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Stakeholder Analysis in Urban Waste Management Policy

A Case Study of Malang City

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Abstract: Waste management in Malang City involves diverse stakeholders with unequal power, legitimacy, and urgency, leading to coordination challenges and gaps in policy implementation. This study aims to analyze the configuration of waste management stakeholders using the Stakeholder Salience Framework to identify stakeholder classes, map interests, and explain the implications of attributing imbalances on governance failure. A qualitative approach was used to collect data through interviews, observations, and document reviews. Informants were purposively selected from government actors, technical units, the private sector, waste management startups, communities, and the public. Findings indicate that formal power is concentrated among government stakeholders, who are the dominant and definitive actors. At the same time, the urgency of waste management lies with community stakeholders, technical units, and field actors. This configuration demonstrates an imbalance that creates a structural disconnect between policy formulation and operational practices, leading to policies that are administrative, less responsive, and lack substantive collaboration. These findings confirm that governance failure is not solely due to weak coordination but rather to the unequal distribution of stakeholder attributes. Conceptually, this study extends the application of the stakeholder salience framework by showing that the level of salience is dynamic and can be engineered through institutional interventions that reorganize the distribution of power in urban waste governance.

Keywords: Stakeholder Analysis; Waste Management; Governance; Malang City.

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1. Introduction

Waste is a significant issue in city development, leading to economic activities that generate excess goods. Socially, waste is identified as a public issue, reflecting public responses to it (Sayrani & Tamunu, 2020). Waste management is regulated by a policy framework outlined in Law No. 18 of 2008 concerning Waste Management, which mandates comprehensive, integrated waste management from upstream to downstream. Presidential Regulation No. 97 of 2017 concerning National Policy and Strategy for Household Waste Management and Household-Like Waste mandates strengthening coordination between actors, increasing institutional capacity, and increasing community and business participation.

However, this has not alleviated the waste problem in many regions, including Malang City. The increasing volume of waste in Malang City, coupled with population growth and economic activity, has not been matched by an equally rapid expansion of waste management capacity. Waste management, which involves multiple actors—the Malang City Government, the Department of Environment, the Regional Development Planning Agency, private companies, waste banks, and waste management startups such as Buangdisini and iLitterless—as well as the Reduce-Reuse-Recycle Waste Processing Facility (TPS3R), Recycling and Composting Sorting Houses, and waste management community groups—is proceeding with differing levels of urgency, legitimacy, and power. Rather than synergy, the resulting situation often creates tension between actors and ineffective policies.

However, the fundamental problem lies not only in overlapping interests but also in indications of the failure of waste management governance to mediate and reconcile differences in power, legitimacy, and urgency among stakeholders (R. K. Mitchell et al., 1997). Formal policy actors such as the Department of Environment and the Regional Development Planning Agency (Bappeda) operate within a hierarchical framework that is less adaptable to integrating the interests of informal and semi-informal actors with social legitimacy and high urgency into practical waste management actions on the ground. This has led to a structural misalignment between the policy-making stakeholders mentioned above and the dynamics of waste management on the ground at the community level.

Several previous studies have examined the dynamics of stakeholder roles in waste management. Xu et al. (2016) studied the household food waste management system by analyzing the interests, attitudes, power, and knowledge of stakeholders and their social networks. Their research found weak motivation and coordination among stakeholders in Beijing's waste management system, with stakeholders lacking sufficient access to make changes to the system. Caniato et al. (2014) found that poor communication between stakeholders hampers effective implementation of policy. In contrast, studies conducted by Harlyandra and Kafaa (2021) in Cirebon and by Ikram (2020) in Makassar demonstrated the importance of multi-actor collaboration in creating waste management innovations, thus boosting their effectiveness. However, these studies focused on functional relationships between actors and failed to critically address the imbalance in power, legitimacy, and urgency among stakeholders, resulting from governance failures that undermine the effectiveness of the waste management system. At the city level, the stakeholder salience framework (R. K. Mitchell et al., 1997) has rarely been developed as a tool for analyzing waste management policy governance. Previous research has largely focused on formal stakeholders—local governments or environmental organizations—and has not further explored the emerging roles of informal actors, such as waste management pioneers and community groups, which play a crucial

role in promoting effective waste management and circular economy practices. Therefore, research is needed to understand how attributes of power, legitimacy, and urgency are distributed and interact among actors and how this influences the effectiveness of waste management governance.

