoped that the goals of collaboration can be achieved. This is in line with research conducted by Rahayu and Dewi (2017) where actors and stakeholders involved in traffic ethics cultivating activities for students in the City of Yogyakarta carry out coordination and regular meetings. Coordination and regular meetings are the application of face-to-face dialogue in the collaboration factor.

b. Build trust (Trust building)

Building trust is a different stage of dialogue and negotiation on substantive matters. In terms of collaborative governance, not only dealing with face-to-face dialogue but also building trust between actors. Building trust is a form of mutual understanding between parties who have an interest in order to form a commitment to carry out collaboration. Building this trust can be described through research conducted by Nopriyono and Suswanta (2019) where trust building in collaborative governance is established between actors in a simple way, namely by the existence of binding rules previously in the form of Grant Agreement Texts which have discussed the duties, rights, obligations and sanctions that bind each actor in the process. collaboration.

c. The process of achieving commitment (Commitment to process)

The process of achieving commitment means giving confidence that a process with good intentions for mutual benefit is the best way to produce the desired policy. Commitment to the established process defines how clear, fair and transparent a procedure is. Good commitment is established between interest actors depending on the trust in other actors to respect the perspectives and interests of other actors which creates a sense of mutual responsibility in the processes involved.

d. Shared understanding

This shared understanding can mean an agreement in defining a problem so that it can be overcome. In other words, this shared understanding is a shared mission, common intentions, common goals, shared vision, shared ideology, clear goals or core alignment.

e. Intermediate outcome

Part of the collaboration process in the temporary results stage is what is obtained according to collaborative activities in the initial stages, it must show outputs or results that can be returned or used as capital in collaborative activities in the next phase, so that collaborative activities can run continuously and not stop



POLICY REVIEW

a. Undang-Undang Number 18 Of 2008

Law Number 18 of 2008 concerning Waste Management mandates that in every management of specific types of waste, efforts are made to reduce or limit the stages, except for types of waste that arise as a result of disasters. Likewise for the reuse stage in order to reduce environmental burden and efficiency in the utilization of natural resources it is also encouraged to do so, but for the type of Waste Containing B3 and/or Waste Containing B3 Waste it needs to be carried out separately in accordance with the provisions of laws and regulations. Specific waste or waste including Hazardous and Toxic Waste, hereinafter abbreviated as B3, are substances, energy and/or other components which due to their nature, concentration and/or amount, either directly or indirectly, can pollute and/or damage the environment and/or endanger the environment, health, and the survival of humans and other living things. Waste Containing B3 and/or Waste Containing B3 Waste, for example packaging for insecticides, oil packaging, medicine packaging, expired medicines, electrical equipment, household electronic and electrical equipment. Electronic equipment waste or "electronic goods that are no longer used" are electronic and/or electrical goods that are usually operated by batteries or electricity that are no longer used or discarded by their final owner.

b. Presidential Regulation Number 27 of 2020

The government has stipulated PP No. 27 of 2020 which regulates the management of household B3 waste. The matters stipulated in the regulation are related to systematic, sustainable household B3-specific waste management which includes reduction and handling. Suggestions for storing household B3 waste are also regulated in the regulation. This Temporary Specific B3 Waste Storage Site (TPSSSB3) functions as a temporary storage place for household B3 waste before it is transported to the licensed B3 waste collector, manager and final landfill. The Central Government also conducts outreach to the public regarding this regulation. PP 27 of 2020 concerning Specific Waste Management is an implementing regulation for Law 18 of 2008 concerning Waste Management. Garbage is the residue of human daily activities and/or natural processes in solid form. Specific waste is waste which due to its nature, concentration and/or volume requires special management. PP 27 of 2020 concerning Specific Waste Management implements Article 23 paragraph (2) of Law 18 of 2008 concerning Waste Management. Specific waste is different from the types of household waste and similar waste. Household waste, whose management has been regulated in Government Regulation Number 81 of 2012 concerning Management of Household Waste and Household-like Waste, in Government Regulation Number 27 of 2020 concerning Specific Waste Management, Management arrangements Specific Trash is much more complex and multifaceted.

METHODS

In this study, qualitatively the collaboration was examined by several techniques used, namely secondary data collection, key informant interviews, semi-structured interviews (Ruggiano and Perry 2019). The primary data used includes interviews with representatives of the Environmental Service, representatives of household B3 waste managers/officers, socialization assistance officers, representatives of environmental conservation activists (Benua Lestari Indonesia), and representatives of the community who play an active role in sorting and collecting B3 waste. household. Secondary data collection is carried out by collecting published data and information from various sources such as books, documents, publications, and other supporting data sources (Wagh 2021). In addition, it was also obtained through a literature review by collecting data from the internet at various institutions/agencies related to household B3 waste. The analytical method was carried out using a qualitative descriptive method, namely by describing the circumstances and phenomena that occurred as well as the problems for further analysis and in-depth assessment related to research that was carried out logically, systematically and consistently. In using the method with a qualitative approach it can also explain the phenomena that exist in the field.



