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Effectiveness of Waste Management in Cirebon City ... (Rofii & Andri Winjaya Laksana)

# Effectiveness of Waste Management in Cirebon City Based on Positive Law

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**Abstract.** The waste problem occurs in Cirebon City. Cirebon City is a very large area with an administrative area of 39.48 km² with a population of 354,679 people. In Cirebon City, piles of waste cause many problems, besides disturbing the view and environment, they also disturb the comfort of the residents of Cirebon City. This study aims to determine the Situation Analysis of Waste Problems in Cirebon City and its Management Policy. In this study, the approach method used is: a normative juridical approach (normative legal research method). Library legal research is conducted by examining library materials or secondary data alone. The research specification used is Analytical Descriptive, namely an effort to analyze and explain legal problems related to objects with a comprehensive and systematic description of all matters related to the Analysis of the Situation of Waste Problems in Cirebon City and its Management Policy. Overall, the waste management policy implemented by the Cirebon City Government demonstrates a holistic approach: from regulatory aspects and infrastructure development to community participation and private sector involvement. The effectiveness of waste management policies in Cirebon City is still developing and not yet fully optimized. Although policies are in place and programs have been implemented, implementation on the ground faces several challenges.

Keywords: Cirebon; Law Enforcement; Waste.

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#### 1. Introduction

In a state based on the rule of law, law is the main pillar driving the foundations of social, national, and state life. One of the main characteristics of a state based on the rule of law lies in its tendency to assess the actions of its citizens based on legal regulations. This means that a state based on the rule of law always regulates every action and behavior of its citizens based on applicable laws. This is done to create, maintain, and defend peaceful social life in accordance with what is mandated in Pancasila and the 1945 Constitution, namely that every citizen has the right to feel safe and free from all forms of crime. Globalization brings relations between countries closer and brings positive and negative impacts for a country. One of the consequences of globalization is the development of industrial centers that can have a negative impact on the environment if not handled properly. One of the environmental problems that often becomes the focus of society today is the problem of waste. Waste is defined as an object that is not used or wanted and must be disposed of, which is produced from human activities. Due to the imbalance between existing resources and natural conditions, so that sanitation managers have not been able to handle all the waste produced, therefore the volume of waste generated is increasing.1

The increase in waste volume that is not balanced with environmentally friendly management will cause environmental damage and pollution. Economically, the waste problem is also related to the issue of waste levies. A common problem is that the collected levies are very limited and not commensurate with operational costs. This is because the public is still not aware of paying waste levies. The waste problem occurs in Cirebon City. Cirebon City is a very large area with an administrative area of 39.48 km² and a population of 354,679 people. In Cirebon City, piles of waste cause many problems, not only disturbing the view and the environment but also disrupting the comfort of Cirebon City residents. The ratio between the amount of waste produced and the amount of waste processed is not balanced. Cirebon City is a developed region with quite rapid development, including in industry and trade. This has led to an increasing amount of waste generated by the community.²

<sup>&</sup>lt;sup>1</sup> Adamı Chazawi, (2014), Percobaan dan Penyertaan Pelajaran Hukum Pidana, Jakarta : Rajawali Press

<sup>&</sup>lt;sup>2</sup> Al-Qur'an Surat Al-Baqarah: 222. Lihat juga: Shihab, Quraish. Tafsir Al-Mishbah. Jakarta: Lentera Hati; 2006.

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Cirebon City produces approximately 350 tons of waste every day. Some of this waste comes from the border area with Cirebon Regency, which also contributes to the burden on the city's waste management facilities. The government established a Regional Regulation (Perda) of Cirebon City that regulates waste management, namely Perda Number 4 of 2018. This Perda was passed on August 31, 2018 and came into effect on September 5, 2018, replacing the previous Perda Number 2 of 2002 concerning the Implementation of Cleanliness in Cirebon City which in reality is not in line with what is expected because there is still a lot of waste in Cirebon City that is piling up and is not being paid attention to by the Environmental Service which is the leading sector based on the Regulation of the Regent of Cirebon Regency Number 74 of 2016 concerning the Functions, Main Duties and Work Procedures of the Environmental Service. The existence of garbage piling up in the Sidaresmi Temporary Shelter (TPS) certainly does not provide comfort for local residents.<sup>3</sup>

The limited means of transporting waste and the location of the Final Waste Disposal Site (TPAS) which is far from the TPS location is also a problem because the process of transporting waste takes a longer time to be disposed of and processed to the TPA. The available budget for waste management is not able to meet the needs of existing facilities and infrastructure, coupled with the lack of cleaning staff. With the background described above, the author is interested in writing an individual working paper entitled "EFFECTIVENESS OF WASTE MANAGEMENT IN CIREBON CITY BASED ON POSITIVE LAW".<sup>4</sup>

# 2. Research Methods

Research methods are essentially a function of the research problem and objectives. Therefore, discussions of research methods cannot be separated from, and must always be closely related to, the research problem and objectives. The methods used in this research include the approach, research specifications, data sources and types, data collection techniques, and data analysis techniques.<sup>5</sup>

<sup>&</sup>lt;sup>3</sup> Apeldoorn, L.J. van. Inleiding tot de Studie van het Nederlandse Recht. Zwolle: W.E.J. Tjeenk Willink; 1995.