Waste management places significant emphasis on the influence of the roles and interactions of stakeholders, based on knowledge, organizational communication, information gathering, and building participatory public awareness (Magriaty et al., 2020). Therefore, a stakeholder analysis approach was chosen, using a method divided into three stages: 1) stakeholder identification; 2) stakeholder classification; and 3) stakeholder interest and role analysis to determine the extent of their roles and interests in waste management (Hidayat et al., 2020). In the context of this research, a more in-depth study of the stakeholders involved is needed, as an initial step in improving governance and understanding the dynamics of interactions and interests between stakeholders.

This research seeks to expand the theoretical application of the stakeholder sufficiency framework to the context of public policy by revealing structural imbalances between power, legitimacy, and urgency, key factors influencing the effectiveness of waste management in Malang City. Practically, the research findings can serve as an analytical basis for the government, particularly the Environmental Agency, as a key actor in designing more adaptive and collaborative policies by integrating technical needs into every decision-making process. The resulting interest in mapping and identification of key stakeholders can be used as instruments to improve cross-actor coordination and strengthen legitimate actors.

2. Methods

This study uses a descriptive qualitative approach to obtain an in-depth study of stakeholder dynamics in waste management policies in Malang City (Sugiyono & Lestari, 2024). Malang City was selected as the research location, considering the level of complexity of waste management involving multiple formal and informal actors. Informants were selected through purposive sampling with the following criteria: 1) actors play a direct role in waste management or policies, 2) actors represent different categories (government, private sector, technical units, start-ups, environmental communities, scavengers), 3) have been operating in waste management for at least one year. Informant selection uses the principle of information power—a sufficient number of informants to obtain rich data to answer the research questions and sample heterogeneity. For transparency, Table 1 is presented listing stakeholder categories, the number of informants, and status/position.

Table 1. Informant Category

No.	Stakeholder	Number of Informants	Status/Position
1	Department of Environment	3	• Head of Waste and Hazardous Waste Division • Head of Waste Management Section • Archivist
2	The Local People's Representative Council	1	• Deputy Chairman of Commission C
3	Regional Development Planning Agency	1	• Head of Planning, Control and Evaluation Division
4	UPT TPA Supit Urang	4	• Head of the Landfill Technical Implementation Unit • Supervisor of the Supit Urang Landfill LTP • Officer of the Supit Urang Landfill LTP • Landfill Operator
5	Waste Bank	2	• Operational Officer • Waste management operator

No.	Stakeholder	Number of Informants	Status/Position
6	Garbage Insurance Clinic	2	• COO • Officer
7	BuangDisini	2	• Officer • Waste collection officer
8	ILiterlles	2	• Founder • Officer
9	Sorting, Composting, and Recycling House	3	• Secretary • Administrative officer • Operational officer
10	TPS3R	1	• Head of TPS3R
11	Brawijaya University	2	• Head of the Administration and Household Division • Staff
12	Municipal Waterworks	1	• Financial staff
13	Green Therapy Village	3	• Cadre Leader • Community • Administrators
14	Society	1	• Housing cleaning staff
15	Scavenger	2	• Coordinator • Scavenger

Table 1 detailing the informants in this study serves as a methodological transparency tool, highlighting the diversity of actors and institutional positions involved in Malang City's waste management. Without disclosing the personal identities of informants, the information presented is limited to the number and positions of participants to maintain confidentiality and security, minimize social and institutional risks, and uphold research ethical principles without compromising scientific accountability.

