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IMPLEMENTATION OF GOVERNMENT POLICIES IN WASTE MANAGEMENT IN BITU NG CITY

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Abstract

This study aims to analyze the implementation of waste management in Bitung City based on Regional Regulation Number 17 of 2013 and identify the factors that influence it. This study uses a descriptive qualitative approach with the Miles and Huberman interactive analysis model. Data were collected through in-depth interviews, field observations, and documentation. Informants consisted of officials and staff of the Bitung City Environmental Service, village/district officials, cleaning staff/waste collectors, and the community. The results of the study indicate that the implementation of waste management is not optimal in three main indicators: (1) Waste sorting is still very limited because the community is not used to it, supporting facilities are not available, and the perception is that sorted waste will be mixed again during transportation; (2) Waste collection faces problems with the availability of very limited TPS (landfills), the condition of the TPS does not meet the standards of being closed, neat, and odorless, and the collection mechanism is not systematic; (3) Waste transportation is disrupted because the fleet is often damaged due to lack of routine maintenance, reactive (emergency) maintenance, uneven schedules and routes, and the absence of a special fleet for sorted waste so that sorted waste is mixed again. Factors that influence implementation include internal bureaucratic factors (limited personnel, poor fleet maintenance, weak coordination), social and cultural factors (habits of littering, sorting not yet a culture, weak social sanctions), as well as policy and institutional factors (weak enforcement of sanctions, no special institutions at the sub-district level, budget limitations).

Keywords: Policy Implementation, Waste Management, Sorting, Collection, Transportation, Bitung City

INTRODUCTION

Waste management is an integral part of local governance, as it directly relates to public services, public health, and environmental quality. Law Number 18 of 2008 concerning Waste Management affirms that local governments have an obligation to implement comprehensive waste management from upstream to downstream. As a follow-up, the Bitung City Government has established Regional Regulation Number 17 of 2013 concerning Waste Management, which regulates the division of roles and responsibilities between local governments, communities, and businesses. However, as explained in the implementation gap theory, the existence of normatively sound regulations does not always directly correlate with successful implementation in the field. Empirically, Bitung City, with a population of more than 218,000 people, produces an average of around 158 tons of waste per day, with around 120 tons of which are disposed of at the Aertembaga Landfill every day (Data from the Bitung City Environmental Agency for 2025) . This data shows the magnitude of the environmental burden. Waste management must be handled by local governments. The imbalance between the volume of waste produced and that which can be transported and managed is evident from the significant difference between annual waste production and handling. This indicates limited capacity in the waste management system. From the perspective of public service management theory, this condition reflects the low effectiveness and

efficiency of public services in the waste management sector. More specifically, the implementation problems of Bitung City Regional Regulation Number 17 of 2013 concerning Waste Management are clearly visible in three crucial aspects: the regulation of waste disposal hours, the practice of waste sorting at source, and the availability and condition of infrastructure. First, regarding the regulation of waste disposal hours, although Article 8 of the Regional Regulation explicitly mandates that household waste and similar waste must be disposed of between 6:00 PM and 6:00 AM WITA, the reality on the ground shows that public compliance with this provision remains very low. Most people still dispose of waste during the day or evening, citing busy schedules, family events, or the absence of regular collection officers. Worse still, the monitoring and enforcement mechanisms mandated in Articles 33 and 34 of the Regional Regulation—including the formation of an integrated team and the authority to take action on the spot—have never been implemented, thus the policy has lost its coercive power. Second, in terms of waste sorting from the source, Regional Regulation Article 8 and Article 24 paragraph (1) require everyone to sort waste before disposing of it at the TPS and to carry out waste reduction activities through the 3R principle (Reduce, Reuse, Recycle).