RESULTS AND DISCUSSION



Figure The process of transporting household specific B3 waste

Regarding the specific household waste management system in Tangerang City, the process flow is as follows: Household specific B3 waste is collected by the community at one point. B3 specific waste can be in the form of e-waste, spray cans, etc. Communities can work together with waste banks in their neighborhoods, but household B3-specific waste does not have a sale value in the Waste Bank transaction and will be included in the Garbage Alms category. The public can also contact the Environmental Service regarding the transport of specific B3 household waste by contacting the call center that has been provided. Then it will be transported by officers to TPSSS-B3 which is located in the Rawa Kucing TPA Area, Tangerang City. The agency will contact the private sector to transport specific B3 household waste that has been collected in the TPSSS-B3.

a. Face-to-face dialogue

In this case the Tangerang City government applies this face-to-face method by holding assistance and outreach activities in the management of Tangerang City B3 specific waste through waste banks. This encourages people to understand more about specific B3 waste and the risks it poses. As well as inviting the public to give alms to household B3 specific waste. In accordance with the statement of informant 1 that with this socialization it increases their understanding of specific B3 waste

b. Build trust (Trust building)

Building trust for each actor in collaborating is very important. An important step taken by the Tangerang City Government is to build public trust that B3-specific waste will be handled properly and will not harm the environment. In addition to building trust with the community, the Tangerang city government is also building trust with the private sector, namely PT TLI, in handling e-waste waste. This process of collaboration with the private sector also encourages the government to develop e-government in accordance with Sri et al., (2019) e-government will support development in an area

c. Shared understanding

At this stage the Tangerang City government provides a shared understanding that with this collaboration the private sector can benefit in the form of B3 specific waste management, the community gains a sense of security from the threat of specific B3 waste hazards while the Tangerang City government itself can fulfill its obligations regarding household B3 specific waste management. Gusmiara et al., (2021) Said that this process will affect the overall collaboration.

d. Intermediate outcome

The results of this collaboration have not been achieved optimally. Because people's enthusiasm has not increased and there tends to be no increase regarding the household B3-specific alms charity movement. Communities tend to handle B3 waste in traditional ways that can be harmful to the environment. While the hopes of the private sector for this movement are quite large, these things are constrained by the lack of outreach to the community.



CONCLUSION

Based on the results of the research that has been described, it can be concluded that the implementation of collaborative governance that occurs between the Tangerang City Environmental Service, with several points as follows: First, Stakeholder involvement in collaborative household B3 waste management activities includes 4 stakeholder actors, namely the Tangerang City Environmental Service, the Benua Lestari Indonesia Foundation, the Tangerang City Garbage Bank and PT. Teknotama Lingkungan Internusa (TLI) as a private actor. Second, while in the implementation of collaborative governance that occurs such as Starting conditions, Facilitative leadership, Institutional design and Collaborative Processes up to the Interim results stage obtained in the collaboration process in household B3 waste management in Tangerang City, there is already a partnership. Even though the implementation of the collaboration as a whole can be said to be quite good and to obtain good results as well, from the perspective of Collaborative governance the implementation of this collaboration is still not perfect because there is no dominant involvement of the 3 main collaboration actors namely Government, Community and Private. Because in the research conducted the involvement of private actors in this case PT. Teknotama Lingkungan Internusa (TLI) in the collaboration process was only involved in the E-waste processing stage, while the overall involvement of PT. Internusa Environmental Teknotama (TLI) in the process of collaboration is still lacking.

SUGGESTION

There are several things that the author would like to suggest in this research, especially the implementation of collaborative governance in the household B3 waste management process between the Environmental Service, third parties and the Waste Bank: First, increasing the quality and quantity of human resources, especially the involvement of the people of Tangerang City by conducting training related to the implementation of household B3 waste management as a solution to poverty alleviation and waste problems in Tangerang City. Second, improve the collaboration process by involving other important actors in the collaboration process such as Media and Academics. Third, increasing the role and involvement of private actors in the collaboration process, so that in addition to being expected to support the implementation of collaborative governance more optimally, the involvement of private actors in the collaboration process is also expected to be able to create innovations in the field of waste management that are beneficial to society and the environment.

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