This study utilizes the Stakeholder Salience Framework by R. K. Mitchell et al. (1997) as a theoretical basis for analyzing three main attributes: power, legitimacy, and urgency. Each attribute is operationalized as an empirical indicator: power, measured by the actor's ability to influence decisions, resources, and policies; legitimacy, through legal and social recognition; and urgency, based on time pressure and interest in environmental issues. The analysis, conducted using a combination of these three attributes, classifies stakeholders into several categories: dormant, discretionary, demanding, dominant, dependent, dangerous, and definitive stakeholders, helping researchers understand the level of importance of each stakeholder in waste management policy. Primary data were collected through semi-structured interviews lasting 30-60 minutes to explore perceptions and relationships among stakeholders. Field observations and document reviews, including the Malang City waste management standard operating procedures (SOP), the 2024 waste management report, and the city's governance plan, specifically regarding waste management, were also conducted. Interview results were transcribed and analyzed in-depth.

Data analysis used the interactive model of Miles et al. (2020) in four stages: collection, reduction, presentation, and conclusion drawing. Coding was conducted using an a priori approach, grounded in theory and inductive reasoning, used to capture emerging themes from the research findings. Two independent researchers conducted coding, and the results were then compared to ensure consistency and interpretation. The findings were compiled in a stakeholder analysis matrix that demonstrates the relationships among the attributes of power, legitimacy, and the urgency of each actor. The three attributes used (power, legitimacy, and urgency) are

recognized as dynamic and contextual, so the classification and analysis results represent a snapshot of the situation at the time of the research.

3. Results and Discussion

3.1. Stakeholder Identification Based on Attributes

Stakeholder identification was developed within the Stakeholder Salience Framework (J. R. Mitchell et al., 2021). Identification was conducted for each stakeholder to describe their role through three major attribute indicators: power, legitimacy, and urgency. The next step was to place stakeholders into stakeholder classes. To facilitate interpretation, the author attempted to present the findings and discussion based on each stakeholder class. These stakeholder classes are divided into seven: Dormant, Demanding, Discretionary, Dangerous, Dominant, Dependent, and Definitive.

3.1.1. Demanding Stakeholder

The results of this study indicate that the Independent Waste Management Community, Green Therapy Village, TPS3R, PKD House, and Scavengers are stakeholders with a high level of urgency in waste management but low levels of legitimacy and power. Based on the identification of the three attribute levels, these stakeholders are classified as Demanding Stakeholders.

Waste management is highly time-sensitive because its handling requires immediate action. Therefore, a waste management unit at the local level is needed. The actors involved are those who directly interact with and manage waste. Independent waste management communities manage household waste as early as possible. The community has a high urgency to pressure the government to manage waste, as delays in collection and accumulation are causing waste to pile up. This reinforces the claim that the community not only exerts pressure but also changes behavior and becomes more actively involved (Adlin, 2021). The community is not only a waste producer but also a key factor in ensuring the sustainability of the independent waste management system at the household and community levels (Safitri et al., 2024). However, this community participation initiative lacks sufficient legitimacy because it is independent and has little influence on waste management. Communities also have limited access to decision-making and policies, which limit their power over waste management.

This awareness, if implemented collectively and sustainably, will have a significant impact on waste management. As the source of waste, communities that engage in independent waste reduction and management will be strategically positioned (Salsabila et al., 2024). This initiative led to the establishment of the Green Therapy Village as a waste management community. Collective waste management encompasses the interests of the village community. Therefore, if waste issues arise, such as late collection, waste accumulation, and pollution, the Green Therapy Village can address them through organized waste management activities (Mulasari et al., 2024). However, this community lacks the authority to manage waste management policies. Furthermore, its existence is perceived as a community-wide application of environmental values, thus undermining its legitimacy.

At the next level, waste management is carried out at residential waste collection units, specifically the Reduce-Reuse-Recycle Waste Management Facility and the Recycling Compost Sorting House, which not only collect waste but also manage it through composting and sorting. Waste accumulation can lead to various

environmental, social, and health problems. This is what the Reduce-Reuse-Recycle Waste Management Facility and the Recycling Compost Sorting House (RCMS) are attempting to minimize. Furthermore, these two units address the surge in waste sent to landfills by providing timely waste management solutions. There is an urgent need to raise public awareness about the importance of waste management. With effective management, the Recycling Compost Sorting House helps reduce the amount of waste sent to landfills (Budiyarto et al., 2025).