However, practice in the field shows that waste sorting has not become a widespread habit; the majority of people still mix all types of waste in one container because they consider sorting impractical, are not used to it, and there are no examples from the surrounding environment. In addition, supporting facilities for waste sorting such as separate trash bins at the household level or sorting partitions at the TPS are almost unavailable, so that the efforts of people who want to sort are in vain because the sorted waste will be mixed back together during the transportation process. Third, in terms of the availability and condition of infrastructure, Regional Regulation Article 23 paragraph (4) mandates regional governments to provide adequate TPS and TPA, including garbage carts in certain places. However, the reality is that the transport fleet, consisting of 9 dump trucks, 9 amrollers, 6 pickup trucks, 11 viars, and 2 boats, often breaks down due to a lack of routine maintenance, disrupting the transport schedule. There are only 4 TPS3R units available at the sub-district level—a number that is significantly disproportionate to the needs, especially in densely populated areas such as Girian and Maesa—and most of the TPS do not meet the criteria of being closed, neat, and odor-free as mandated by Article 29.

The 8-hectare Aertembaga landfill, which can only accommodate 113 tons of the 158 tons of waste produced daily, coupled with difficult road access and a lack of heavy equipment, further exacerbates the situation. Thus, these three problems are poor waste sorting practices at the source, waste collection where there is non-compliance with waste disposal hours, and waste transportation due to inadequate infrastructure. interrelated and form a vicious circle that hinders the implementation of Regional Regulation Number 17 of 2013 in Bitung City. Based on the above description, it can be concluded that waste management issues in Bitung City are not only technical, but also administrative, social, and institutional. There is a gap between the waste management policy as stipulated in Regional Regulation No. 17 of 2013 and the reality of its implementation on the ground. Therefore, research using a qualitative approach is essential to understand the dynamics of waste policy implementation in Bitung City, including the roles of actors, structural and cultural barriers, and supporting factors that influence the policy's success. The results of this study are expected to provide contextual and applicable policy recommendations to improve the effectiveness of waste management and environmental quality in Bitung City.

METHOD

This study uses a descriptive qualitative approach that aims to describe in depth the implementation of waste management policies in Bitung City based on Regional Regulation Number 17 of 2013. The research location was determined purposively in the Bitung City area, with a focus on the process of sorting, collecting, and transporting waste. This approach was chosen because it allows researchers to understand social phenomena holistically and contextually, as well as capture meaning from the perspectives of actors involved in policy implementation. Data collection was conducted through three main techniques: in-depth interviews, field observation, and documentation. In-depth interviews were conducted with purposively selected informants , including officials and staff of the Bitung City Environmental Service, village and sub-district officials, sanitation workers/waste collectors, and directly affected communities. Field observations were conducted to directly observe the condition of the Temporary Shelter (TPS), the waste collection and transportation process, and community behavior in sorting waste. Documentation was used to collect secondary data such as local regulations, performance reports, and other administrative records. Data analysis followed the Miles and Huberman interactive model, which consists of three activity flows: data reduction, data presentation, and conclusion drawing/verification. Data reduction was carried out by summarizing, selecting key points, and grouping information

based on policy implementation indicators (sorting, collection, transportation) and influencing factors. Data presentation was arranged in the form of descriptive narratives and thematic matrices. Conclusion drawing was carried out continuously throughout the analysis process. To ensure data validity, source triangulation and technical triangulation were used, namely comparing interview results between informants and between interview results with observations and documentation.

RESULTS AND DISCUSSION

4.3.1. Waste Management in Bitung City Based on Regional Regulation Number 17 of 2013

A. Waste Sorting

Waste sorting is the activity of grouping and separating waste according to the type, quantity and/or nature of the waste. Based on Regional Regulation No. 1 7 of 20 13 concerning waste management, it is stated that waste sorting is carried out by everyone at the source; managers of residential areas, commercial areas, special areas, public facilities, social facilities and other facilities; and the Regional Government. Through waste grouping activities into at least 5 (five) types of waste consisting of: waste containing hazardous and toxic materials and hazardous and toxic waste, easily biodegradable waste, reusable waste, recyclable waste, and other waste. Sorting is the key to successful recycling (Damanhuri and Tripadmi, 2015). According to them , waste sorting is the process of separating waste based on its type, which is carried out from its source to the end. The waste sorting process is an activity that separates/sorts waste according to its type or group. This waste group consists of inorganic waste, organic waste, and B3 (Hazardous and Toxic Materials).

