Politics and civil society in regional waste management

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Abstract. Indonesia, like the majority of countries throughout the world, is grappling growing waste management issues. On a national or regional level. As a result, an effective program to limit garbage disposed of in landfills is required. Collaboration between municipal government and civic society is one option. This study examines the pattern of synergy between local government and community organizations in enhancing trash management through the case of coordinating waste management in Garut Regency, West Java Province, Indonesia. We modified the Collaborative Governance Framework and performed in-depth interviews with stakeholders, as well as a search for documentary sources and transect tracing. We gathered qualitative information from stakeholders about their experiences and perceptions of synergy patterns between sub-district trash bank administrators and district governments. The data was analyzed in three stages: data reduction, presentation, and conclusion. The collaborative governance paradigm of Anshell and Alison is applied to data analysis. As a result, it was discovered that the Garut Regency waste bank WhatsApp group offered sub-district waste bank administrators with an effective waste management communication space. Waste managers might be subject to a variety of local government laws. However, because the number of Waste Bank management members is still restricted, it is insufficient to address regional waste management issues.

1 Introduction

Climate change, biodiversity loss, land degradation, deforestation, and other global challenges are all interpreted through the lens of environmental policy [1]. It must consider the complex interactions between decision-makers, society, and nature [2]. Governments all throughout the world have pledged to safeguard ecosystems, promote balance, and prioritize sustainable development. The interdependence of all these things is aimed at achieving human welfare [3]. The growing urban population poses environmental challenges. One of them is better trash management [4]. In Indonesia, waste management has become a major issue. As a result, the government has encouraged all aspects, including government institutions, corporate organizations, and the community, to adopt more ecologically friendly policies [5]. Synergy between and among elements is required. Particularly by stepping up their efforts to intervene more deeply in the energy and mineral sectors. Establishing

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recycling programs, for example, or encouraging and funding efficient, ecologically friendly technologies. Furthermore, investments in environmental education are required [6]. Not only does the government have an empirical impact on environmental policy, but so does corporate concern [7].

Several Indonesian cities do not yet have adequate waste management systems. Because there are still people who do not understand waste management, including the source of waste, littering, a lack of facilities and infrastructure, a lack of field workers, a lack of awareness of community participation in cleanliness, and a lack of supervision and sanctions for those who break the rules [8]. The waste management system is still not correct and good because there is no land to build temporary waste disposal sites, facilities and infrastructure are insufficient, and public awareness and concern about the importance of correct and good waste management, as well as the impact of waste management on health, remain low [9]. There are two issues. Waste that has not been treated. In addition, final disposal areas (TPA) are administered using an inadequate management system. Local community waste control is essential. Waste management has historically been ineffective due to a lack of comprehensiveness from source to downstream. Furthermore, not all stakeholders are involved [10]. As a result, a shortage of temporary trash storage facilities, a lack of land, and a lack of waste management awareness are all common occurrences [11].

Several of these research look into the relationship between waste management and environmental harm. Environmental engineering, public health, and environmental health are some of the approaches used [12]. However, initiatives based on policy or political perspectives have not been considered. However, knowing the environmental policy process and its relationship to a country's waste management is crucial [13]. In contrast to past research, this study seeks to analyze the effectiveness of local government political communication with civil society power. Specifically, the waste bank community. Observing communication patterns and sociopolitical events is critical for providing a new perspective on why the local government's waste management system has been so ineffective thus far.

2 Methods

One facet of environmental policy is the collaboration between municipal governments and civil society in waste management. So far, the partnership between these two forces has not been flawless. As a result, these two forces must be emphasized more strongly. This study aims to investigate two important strengths. Garut district regional government's environmental policy. In addition, waste bank settlements exist in several Garut Regency areas. The investigation was conducted in stages. First, there is the preliminary phase. This was accomplished by doing literature searches, primarily on the Garut district government's website through the Environment and Hygiene Service. Several current legislation, particularly regional environmental and sanitary restrictions, were also studied. Following that, various individuals were interviewed, including both Garut Regency Environment and Hygiene Service office holders and a large number of Waste Bank managers. Especially because there was a WhatsApp group that connected all of the garbage banks in Garut Regency to a single platform. The following step will involve observing several rubbish banks in Garut Regency to determine their waste management success. administratively and operationally. Finally, classify waste banks based on their level of professionalism in compliance with government regulations.