As stated by the Head of the Waste Management Section of the Malang City Environmental Agency in an interview:

> "In 2024, our current waste generation will reach approximately 750 tons per day. However, only about 530 tons of waste will go to landfills, resulting in a reduction of approximately 200 tons per day. Many parties, including facilities such as the Recycling Compost Sorting House and the Reduce, Reuse, and Recycle Waste Management Site, support this reduction process. They play a significant role in reducing the amount of waste going to landfills."

Unfortunately, these two units fall under the Department of Environment's jurisdiction and are limited to direct technical actions in waste management. Consequently, access to decision-making and policy is minimal. Furthermore, the Reduce, Reuse, Recycle Waste Management Site and the Recycling Compost Sorting House are heavily dependent on funding and support from the Department of Environment.

From an environmental policy perspective, waste pickers' urgency can be understood practically: they place real-time demands on authorities due to their operational function (daily collection) and their direct impact on waste flows. Several quantitative studies estimate the emission reductions and landfill load reductions resulting from waste picker activities, a strong argument for including waste pickers as a priority actor in waste management policies (Reis-Filho et al., 2025). Waste pickers contribute a substantial portion of recycled materials (including plastic), thereby reducing the amount of waste entering landfills and reducing emissions associated with final disposal (Cook et al., 2024). Adequate human resources do not match the urgency of scavengers in waste management. Furthermore, scavengers are independent and not tied to any formal institution, so their legitimacy is not supported by existing authority.

The identification of field findings aligns with the view from R. K. Mitchell et al. (1997) that stakeholders who exhibit higher time pressure and interest in environmental issues are classified as Demanding Stakeholders. However, this high level of urgency is not supported by sufficient power to access policy, and the majority of stakeholders in this class do not come from formal institutions with high legitimacy.

3.1.2. Discretionary Stakeholder

Discretionary stakeholders are those with high legitimacy but lack power and urgency. These stakeholders are socially and institutionally recognized as

legitimate stakeholders in waste management but lack the direct authority to exert pressure and demand to influence policy decisions. Their urgency is also low because their role is supporting actors, not as actors who carry out the main operations. The research findings narrow down the stakeholders in this class to include Waste Insurance Clinic, iLitterless, Buangdisini, Regional Drinking Water Company, and University of Brawijaya.

The Waste Insurance Clinic's involvement in various government programs, such as cleanliness campaigns and environmental management, strengthens its legitimacy as an active partner in achieving city cleanliness goals. This legitimacy is further enhanced by the potential for collaboration for greater impact (Prabawati et al., 2023). The Waste Insurance Clinic builds legitimacy in the public's eyes by raising awareness of the importance of good, sustainable waste management and by leveraging the economic value of waste. However, the Waste Insurance Clinic lacks coercive authority to enforce compliance, controls significant financial resources or economic incentives to influence other actors (utilitarian), and holds no symbolic or authoritative position capable of shaping broad policy norms (normative). Its involvement is more participatory and based on voluntary partnerships, providing no structural leverage in the formulation or amendment of waste management policies.

In terms of urgency, the Waste Insurance Clinic's activities are not categorized as urgent because its program focuses more on education, social incentives, and leveraging the economic value of waste rather than on the critical handling of daily waste. Its operational scale is also relatively small, and there is no critical time pressure, so claims and interests do not demand an immediate policy response. This places the Waste Insurance Clinic in the discretionary stakeholder category with strong normative legitimacy but low power and urgency.

Waste management continues to evolve, giving rise to innovations from startups, including iLitterless. Recognition by the local government as a legitimate initiative in waste management demonstrates support for its programs. Through active community involvement in the waste-sorting program, iLitterless builds strong social legitimacy and earns residents' trust (Latanna et al., 2023). Furthermore, literature on program action and evaluation shows that active community involvement and multi-actor partnerships (schools, community organizations, and businesses such as cafes) not only increase the scale of sorting and recycling activities but also add credibility and social license to local programs (Mulasari et al., 2024). However, iLitterless' operational activities are very limited to inorganic waste management specifically for cafes in Malang City, with a relatively narrow scope of partnerships and a limited number of cafes, only 28 compared to the total number of culinary businesses in Malang City, which reaches thousands. The limited scale of these services means that iLitterless lacks coercive or utilitarian power to significantly influence policy decisions.