In order to sort waste, waste producers must include labels or signs on the product and/or product packaging, which indicate that the remaining product and/or product packaging produced is of the following types: a) Waste containing hazardous and toxic materials and hazardous and toxic waste; b) Waste that is easily decomposed; c) Reused waste; d) Recyclable waste; and e) Other waste. Field research indicates that waste sorting practices among the people of Bitung City are still very limited and have not yet become a widespread practice across all levels of society. In general, only a small percentage of people consciously sort their waste, and even then, they do so for various reasons, such as using food scraps for animal feed, collecting leaves for compost, or collecting plastic bottles to sell to collectors or waste banks. However, the majority of people still dispose of all household waste in the same container or plastic bag without any separation at all. This habit is based on the assumption that waste sorting is impractical, time-consuming, and troublesome, especially for people with high mobility and busy daily lives. Furthermore, the lack of examples and role models from the surrounding environment—including neighbors, community leaders, and village officials—prevents waste sorting from becoming a binding social norm. Even among those who have participated in outreach programs and attempted to start sorting their waste, consistent behavior is difficult to maintain due to the lack of ongoing system support. In other words, waste sorting is still seen as an incidental activity that is only carried out when there is a certain program or cleanliness competition, not as a daily obligation that is inherent in every individual as part of environmental responsibility. The results of previous research by Kairupan et al. (2020) in Minahasa Regency showed that there was no waste sorting process by the community from the source to the final disposal site, and a similar condition was also found in Bitung City, where the majority of people still mixed all types of waste in one container due to unfamiliarity and the lack of adequate sorting facilities, so that failure at this initial stage became the root of recurring problems in various regions.

B. Waste Collection

Waste collection is the second link in the waste management system after sorting at the source, which functions as a bridge between waste produced by households and the transportation process to the Final Disposal Site (TPA). Based on Bitung City Regional Regulation Number 17 of 2013 concerning Waste Management, waste collection is defined as the activity of collecting and storing waste from waste sources, temporary storage sites, or integrated waste processing sites to be transported to the final processing site (Article 1 number 17). More operationally, Article 15 paragraph (1) of this Regional Regulation mandates that waste collection must be carried out by every person, area manager, and/or local government using collection facilities that meet technical and hygienic requirements. In addition, Article 29 of the Regional Regulation explicitly requires that every Waste Disposal Site (TPS) must at least meet the criteria of being closed, neat, and not emitting odors or dust, as well as being easily accessible by the transportation fleet and having separation partitions for organic and inorganic waste.

Normatively, this provision is designed to ensure that the process of collecting waste from households to the TPS runs in an orderly, hygienic manner, and does not cause negative impacts on the environment and public health. However, the results of field research indicate that the implementation of waste collection in Bitung City is still far from meeting the standards mandated by the Regional Regulation. The identified findings include four main sub-indicators: (1) very limited availability and access to TPS, (2) the physical condition of TPS that does not meet the criteria of being closed, neat, and odorless, (3) unsystematic and unintegrated collection mechanisms, and (4) low public compliance with waste disposal time regulations. These four problems are interrelated and form a vicious cycle that hinders the effectiveness of the waste collection system in Bitung City.

First, in terms of the availability and access to waste disposal sites (TPS), field findings indicate that the number of available TPS is significantly disproportionate to the need. According to the Secretary of the Bitung City Environmental Agency, currently only four TPS3R units are available at the sub-district level, while Bitung City consists of eight sub-districts and 69 villages with a population of over 216,000. This disparity is particularly pronounced in densely populated areas such as Girian (37,289 residents) and Maesa (35,957 residents) sub-districts, where a single TPS must serve thousands of households. As a result, many residents lack access to official TPS and are forced to dispose of their waste in substandard self-contained concrete bins, or even on vacant land, riverbanks, and coastal areas. In addition to the quantity issue, the accessibility of waste disposal sites (TPS) is also a serious obstacle. Based on interviews with sanitation workers and the community, garbage trucks (dump trucks and armrolls) cannot reach the narrow alleys that are characteristic of dense settlements in Bitung City. Residents in Maesa and Girian Subdistricts admitted to having to carry their waste on foot to the main road so that officers can collect it. This condition is further exacerbated by Bitung City's hilly topography (45.06% of the area is hilly and undulating and 32.73% mountainous) and its island region (Lembeh Island with two sub-districts), which is only accessible by boat at high tide. From the perspective of Edward III's (1980) policy implementation theory, this problem is closely related to the resource aspect, particularly the inadequate availability of physical infrastructure (TPS).