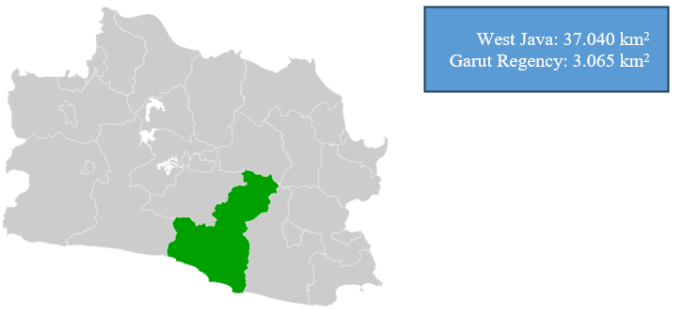

Fig. 1. Area of Garut Regency (green colour) in West Java, Indonesia. Source: https://commons.wikimedia.org/wiki/File:Map_of_West_Java_highlighting_Garut_Regency.svg

The results were analyzed qualitatively. Data triangulation is the use of a validation test method based on qualitative data (interviews, observations, and forum group discussions) in the data triangulation process. In qualitative research, triangulation is the use of many methods or data sources to gain a comprehensive understanding of a topic. Triangulation is also known as a qualitative research method for testing validity by combining data from numerous sources. A theoretical method to problem analysis based on the government collaboration theory (collaborative governance).

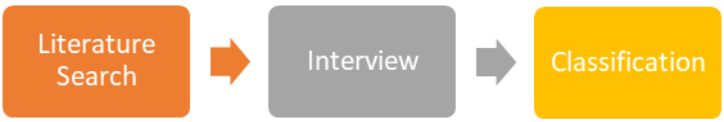

Fig. 2. The investigations stages.

3 Results and discussion

3.1 National and local environmental policy and waste management

The garbage issue is a national one. The administration is working to address a number of issues at both the central and regional levels. Three elements contribute to the waste problem. According to research findings from the United Nations Environment Programme (UNEP) and the International Solid Waste Association (ISWA), waste management has three key challenges, as shown in the diagram below:

Fig. 3. Three problems of waste management [14].

Unmanaged waste mounds can be minimized in a number of ways. One way is to charge a low-value plastic garbage fee. The Waste Management Law Number 18 of 2008 was passed in Indonesia. However, this is useless because there are no consequences for strict law enforcement against litterers. The Ministry of Environment and Forestry intends to remove residential general rubbish mounds in 2022. A third of the overall sum was not managed. Private individuals and non-governmental organizations may also be asked to join. However,

the system's parameters must be explicitly defined. Which is yet unknown. There would be no overlap in waste management between the government and other parties. So far, the government has tried to experiment with waste management. From identifying single-use plastic waste (2016) to devising a strategy for producers to reduce trash (2019), to converting rubbish into compost, Meanwhile, many innovations from non-governmental and private institutions are expected to replace the less-than-optimal conservative management strategy of local governments. Local government interaction with business institutions, non-governmental groups, or communities coping with waste management is essential in this environment [14].

Table 1. Waste that has not been managed nationally [14].

National trash heap	69,2 million tonnes
Unmanaged	35,48 million tonnes

After China, Indonesia is the world's second-largest plastic maker. Surprisingly, one of the recycling plants receives 4,000 tons of plastic waste from the United States every month. In reality, Indonesia's informal sector can generate up to one million tons of plastic waste each year. Waste management should be done in an integrated manner. Recycling usable waste, such as plastic and paper, is one example. Low-value plastic reduction, such as plastic bags and packaging, is useless and unmanageable in the recycling industry. Plastic taxes or credits might be levied on producers in this sector to assist them in managing low-value plastic waste. Manufacturers of plastic packaging goods are expected to purchase waste managed by the informal sector and recycling businesses that have a good data collection system. According to UC Davis and Hasanuddin University research conducted at the Makassar Paotere market, 23% of the fish samples collected contained plastic in their stomachs. If recycled plastic trash is handled efficiently, it can provide a monthly profit of IDR 16,379,472 from the production of 48 tons of plastic waste. Central and regional governments are making a variety of efforts to mitigate the negative effects of plastic waste. As was done in Bali, namely in Badung Regency, garbage is transformed into fuel oil (BBM). Similarly, Surabaya launched the Suroboyo Bus, for which tickets can be obtained by exchanging plastic waste [15].