The innovation, Buangdisini, a mobile application for waste management, demonstrates a modern approach that increases public confidence in its effectiveness (B. Kurniawan et al., 2024). Tangible results from digitalized waste management efforts, such as increased recycling rates and waste reduction, strengthen Buangdisini's position as a legitimate and effective solution (Saptaputra et al., 2023). Again, the existence of startups like this remains very limited in their role and access to demands that influence policy decision-making.

As stated by the Head of the Waste and Hazardous Waste Division of the Malang City Environmental Agency in an interview, he stated:

> "The contribution of these startups is quite helpful in waste management, but to date, we don't have an integrated system with them in policy formulation. Their role is also complementary, small-scale, and not urgent because the scope of services and types of waste they manage are still limited."

They choose to operate independently, unaffected by government policies. This position lacks urgency and can coercively restrict the wider community. Furthermore, limited resources mean that Buangdisini's operational activities focus only on inorganic waste, which is also less urgent in terms of timing.

PDAM holds legitimacy as a local government institution authorized to collect fees. It serves not only as a provider of technical services but also as a legitimate channel and funding mechanism for broader public services (D'Amore et al., 2023). Waste management service financing emphasizes the importance of a credible and transparent retribution mechanism to increase public willingness to pay and ensure sustainable service funding (Shan et al., 2021). However, the involvement of the Regional Water Company (PDAM) is limited to administrative collection functions and does not encompass planning, decision-making, or technical implementation of waste management. This lack of a substantive and operational mandate leaves PDAM without the coercive or utilitarian power to influence waste policy direction, and it does not face the time pressures or emergencies inherent in on-the-ground waste management. Therefore, despite its formal legitimacy, PDAM is in a position of low power and urgency.

As a higher education institution, University of Brawijaya plays a dual role: as a location for implementing waste management practices (an environmentally friendly/zero-waste campus) and as a center for research, education, and community empowerment (Rodríguez-Guerreiro et al., 2024). Its role as an educational institution is strong, educating the wider community about the importance of waste management. Furthermore, UB can provide academic input through research findings and scientific reviews on waste management policies (El-Halwagy, 2024). These contributions are limited to scientific studies, not comprehensive technical waste management operations, so UB has a low level of urgency. Its influence is also limited as an educational institution, as it promotes public awareness of waste management but does not directly formulate policies. Its power is limited to academic activities.

The roles and interests of stakeholders in the Discretionary Stakeholder class reinforce the view of R. K. Mitchell et al. (1997) that these stakeholders have dominance in legitimacy attributes, as they consist of legitimate institutions with social and legal legitimacy. However, this high level of legitimacy does not seem to provide sufficient power to influence comprehensive waste management decisions and policies. This is because these stakeholders do not have a pressing need because the waste management units they operate are small-scale.

3.1.3. Dominant Stakeholder

Stakeholder groups with high power and legitimacy but little urgency in waste management, such as the Malang City Local People's Representative Council and the Malang City Development Planning Agency (Bappeda), are classified as Dominant Stakeholders.

In accordance with Bappeda's function as a strategic planner integrating various development aspects, it has full authority to formulate development plans and waste

management policies, and to enforce its decisions across the overall policy (Yusriadi et al., 2023). Its influence is significant in providing policy recommendations to the local government, including the development of new waste management policies.

As stated by the Head of Planning, Control, and Evaluation at the Malang City Regional Development Planning Agency:

> "The Regional Development Planning Agency's role as a planning body is to formulate development plans. The preparation of these planning documents also goes through a lengthy process using data and research, ensuring that our policy recommendations are appropriate and effective."

The authority of the Regional Development Planning Agency also includes evaluating program implementation. This function is supported by valid regulations governing the Regional Development Planning Agency's role in regional development governance. Bappeda (Regional Development Planning Agency) has the technocratic capacity to facilitate the integration of climate policy into local planning, which adds a dimension of technical legitimacy to this institution.