<sup>&</sup>lt;sup>4</sup> Arief, Barda Nawawi. Beberapa Aspek Kebijakan Penegakan dan Pengembangan Hukum Pidana. Bandung: Citra Aditya Bakti; 1998.

<sup>&</sup>lt;sup>5</sup> Soekanto, Soerjono dan Sri Mahmudji. Penelitian Hukum Normatif: Suatu Tinjauan Singkat. Jakarta: Raja Grafindo Persada; 2003.

#### 3. Results and Discussion

# **3.1.** Policies Implemented by the Cirebon City Government in Addressing Waste Problems

The waste problem is one of the crucial issues faced by major cities in Indonesia, including Cirebon. Increasing population, public consumption, and industrial and trade activities cause the volume of waste to increase significantly every year. Cirebon, as a coastal city that serves as a trading hub between regions in West Java, faces significant challenges in sustainable and environmentally friendly waste management. Data from the Cirebon City Environmental Agency (DLH) states that waste production in this region reaches around 300 tons per day. Of this amount, around 60% is organic waste, while the rest is inorganic waste and residues that are difficult to decompose. The main problem is not only the high volume of waste, but also limited management facilities and low public awareness in sorting waste at its source.<sup>6</sup>

# Legal Basis and Strategic Policy

As a legal basis for waste management, the Cirebon City Government issued Cirebon City Regional Regulation (Perda) Number 4 of 2018 concerning Waste Management. This regulation emphasizes the importance of upstream to downstream waste management, including the active participation of the community, the business world, and local governments. This regulation also regulates sanctions for violations such as littering, as well as the obligation to sort waste at its source. Furthermore, to align with national policies, the city government issued Cirebon Mayor Regulation Number 6 of 2019 concerning Regional Policies and Strategies (Jakstrada) for the Management of Household Waste and Household-Similar Waste. This Perwali is a derivative of Presidential Regulation Number 97 of 2017 concerning Jakstranas, which aims to achieve a 30% waste reduction target and 70% waste management by 2025.<sup>7</sup>

One concrete form of waste management policy implementation in Cirebon City is the construction and development of infrastructure such as the Reduce, Reuse, Recycle Waste Management Site (TPS 3R). TPS 3R is a facility that enables initial waste management at the community level before being taken to the TPA (Final Disposal Site). This TPS 3R has been built in several sub-districts, one of which is in Kalijaga, Harjamukti District. In addition to TPS 3R, Cirebon City also inaugurated a Recycling Center (PDU) in 2021. This PDU functions to recycle plastic, paper, and

<sup>&</sup>lt;sup>6</sup> Poernomo, Bambang. Hukum Pidana Kumpulan Ilmiah. Jakarta: Bina Aksara; 1982.

<sup>&</sup>lt;sup>7</sup> Prasetyo, Teguh. Kriminalisasi Dalam Hukum Pidana. Bandung: Nusa Media; 2010.

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metal waste, as well as support micro-businesses engaged in waste management.<sup>8</sup> The construction of this PDU was funded by the Ministry of Environment and Forestry (KLHK) as a form of support for the green city program.

The Kopiluhur Landfill, the main final disposal site in Cirebon City, has become the focus of development by the local Environmental Agency (DLH). Optimization is carried out through the arrangement of disposal zones, reducing the disposal load, and improving the operation of heavy equipment and the leachate (wastewater) management system. This step aims to prevent the landfill from quickly becoming overcapacity, which can trigger environmental pollution. The government has also begun implementing a sanitary landfill approach to landfill management, replacing the open dumping method that has been used by most areas. This is part of the Cirebon City Government's commitment to the Minister of Environment and Forestry Regulation Number 10 of 2012 concerning Technical Guidelines for Waste Management in Landfills.

One of the main issues in waste management is plastic waste, which is not easily biodegradable and often pollutes water bodies. The Cirebon City Government responded to this by issuing Mayoral Regulation Number 5 of 2022 concerning the Control of Plastic Bag Use. This regulation prohibits the use of single-use plastic bags in shopping centers, modern stores, and traditional markets. In addition to the ban policy, the government also encourages the use of environmentally friendly bags such as cloth bags, and provides incentives to businesses that implement a plastic-free policy. This campaign is accompanied by public education through schools and community groups, facilitated by the Environmental Agency (DLH) and the city's education office.