Second, from the aspect of the physical condition of the TPS, field findings show that most of the existing TPS do not meet the criteria mandated by Article 29 of Regional Regulation Number 17 of 2013. Based on observations and interviews with the residents of Girian Permai and Pinasungkulan Sub-districts, the available TPS are generally simple cast concrete tubs measuring 1x1 meter without a cover, without a sorting partition, and are in a dirty condition and emit a pungent odor. Third, from the aspect of collection mechanisms, field findings indicate that waste collection from homes to the TPS is carried out independently by residents without an integrated system. There are no dedicated officers tasked with collecting waste from each household, there is no systematic collection schedule, and there are no neighborhood-level collection vehicles (such as garbage carts or three-wheeled motorcycles) that reach all residential areas. Only 11 garbage motorcycles (viars) are available to serve 8 sub-districts, with a transport capacity of only 0.5-1 cubic meters per trip, so they are unable to reach all areas evenly. As a result, people living in narrow alleys or far from main roads must transport their own waste on foot, often over considerable distances.

Fourth, from the perspective of community behavior in disposing of waste, field findings indicate that compliance with the rules on waste disposal hours (6:00 PM to 6:00 AM WITA) is still very low. People often dispose of waste during the day or evening due to busy work schedules, family events, or because the waste collectors do not come regularly, resulting in waste piling up and having to be disposed of at any time. Worse still, there is no monitoring mechanism or enforcement of sanctions in place. Village officials and sanitation workers are only able to issue verbal warnings without recording or written sanctions. The community itself has proposed the need for stricter sanctions, the installation of CCTV at strategic TPS points, and more optimal supervision.

This low level of public compliance is closely related to the dispositional aspects of the target group and the weak bureaucratic structure in enforcing regulations. People tend to choose the most practical and profitable behavior for themselves in the short term, without considering the collective impact of the violation. The theory *of planned behavior* developed by Ajzen explains that a person's behavior is determined by three main factors: attitude towards behavior (*attitude*), subjective norms (*subjective norms*), and perceived behavioral control (*perceived behavioral control*). The findings regarding the limitations and poor conditions of Temporary Shelters (TPS) in Bitung City are in line with the results of research by Sharla and Harlis (2025) in Samarinda City which found that although the Environmental Agency has attempted to maximize waste management, its implementation is still not optimal because several variables in the Van Meter and Van Horn theory have not been met, especially in the element of the intensity of the implementer's disposition.

C. Waste Transportation

Waste transportation is the third link and a critical stage in the urban waste management system, which functions to move waste from Temporary Storage Sites (TPS) to Final Disposal Sites (TPA) efficiently, timely, and hygienically. Without a reliable transportation system, all efforts to sort and collect waste from the source will be in vain because the waste will accumulate at TPS, polluting the environment, and causing public health problems. Based on Bitung City Regional Regulation Number 17 of 2013 concerning Waste Management, waste transportation is defined as the activity of carrying waste from the waste source, temporary storage site, or integrated waste processing site to the final processing site (Article 1 number 18). More operationally, Article 15 paragraph (2) of this Regional Regulation mandates that waste transportation must be carried out regularly, on time, and using a fleet that meets technical and hygienic requirements. In addition, Article 23 paragraph (4) expressly states that the regional government is obliged to provide waste transportation facilities and infrastructure, including a fleet of trucks, containers, and boats for island areas, as well as to carry out regular maintenance so that the fleet is always in operational condition.