Although the Regional Development Planning Agency (Bappenas) plays a strategic role in regional development planning, the urgency of waste management within the Bappenas is relatively low because waste issues are not a primary thematic focus in the city's macro-development planning framework. Structurally, the National Development Planning Agency does not have a dedicated work unit or technical team for waste management; waste issues are considered a derivative of the environmental or infrastructure agenda, rather than a dedicated planning forum. This situation indicates that, while the Bappenas has formal power and legitimacy, its time sensitivity and substantive pressure on waste management issues are relatively low, placing it as an actor with a low level of urgency.

The significant power in decision-making and in shaping waste management policy changes positions the Malang City Council (DPRD) as an influential stakeholder. As a regional legislative body, it plays a strategic role in environmental governance by having the formal authority to formulate policies and oversee their implementation. The Local People's Representative Council has a dual function as a policy-maker and policy-controller on environmental issues, especially when policies require regulatory support and regional budget allocation (Sondakh & Sondakh, 2025). The Local People's Representative Council has the power to oversee the budget allocated for waste management, a key factor in the successful implementation of a circular economy in developing cities. Strong legal and social legitimacy enhances the Local People's Representative Council's position in waste management. However, the urgency of the Local People's Representative Council in waste management is relatively low because waste issues are not a primary issue in the multi-sectoral legislative agenda. The minimal direct involvement of the Local People's Representative Council in operational activities and in the daily handling of waste also reduces the time pressure and urgency of the issues discussed in Local People's Representative Council meetings. Furthermore, the Local People's Representative Council's periodic, legislative-cycle work orientation tends to make its response to waste issues reactive and dependent on executive initiatives. This situation, despite the Local People's Representative Council's high formal power and legitimacy, places it at a low level of urgency.

Identification and analysis of stakeholders at the Regional Development Planning Agency and the Local People's Representative Council support the view from R. K. Mitchell et al. (1997) that stakeholders fall into the dominant stakeholder class. This class places stakeholders with high power and legitimacy in support of their positions, but with minimal urgency because they are not directly involved in waste management operations. They are top managers who formulate policies, not the technical aspects of management in the field.

3.1.4. Dependent Stakeholder

Research was also conducted to identify stakeholders in this category, those with a high level of urgency and legitimacy in waste management. However, their position is not sufficiently strengthened by the power to influence policy decisions. It was found that the Malang Waste Bank (BSM) and the Supit Urang Landfill Management Unit (UPT TPA) are dependent stakeholders.

The Malang City Government has given BSM special recognition as an institution that assists in managing municipal waste and as an effort to reduce waste generated at the landfill, particularly inorganic waste. Through public education programs, BSM raises public awareness of the importance of proper waste management, thereby gaining broad community support. BSM is expected to act as a catalyst for behavioral change, increasing awareness of waste management by leveraging its economic value. A national review of waste bank applications indicates that waste bank initiatives have significantly improved source sorting and household empowerment, but their impact remains limited due to challenges in coordination and local capacity.

Despite being recognized by the Malang City government as a partner in supporting inorganic waste management, BSM has relatively little power because it lacks formal authority to formulate policies, control public resources, or establish operational standards for municipal waste management. BSM's reliance on government support and voluntary community participation limits its capacity to influence policy direction through coercion or utilitarian means. Furthermore, its local operational scale, fragmented waste bank network, and limited access to funding mechanisms and strategic decision-making forums mean that BSM's influence is more functional and operational than structural. This reflects BSM's low level of power in Malang City's waste management policy.

Final waste management is comprehensively carried out by the downstream waste management center, the Supit Urang Landfill (TPA). Currently, waste management in Malang City still relies on the Supit Urang landfill as the primary processing site for the majority of the city's waste. The landfill receives 600 tons of waste daily and is at the forefront of technical waste management in Malang City. This significant role is supported by landfills also implementing modern technologies, including sanitary landfill systems, composting, shorting, and a Leachate Treatment Plant (LTP). Supporting a circular economy, where waste is reused for public benefit, strengthens the urgency of landfills as actors in waste management in Malang City (Mukhlis et al., 2025). The presence of modern infrastructure and public education programs at landfills not only supports the legitimacy of the management institution but also increases efficiency and public acceptance (Islami et al., 2023). Landfills are increasingly playing a strong role as agents of social change by raising awareness of sorting waste, composting, and reducing waste.