The Cirebon City Government recognizes that waste management cannot be handled solely by the government. Therefore, collaborative policies with community groups and the private sector are continuously being developed. One flagship program is the Waste Bank, which facilitates residents to save waste and derive economic value from inorganic waste. Waste Banks in Cirebon are spread across various neighborhood units (RW) and are managed independently by residents. The government provides support in the form of training, equipment, and incentives. In fact, the waste banks are now connected to digital platforms to expand the network of micro-scale waste management. This supports the concept of a circular economy at the local level.

To increase the effectiveness of its policies, the Cirebon City Government is also actively conducting public education and campaigns through the Adiwiyata School program and the Environmental Love Movement. This program targets students,

<sup>&</sup>lt;sup>8</sup> Raharjo, Satjipto. Masalah Penegakan Hukum: Suatu Tinjauan Sosiologis. Bandung: Sinar Baru; 1983.

housewives, and MSMEs to raise awareness of the importance of properly sorting and managing waste. Furthermore, the City Government is collaborating with community and religious leaders to convey environmental messages in religious and community activities. This aligns with the participatory approach emphasized in Law Number 18 of 2008 concerning Waste Management.

#### SUPERVISION AND LAW ENFORCEMENT

The Cirebon City Government also places serious emphasis on oversight and law enforcement. Through the Public Order Agency (Satpol PP), the government conducts routine patrols and sting operations against residents or businesses found littering. Based on Regional Regulation No. 4 of 2018, violations of waste management regulations can result in sanctions ranging from warnings, administrative fines, to minor criminal penalties. This aims to create a deterrent effect and improve public discipline. The city government also provides a public complaints service through a digital application to report violations.

Waste management has become a priority in the Cirebon City Medium-Term Development Plan (RPJMD) for 2025–2029. This was emphasized by the Chairman of the Cirebon City Council (DPRD) during the RPJMD discussion, which highlighted the problems of waste accumulation, illegal dumping, and limited collection fleets. The integration of waste management into the medium-term planning document demonstrates that the government views this issue not merely as a technical issue but as part of sustainable development. Increased infrastructure spending, human resource training, and cross-sector collaboration are also projected in the latest RPJMD.

Overall, the waste management policy implemented by the Cirebon City Government demonstrates a holistic approach: from regulatory aspects and infrastructure development to community participation and private sector involvement. While many challenges remain, particularly in terms of public awareness and operational funding, the strategic steps taken provide a strong foundation for sustainable waste management. The next steps include strengthening oversight, increasing human resource capacity, and developing innovative waste management technologies. Cirebon City is expected to serve as a model for other cities in implementing effective and adaptive environmental policies.<sup>9</sup>

<sup>&</sup>lt;sup>9</sup> Fajar, Mukti ND dan Yulianto Achmad. Dualisme Penelitian Hukum Normatif dan Empiris. Yogyakarta: Pustaka Pelajar; 2010.

# 3.2. How Effective is the Waste Management Policy in Cirebon City?

Waste management is a critical issue in various cities across Indonesia, including Cirebon. The city faces significant waste management challenges, given its population growth and increasing economic activity. The Cirebon City Government has issued policies and regulations related to waste management with the aim of maintaining environmental cleanliness and improving the community's quality of life. However, the effectiveness of these policies needs to be evaluated through empirical research that observes the reality on the ground, including policy implementation, community participation, and outcomes.<sup>10</sup>

According to the theory of public policy effectiveness, a policy is considered effective if the objectives set forth in the policy can be optimally achieved in practice. Robbins (2001) states that effectiveness is a measure of the extent to which a policy produces desired results and has a positive impact on society. Meanwhile, according to Lipsky (1980), in practice, policy effectiveness depends heavily on the role of policy implementers and community participation. The empirical legal approach emphasizes direct observation of policy implementation, interviews with implementers and the community, and analysis of data related to the implementation and impact of the policy. Thus, the effectiveness of waste management can be seen from the following aspects:

- 1. Compliance and the role of local government in policy implementation.
- 2. Active community participation in waste management.
- 3. Technical management and available facilities.
- 4. Environmental and social impacts of waste management.

The conditions and implementation of waste management policies in Cirebon City show that the local government has issued several waste management policies and programs, including:

1. Regional Regulation Number 12 of 2017 concerning Management of Household Waste and Household-Similar Waste in Cirebon City which regulates the obligation to reduce waste, collect, transport, and process waste in an integrated manner.

<sup>&</sup>lt;sup>10</sup> Mertokusumo, Sudikno. Mengenal Hukum: Suatu Pengantar. Yogyakarta: Cahaya Atma Pustaka; 2003.

2. Educational and outreach programs for the community regarding waste sorting and reducing the use of single-use plastics.