Normatively, this provision is designed to ensure that waste collected at the TPS can be immediately transported to the TPA before it causes accumulation, odor, and pollution. However, the results of field research indicate that the implementation of waste transportation in Bitung City is still far from meeting the standards mandated by the Regional Regulation. The identified negative findings include four main sub-indicators: (1) the condition of the transportation fleet which is often damaged and not maintained, (2) an unscheduled and reactive fleet maintenance system, (3) inappropriate and uneven transportation schedules and routes, and (4) mixing of waste that occurs during the transportation process which makes community sorting efforts futile. These four problems are interrelated and form a vicious circle that hinders the effectiveness of the waste transportation system in Bitung City.

The findings regarding the poor condition of the fleet and the absence of a routine maintenance system in Bitung City are in line with the results of research by Pratama (2021) who analyzed the availability of urban waste management facilities and infrastructure and found that limited asset maintenance budgets were the main cause of the decline in service quality, and the lack of long-term planning regarding the development of landfills led to the problem of waste accumulation. The waste collection problem in Bitung City reflects a systemic gap between upstream and downstream policies. On the one hand, Regional Regulation No. 17 of 2013 mandates waste sorting at source as a community obligation. On the other hand, the local government does not provide the infrastructure to support such sorting, especially separate collection vehicles. This results in policy inconsistencies, where normative policies conflict with operational realities on the ground. Communities face an unfair situation: they are required to sort, but their efforts are not rewarded because the waste is ultimately mixed back together. This creates a crisis of trust *between* the community and the government, which is invaluable social capital in implementing public policy.

4.3.2. Factors influencing the implementation of waste management policies in Bitung City

A. Internal Bureaucratic Factors

In Bitung City, research results indicate that internal bureaucratic factors are one of the main obstacles in the implementation of Regional Regulation Number 17 of 2013 concerning Waste Management. Identified problems include limitations in the quantity and quality of human resources, poor maintenance of facilities and infrastructure due to the absence of a scheduled maintenance system, weak coordination mechanisms between agencies (DLH, sub-districts, districts, the Public Order Agency, and the police), and minimal budget allocation for operations and maintenance. These four problems are interrelated and form a cycle that is difficult to break, where budget limitations lead to minimal maintenance of facilities, damage to fleets causes disruption to transportation schedules, disruption to transportation schedules leads to piles of waste at TPS (landfills), piles of waste lead to public complaints, and public complaints are not followed up due to weak coordination and commitment from officials.

From a human resources perspective, the Bitung City Government currently employs 327 sanitation workers tasked with sweeping streets, collecting trash, and managing waste at the landfill. Quantitatively, this number may seem significant, but when compared to the service area of 302.89 km² spread across 8 sub-districts and 69 urban villages, and a population of over 216,000, the ratio of sanitation workers to the population is only around 1:660, meaning one sanitation worker must serve approximately 660 residents. This figure is far below the ideal standard recommended by the Ministry of Environment and Forestry, which is 1 sanitation worker for every 250-300 residents in urban areas. The limited number of officers is further exacerbated by the hilly topography of Bitung City (45.06% of the area is hilly and 32.73% mountainous) and its island region (Lembeh Island with two sub-districts).

In terms of facilities and infrastructure, the most prominent internal bureaucratic factor is the lack of a routine and scheduled maintenance system for the waste collection fleet. Based on field findings, the Bitung City Government's fleet—consisting of 9 dump trucks, 9 amroll trucks, 6 pickup trucks, 11 viars, and 2 boats—frequently experiences breakdowns during operations due to engine components, tires, or hydraulic systems that never receive regular preventative maintenance. As a result, older trucks often have to go into the workshop for 2 to 3 days for repairs, and in some cases, severe damage requires longer repair times, resulting in trucks being out of service for weeks. From the aspect of inter-agency coordination, field findings revealed that the coordination mechanism between the Environmental Agency (DLH) as the village and sub-district apparatus as the spearhead of public services at the community level, and the Public Order Agency (Satpol PP) and the police as law enforcement officers, remains very weak and unstructured. This is despite Bitung City Regional Regulation Number 17 of 2013 having detailed the authority for supervision and enforcement involving various parties. From the perspective of commitment and disposition of officials, field findings indicate that although the bureaucracy is normatively committed to implementing waste management policies, in practice this commitment is not followed by consistent and firm concrete actions. Field officers admitted that when they find people disposing of waste at inappropriate times or not sorting their waste, they only issue verbal warnings without recording or reporting further. This attitude is based on the assumption that waste management violations are not serious violations, and that verbal warnings are considered sufficient to resolve the problem. However, this perception contradicts the mandate of the Regional Regulation, which explicitly stipulates criminal sanctions of imprisonment or fines for violators (Article 35).