The government can address this environmental issue by establishing Ministerial Regulation Policy No. 75 of 2019 on Roadmaps for Producer Waste Reduction through the Ministry of Environment and Forestry. Where is the rule that encourages corporations to become more involved in addressing environmental challenges caused by plastic waste? The rule establishes plastic packaging management standards for organizations, particularly bottled water manufacturers. The major goal is to reduce the amount of plastic waste by up to 30% by 2029. The application of ministerial regulation is sufficient to address environmental challenges.

There are various barriers to rubbish disposal in Garut Regency. Even though billions of dollars have been spent to address this, one solution is a collaboration agreement between the Garut Regional Government and the West Java Provincial Government under the National Strategy Program. According to this plan, Garut Regency will be responsible for delivering 150 tons of rubbish each day to Legok Nangka, Nagreg, and Bandung Regencies. The partnership established an agreement on a budget of up to Rp. 18 billion, which is currently being negotiated. Furthermore, the regional administration plans to purchase an extra fleet of dump trucks with a capacity of 12 tons. The new fleet was fooled since waste sorting was too inconvenient to do. This is owing to the 15-degree incline of Legok Nangka's position [16]. Garut Regency is in the center of West Java for waste output, with a value of 464.7. Bandung City gets the highest score (1,529), and Pangandaran Regency has the lowest (46.62). This value is based on both area and population. Garut Regency is divided into 42 districts.

Bandung is divided into 31 districts. Pangandaran Regency is divided into 10 subdistricts [17].

Every day, around 230 tons of rubbish are collected at the Pasirbajing Final Disposal Site in Banyuresmi District, Garut Regency. The 230 tons of rubbish are transported by 38 fleets owned by the Garut Regency Environmental Service, 10 waste transport vehicles in the district, and waste dumped directly into the Pasirbajing landfill by the general public. So, with the 10 vehicles in the sub-district, the 38 in the Environmental Service, and a few from the public, a total of 230 tons of garbage are delivered to the Final Disposal Site daily. According to the findings of the Waste Management Evaluation Meeting, which was attended by representatives of regional work units and research consultants, Garut Environmental's waste handling performance will improve by approximately 1.5% by 2023 [18].

Even still, trash management performance is substantially behind the target established by the Garut Regency Regional Medium-Term Development Plan, which calls for 45% waste management by 2023. However, it only got to 31.5% this year. An interventional strategy is required to increase the performance of the waste processing system. The link is tied to the breadth of service, which means that the larger the territory served, the more handling is performed, and thus the more rubbish is transferred to the landfill. Of course, this is not the best solution because the landfill capacity is limited. As a result, the optimal solution is to collect this debris upstream while also working to reduce waste in homes.

Garut Regency Environmental Service (ES) will launch a huge waste reduction effort through community education, beginning with agreements on trash management, who processes it, facility and infrastructure models, budget sources, and where to collect waste. In this segment, his party plans to establish a number of citizen associations in Garut Regency as pilot initiatives to increase community knowledge and engagement. This waste issue is not just the duty of the government, but also of the whole community, from individual communities to other parties. ES encourages the public to respect Garut Regency Regional Regulation Number 4 of 2014 on the Management of Household Waste and Waste Similar to Household Waste, which says that rubbish must be disposed of between 9 p.m. and 5 a.m. So, once the transportation from 5 a.m. to 8 a.m. is accomplished, there will be no waste at 9, 10, and 11. ES will, however, continue to sweep from 10 to 11. Aside from that, ES plans to replicate environmental education corners in citizen organizations as a pilot project for the movement, allowing people to learn how to sort organic and inorganic rubbish. By working together, the government will be able to grow or accomplish Garut's goal of becoming waste-free by 2025 [19].