This is supported by the statement of the Head of the Waste and Hazardous Waste Division of the Malang City Environmental Agency (DLH) in an interview:

> "The legitimacy of the Supit Urang Landfill is formally recognized through regulations and policies. The operational function of the Supit Urang Landfill also adds to its legitimacy. Community support is also a crucial factor in establishing the legitimacy of the Supit Urang Landfill. Through educational and outreach programs, the landfill has successfully encouraged the community to actively participate in waste management."

Although the Supit Urang Landfill Technical Implementation Unit (UPT TPA) has high urgency and legitimacy as the primary technical actor in downstream waste management, its power is limited by its lack of structural authority in policy decision-making. As a technical implementation unit under the Department of Environment, the landfill operates within a hierarchical bureaucratic framework, lacking the authority to formulate policies, determine strategic budget allocations, or set the direction for the city's waste management system development. Dependence on decisions at the agency and city government levels limits its capacity to influence policy in a coercive and utilitarian manner, and the landfill's dominant orientation toward technical-operational activities is implementation-oriented rather than strategic, resulting in its low power.

In accordance with R. K. Mitchell et al. (1997) view, the Malang Waste Bank and the Sumpit Urang Landfill Technical Implementation Unit (UPT TPA) are classified as Dependent Stakeholders. While their roles and interests meet the attributes of high urgency and legitimacy, their existence as institutions under the auspices of the Department of Environment (DEM) limits their power to influence policy.

3.1.5. Definitive Stakeholder

The definitive class is a key stakeholder in waste management policy. This stakeholder's role and importance meet the three attribute claims. The Malang City Department of Environment is the only stakeholder that meets the definitive class criteria.

The Department of Environment plays a crucial role in policy formulation and implementation, enabling it to determine waste management strategies. The Department of Environment has legal and administrative authority to determine waste levies, establish cross-sector partnerships, and impose sanctions for violations (J. R. Mitchell et al., 2021). In terms of oversight, the Department of Environment has the authority to conduct periodic monitoring and evaluation. It can identify emerging problems and take necessary actions to improve the existing system. Furthermore, the Department of Environment has absolute financial authority derived from Malang City's waste levy revenue. It is responsible for formulating, implementing, and evaluating waste management policies. Policy development takes into account various perspectives: community needs, environmental impacts, and potential economic development.

The Department of Environment holds strong legitimacy as the government agency directly responsible for waste management in Malang City. As a concrete manifestation of waste management operational activities derived from legal authority, the DLH is directly responsible for monitoring and evaluation, demonstrated by transparency and public accountability, thereby strengthening social legitimacy (Lestari et al., 2024). The DLH's high urgency in waste management policy is that its operations encompass comprehensive activities from prevention to final processing, including the provision of TPS infrastructure and waste

management facilities such as TPS3R and Recycling Compost Sorting Houses (T. A. Kurniawan et al., 2023) Furthermore, the Department of Environment's institutional capacity also serves as an educator, monitor, and facilitator in financing mechanisms, oriented towards the successful implementation of waste management policies. The Department of Environment places greater urgency on the technical handling of waste management by increasing collective public awareness of environmental protection (T. A. Kurniawan et al., 2023).

3.1.6. Dormant and Dangerous Stakeholder

Based on field identification results, this study did not identify any actors specifically categorized as dormant or dangerous. The absence of dormant stakeholders in this policy indicates that nearly all influential actors in Malang City already possess formal legitimacy within the waste management structure. Meanwhile, the lack of dangerous stakeholders indicates that no coercive conflicts of interest or threats to policy stability were found during the implementation process within the research focus. This reflects that interactions between actors in waste management in Malang City remain within controlled legal and administrative boundaries, despite the unequal distribution of attributes among the actors. The analysis conducted to identify the attributes of each stakeholder in this waste management policy can be presented in Table 2.