3. The Integrated Waste Processing Facility (TPST) has begun operating to manage waste in a more environmentally friendly manner.<sup>11</sup>

However, field research indicates several obstacles to the implementation of this policy. First, there is a lack of coordination between relevant agencies and suboptimal human resources for waste management in the field. Second, public participation remains limited, with some residents not fully aware of or willing to separate their waste at home. Third, waste management facilities are still inadequate to handle the increasing volume of waste each year.<sup>12</sup>

Community Participation and Environmental Awareness: Based on interviews with residents in several sub-districts in Cirebon City, the majority understand the importance of waste management, but there are still obstacles to implementing waste sorting programs at home. Several factors contributing to low participation include:

- 1. Lack of ongoing education and less interesting socialization methods result in people being less motivated.
- 2. There is a perception that waste management is entirely the government's responsibility.
- 3. Limited supporting facilities such as separate trash bins in residential areas.

This indicates that even though the policy is in place, its successful implementation depends heavily on the active participation of the community, which still needs to be improved. Technical waste management in Cirebon City still faces challenges, particularly in collection, transportation, and final processing. The existing waste disposal facilities (TPST) are not yet fully capable of processing waste effectively, resulting in the majority of waste being disposed of in conventional landfills (TPA), which have a negative impact on the environment.<sup>13</sup>

Field research shows that organic and inorganic waste management is not properly separated, thus reducing the efficiency of waste processing and recycling. In addition, the processing technology used is still simple and not environmentally

<sup>&</sup>lt;sup>11</sup> Wahid, Ahmad. Etika Lingkungan dalam Islam. Yogyakarta: Pustaka Pelajar; 2019.

<sup>&</sup>lt;sup>12</sup> Wahyuni. Inovasi Bank Sampah dalam Pengelolaan Sampah Kota. Yogyakarta: Media Pustaka; 2022.

<sup>&</sup>lt;sup>13</sup> Goesniadhie, Kusnu. Perpsektif Moral Penegakan Hukum yang Baik. *Jurnal Hukum*, 2017; Vol. 17, No. 2.

friendly, resulting in pollution and unpleasant odors around the TPST and TPA locations. In terms of impact, the effectiveness of waste management policies in Cirebon City can be measured by the reduction in the volume of waste disposed of at the landfill and the improvement in environmental cleanliness. Empirical data shows that the volume of waste successfully recycled or processed is still relatively small compared to the total daily waste production of the city. Residents around the landfill site often complain about odors and groundwater pollution, which indicates that waste management is not fully effective from an environmental aspect. However, programs to reduce plastic use and educate the public are starting to show results with a decrease in the use of plastic bags in several traditional markets.<sup>14</sup>

Based on empirical research, it can be concluded that the effectiveness of waste management policies in Cirebon City is still developing and not yet fully optimized. Although policies are in place and programs have been implemented, implementation on the ground faces several major obstacles, including:<sup>15</sup>

- 1. Limited human resources and coordination between agencies.
- 2. Community participation is not yet optimal.
- 3. Waste processing facilities and technology are inadequate.
- 4. Environmental impacts are still felt by the community.

To increase the effectiveness of the policy, several recommendations can be put forward:

- 1. Improve capacity and coordination between agencies involved in waste management.
- 2. Conducting more intensive and innovative education to increase public awareness and participation.
- 3. Developing more modern and environmentally friendly waste processing facilities.

<sup>&</sup>lt;sup>14</sup> Sutan Remy Sjahdeini. Kebebasan Berkontrak dan Perlindungan yang Seimbang bagi Para Pihak dalam Perjanjian. Jakarta: Citra Aditya Bakti; 2009.

<sup>&</sup>lt;sup>15</sup> Wahyuni. Inovasi Bank Sampah dalam Pengelolaan Sampah Kota. Yogyakarta: Media Pustaka; 2022.

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4. Conduct periodic monitoring and evaluation of policy implementation for continuous improvement.

With these steps, it is hoped that waste management in Cirebon City will be more effective, the environment will become cleaner, and the quality of life of the community will improve.<sup>16</sup>

#### 4. Conclusion

Overall, the waste management policy implemented by the Cirebon City Government demonstrates a holistic approach: from regulatory aspects and infrastructure development to community participation and private sector involvement. While many challenges remain, particularly in terms of public awareness and operational funding, the strategic steps taken provide a strong foundation for sustainable waste management. Based on empirical research, it can be concluded that the effectiveness of waste management policies in Cirebon City is still developing and not yet fully optimized. Although policies are in place and programs have been implemented, implementation on the ground faces several major obstacles, including: a. Limited human resources and coordination between agencies, b. Community participation is not yet optimal, c. Waste processing facilities and technology are inadequate, d. Environmental impacts are still felt by the community.

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<sup>&</sup>lt;sup>16</sup> Hasanah, F. "Budaya Buang Sampah dan Tantangan Sosial di Perkotaan." Jurnal Sosial dan Budaya, 2023; Vol. 10, No. 1

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