B. Social and Cultural Factors of Society

Social and cultural factors in society are variables that are no less important than internal bureaucratic factors in determining the success of public policy implementation, because no matter how good a regulation is and how competent the implementing bureaucracy is, if the community as the target group of the policy does not have the awareness, will, and habits that support it, then the policy will be difficult to implement in the field. In the perspective of the policy implementation theory proposed by Edward III (1980), the disposition aspect *does* not only refer to the attitude of the policy implementer, but also includes the response and behavior of the target group of the policy. The community is not a passive object that simply receives the policy, but rather an active subject that can support, ignore, or even reject the policy depending on the extent to which the policy is in accordance with their values, norms, habits, and interests. Furthermore, in the concept of community participation proposed by Arnstein, community participation can be at various levels, ranging from simply receiving information (*manipulation* and *therapy*), providing input (*consultation* and *placation*), to active involvement in decision-making (*partnership* , *delegated power* , and *citizen control*). The higher the level of community participation, the greater the chance of the policy being successful.

However, in Bitung City, research results show that social and cultural factors in the community are a serious obstacle in the implementation of Regional Regulation Number 17 of 2013 concerning Waste Management. In general, the people of Bitung City, who have diverse social characteristics with diverse ethnic backgrounds, customs, and levels of environmental awareness, still exhibit habits that do not support orderly and sustainable waste management. The habit of disposing of waste at times other than those specified, not sorting waste at the source, and the practice of dumping waste in rivers, coastal areas, or vacant land, reflect that environmental awareness has not become a value that is rooted in the daily lives of the community. In fact, Article 24 paragraph (1) of Regional Regulation Number 17 of 2013 expressly mandates that everyone is obliged to maintain cleanliness in their environment and carry out waste reduction activities through *reduce* , *reuse* , and *recycle actions* . However, this mandate has not been internalized as a moral obligation inherent in each individual.

C. Policy and Institutional Factors

Policy and institutional factors are fundamental variables that determine the direction, legitimacy, and capacity of public policy implementation, because without a clear regulatory framework and supporting institutional structure, all policy implementation efforts will lose a solid footing. In the perspective of policy implementation theory put forward by Edward III (1980), bureaucratic structures *are* one of four key variables that determine the effectiveness of implementation, which include the suitability of the implementing organization, coordination mechanisms, standard operating procedures (SOPs), and clear authority and responsibility between organizational units.

In Bitung City, research results indicate that policy and institutional factors are among the most fundamental structural obstacles in the implementation of Regional Regulation Number 17 of 2013 concerning Waste Management. The identified problems cover two main aspects: first, clarity and consistency of regulations, particularly regarding the mechanism for enforcing sanctions and the division of roles between agencies; second, institutional and budgetary support, particularly the absence of a dedicated institution at the village level responsible for overseeing policy implementation, and the absence of an integrated team as mandated by the Regional Regulation. These two problems are interrelated and reflect systemic weaknesses in regional governance in the field of waste, rooted in low political commitment, weak vertical and horizontal coordination, and the absence of clear accountability mechanisms.

The Waste Management Agency (BLUD) plays a very strategic role because it can collect and manage fees for goods and/or waste management services according to the rates stipulated by Regional Regulations (Article 20), so that waste management is no longer entirely dependent on the limited Regional Budget (APBD). With the existence of the BLUD, revenue from cleaning fees can be managed more professionally and transparently, and a portion of this revenue can be allocated for fleet maintenance, officer incentives, and infrastructure development. However, until now the BLUD Waste Management Agency has not been established, so all operational costs of waste management are still borne entirely by the Regional Budget (APBD) which is very limited each year. As a result, there are no alternative funding sources that can be used to improve service quality, and local governments continue to experience budget deficits in the waste sector.