3.2 Collaboration between government and civil society

Civil society and development studies are inextricably linked. Because of the unequal distribution of wealth in the face of economic progress, development policymakers have realized that economic growth alone is insufficient. Development, like economic development, should be viewed as an institutional and organizational process [20]. Civil society interest groups' influence on the state must be proportional. If it becomes extreme, it can lead to gridlock, immobilism, and hardening of the democratic arteries. Not a rich and lively democratic government [21]. Collaborative governance has two opposing definitions. The first approaches the issue as a process of collaborative interaction between public and private actors that is driven by agency. [22] Second, references to public administration have been removed in favor of emphasis on a collection of stakeholders engaging in cross-border collaboration. Understanding the social and psychological aspects of collaborative governance is essential to do so [23].

3.3 Establishment of the WhatsApp group "Garut Waste Bank"

The existence of information technology facilitates communication. To build communication with the public, the government can employ media such as WhatsApp Group (WAG). Especially so that policy lines are understood for development to be successful. Social media, including WAG, is very helpful in fostering cultural understanding. There are various regulations that apply in this conversation. These include educational, social, and humanitarian purposes. Things like fanaticism, politics, and sensitive religious issues should be avoided [24]. The Garut Waste Bank WhatsApp Group, according to Ramdan [25], was recently formed in January 2023. Initially, this was due to standard Ministry of the Environment waste management criteria. In charge of the Ministry of Environment and Hygiene. SIMBA (Waste Bank Management Information System) is the Ministry of Environment and Forestry's official online application for integrating the Waste Bank database throughout Indonesia. Waste Bank is a facility for managing waste using the 3R principles (Reduce, Reuse, and Recycle), as a means of waste management education, behavior change, and circular economy implementation, formed and managed by the community, business entities, and/or local government (Minister of Environment Regulation No. 14 of 2021) [26].

Members of the WhatsApp group include the Environmental Service, various sub-district chiefs, members of the Health Service, and waste bank managers. Waste management must be comprehensive and integrated from the source to the point of disposal. The Waste Bank can help with waste management in a synergistic way. This is also stated in Minister of Environment and Forestry Regulation 14 of 2021 on Waste Management at Waste Banks. A waste bank, according to Article 1 number 6 of the Regulation of the Minister of Environment and Forestry (Permen LHK), is a facility for managing waste using the 3R principles (reduce, reuse, and recycle), as a means of education, changing waste management behavior, and implementing a circular economy, that is formed and managed by the community, business entities, and/or local government.

Waste handling is done in waste management, one of which is through waste sorting operations. This task is carried out by categorizing waste as follows: waste containing B3 and/or B3 waste; waste easily degraded by natural processes; reusable waste; recyclable waste; and other rubbish. Aside from that, this law governs waste bank facilities, which are classified according to their type. There are specifications for both Main Waste Bank (BSI) and Unit Waste Bank (BSU) facilities, including:

Table 2. BSI and BSU facility requirements.

Type of Waste Bank	Facility REquirements
Main Waste Bank	• Have waste classification facilities based on waste kind. • Having a label or sign on the facility. • The location is conveniently accessible. • It does not pollute the environment. • It has trash disposal facilities. • Have waste collection and transportation instruments on hand.
Unit Waste Bank	• Have waste classification facilities that are labeled or have a sign on the facility. • Size of location and Waste Management capacity based on needs. • a convenient position that does not pollute the environment

Only two waste banks in Garut have so far adopted SIMBA. The Malangbong Waste Bank and the Bayongbong Waste Bank, to be specific. Malangbong Bersemi Waste Bank is located in Garut Regency's Malangbong sub-district. This facility is present in an effort to create an environment with less waste and waste management independence. Inorganic garbage is collected and sorted before being placed in waste banks. Compost will be made from organic waste. At the Batu Kancing Landfill [27], just the residue will be disposed of. Rumah Amal Salman and Garut Alumni of the Bandung Institute of Technology (ITB) sponsor the Amal Haqiqi trash bank. This bank is in the Bayongbong District of the Garut Regency. The launch of this waste bank is intended to encourage local communities to learn how to save money while also safeguarding the environment. Because of the availability of this waste bank, individuals are no longer embarrassed to pick up trash from the streets or rivers. Plastic garbage dominates the waste managed by the Haqiqi Amal garbage Bank, with other waste types including scrap metal, scrap aluminum, domestic waste, and so on [28].