From the aspect of institutional budget support, field findings revealed that budget allocations for operational supervision, facility maintenance, and officer incentives are still very limited. According to village officials, they do not have a dedicated budget to monitor community compliance with waste regulations, leaving oversight entirely to community self-help mechanisms and weekly community service activities. Effective oversight, however, requires operational costs, such as transportation for officers to the field, communication with residents, report preparation, and coordination with the Environment Agency (DLH) and other relevant agencies. Without an adequate budget, village officials will never be able to conduct optimal oversight, and violations of waste regulations will continue to occur without consequence.

Pratama's (2021) research, which analyzed the availability of urban waste management facilities and infrastructure, also found that limited asset maintenance budgets were the main cause of the decline in service quality, and the lack of long-term planning related to landfill development led to problems with waste accumulation. Tumbel (2018) revealed that the accountability of the Regional People's Representative Council (DPRD) in the formation of regional regulations has not been optimally implemented, resulting in policies that are less responsive to community interests. This is in line with findings in Bitung City that Regional Regulation Number 17 of 2013 concerning Waste Management, although it stipulates sanctions and supervisory mechanisms in a normative manner, its implementation is weak due to the lack of political and institutional commitment to support enforcement of these regulations. Furthermore, research by Mokat et al. (2020) emphasized that the government has not been optimal in implementing policies, especially in the aspect of imposing sanctions on violators of regulations. This finding reinforces the results of research in Bitung City which showed that although the Regional Regulation stipulates criminal sanctions of imprisonment or fines for people who dispose of waste outside the specified hours or do not sort waste, in practice, officials only give verbal warnings without recording and without follow-up, so that the policy loses its coercive power.

CONCLUSION

Based on the discussion above, the following conclusions can be drawn:

1. Waste management in Bitung City based on Regional Regulation Number 17 of 2013 has not been running optimally. This is reflected in several problems :
    a. Waste Sorting: Still very limited. The majority of people mix all types of waste because they find it impractical, are unfamiliar with it, and lack examples from their environment. Supporting facilities (separate trash bins, sorting partitions at TPS) are inadequate. The perception that sorted waste will be remixed during transportation further reduces community motivation.
    b. Waste Collection: There are only four TPS3R units available at the sub-district level, which is not sufficient to meet the need, especially in Girian and Maesa. Most of the TPS are concrete tubs without covers, are smelly, and do not meet the standards set out in Article 29 of the Regional Regulation. Trucks cannot reach narrow

alleys. The collection mechanism is not systematic, and public compliance with waste disposal times is still low.

c. Waste Transportation: The fleet (9 dump trucks, 9 amrollers, 6 pickup trucks, 11 viars, and 2 boats) often breaks down due to a lack of routine maintenance. Maintenance is reactive (emergency), and the budget is limited. Schedules are disrupted, routes are uneven, trucks cannot enter narrow alleys, and hilly and island areas are difficult to reach. There is no dedicated fleet for sorted waste, so the waste that has been sorted by the community is mixed back together, making sorting efforts futile.

2. Factors Influencing the Implementation of Waste Management Policy in Bitung City:

a. Internal Bureaucratic Factors **:** Internal bureaucratic factors are an obstacle to implementation because the apparatus has commitment but is hampered by limited personnel, the absence of routine fleet maintenance, and weak coordination between the DLH and the sub-district.

b. Social and Cultural Factors of Society: Social and cultural factors in society hinder implementation because the habit of throwing away garbage outside the designated hours is still strong, waste sorting has not become a culture, and the tradition of mutual cooperation has not been accompanied by firm social sanctions for violators.

c. Policy and Institutional Factors: Policy and institutional factors are the main obstacles because the Regional Regulation is weak in enforcing sanctions, there is no special institution at the sub-district level that oversees the implementation of waste policies, and coordination between agencies is very limited.

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