3.4 The role of Bank Sampah Garut WhatsApp Group

So far, the presence of the Garut Waste Bank WA group has served numerous purposes. Among these are: (1) Supplying Waste Bank managers with information on government environmental legislation. It is intended that this information will also reach the community where the trash bank manager lives; (2) As a way of mediation and consulting for inexperienced waste bank managers. Consultation with expert trash management was a positive experience. In addition to administrative consultations with the Environmental Service; (3) As a technique of promoting economically valuable items made from recycled garbage. Several waste recycling goods advertised by professional waste managers are currently available on Shopee; (4) Media coverage of each Garut waste bank manager's advancement.

Based on current events. Only eight waste banks have management systems that meet with rules, specifically ministerial regulations. Bersuci Madera Waste Bank, Amal Hakiki, Darul Arqam, Oces Pisan Sukamenteri, Hurip Bagja Banyuresmi, Sawargi Sejahtera Bayongbong Waste, Cikubung Asri Karangpawitan, and Tong Direret Tarogong Kidul are among the organizations involved. Garut Regency is divided into 42 sub-districts. This means that many other sub-districts are still attempting to build garbage banks. The absence of garbage banks is generally owing to a shortage of mobile human resources. This indicates that public awareness is low. Aside from that, a good trash transportation system and efficient waste management are required to develop a waste bank. All of this necessitates significant operational costs. As a result, in the initial pilot, human resources who are strong and willing to make sacrifices are required.

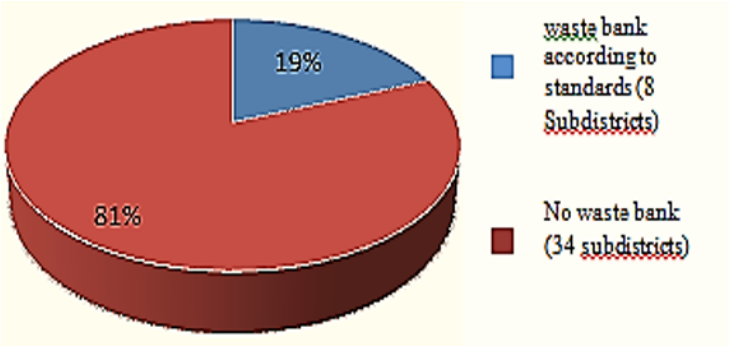

Fig. 4. Percentage of districts that have waste banks according to standards.

The emergence of the Garut Waste Bank, which is supported by a WhatsApp Group, demonstrates the importance of civil society in development. The government's objective is to embrace the community in policy through an appreciative political approach. This collaboration will be advantageous. Because well-managed local tactics have the potential to yield large-scale profits. Waste pollution can be reduced by promoting appropriate and economically motivated waste management and disposal strategies. This research can help governments and communities reduce plastic pollution on a local, national, and global scale [29].

4 Conclusion

Through a variety of initiatives, the government has worked to improve the quality of the environment. The installation of a waste bank managed by the Ministry of Environment and Forestry sets a precedent for integrated waste management. The local government in Garut Regency responded to this government policy through the Environmental Service. Through the Garut Waste Bank Group on WhatsApp. One of the objectives is to encourage civil society participation in government activities. This reciprocal relationship allows for coordinated political action by the government. However, the number of waste banks that meet norms in Garut remains low. This is mostly since pioneering efforts to build a trash bank necessitate strong and voluntary human resources. It is believed that the inclusion of community power in development projects will have an incremental impact on regional and national environmental policies. Many components of this study can still be developed because it is in its early stages. Like the viewpoint on the outcomes of garbage recycling. Alternatively, the evolution of mass media technology from a social media group to a website.

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