Table 2. Stakeholder Analysis Based on Attributes by R. K. Mitchell et al. (1997)

No.	Stakeholder	Attribute		
		Power	Legitimacy	Urgency
1	Department of Environment of Malang City	**High**	**High**	**High**
		Have the authority to formulate policies	Legitimacy of the role as a government institution	Urgent to respond to waste management challenges.
2	Malang City Regional Development Planning Agency	**High**	**High**	**Low**
		Prepare planning and allocation of funds	Accepted as a legitimate planning authority.	No urgency to respond to claims
3	Local People's Representative Council of Malang City	**High**	**High**	**Low**
		Regulating environmental regulations	Considered legitimate as a representative of the people.	No urgency to respond to regulatory needs
4	UPT TPA Supit Urang	**Low**	**High**	**High**
		Operating under the authority of the Department of Environment	Accepted as an official entity in waste management	The time sensitivity and importance of waste management are very high.
5	Waste Bank	**Low**	**High**	**High**
		Operates under the guidance of the Department of Environment	Accepted as a unit of waste reduction	Urge to increase recycling participation
6	Garbage Insurance Clinic	**Low**	**High**	**Low**
		It has no coercive, utilitarian, and normative power.	Have legality in operating and support from the Department of Environment	It is not urgent to operate on a small scale sorting.
7	iLitterless	**Low**	**High**	**Low**
		Coercively, it is not possible to carry out restraint because the scale of waste management is small.	Accepted as a positive initiative	There is no urgency for waste management to be carried out immediately
8	Buangdisini	**Low**	**High**	**Low**
		Coercively, it is not possible to carry out restraint because the scale of waste management is small.	Considered an innovation in waste management	There is no urgency for waste management to be carried out immediately

No.	Stakeholder	Attribute		
		Power	Legitimacy	Urgency
9	Municipal Waterworks	**Low**	**High**	**Low**
		Does not have a significant interest in waste management	Written regulations are established as a legitimate institution	There is no urgency in waste management
10	Brawijaya University	**Low**	**High**	**Low**
		The interests of educational institutions are limited to only encouraging public awareness to manage waste.	Accepted as a credible educational institution	Lack of pressure in waste management
11	The Reduce-Reuse-Recycle Waste Processing Facility (TPS3R)	**Low**	**Low**	**High**
		Waste management on a small scale, natural resources depend on external parties	Operates under the guidance of the Department of Environment	The front line of the body's waste management is urgently needed
12	Recycling Compost Sorting House	**Low**	**Low**	**High**
		Small scale waste management and Natural Resources depend on the Department of Environment	Operates under the guidance of the Department of Environment	As a landfill waste reduction unit, it can create pressure for waste management.
13	Sukun Green Therapy Village	**Low**	**Low**	**High**
		Influence and interests are not urgent because they are on a community scale.	Considered to be in accordance with environmental values but on a community scale	Urge to reduce waste, increase awareness to manage waste

To strengthen the analysis's justification, this study adopts the grouping principle used by Liu et al. (2022). Liu and colleagues assert that this combination of attributes can be used operationally to distinguish "key stakeholders" who exert dominant influence on the policy system from "marginal stakeholders" who play a more limited but still important role in the implementation context. They emphasize the importance of considering the level of involvement and actual capacity for influence in the field, not just formal institutional position. Therefore, the stakeholder classification in this study, which produces the categories of dependent, dominant, and definitive stakeholders, is based not only on structural position but also on the intensity of roles and interests observed during data collection.

This analysis of stakeholder grouping based on stakeholder class can be seen in the Table 3.

Table 3. Stakeholder Attributes and Classes (R. K. Mitchell et al., 1997)

Group	Stakeholder Types Based on Attributes	Stakeholder
Latent Stakeholders (Hidden Stakeholders)	Dormant Stakeholders (High Power, Low Legitimacy and Urgency)	-
	Demanding Stakeholders (High Urgency, Low Power and Legitimacy)	• Reduce, Reuse, Recycle (3R) Waste Processing Facility • Recycling Compost Sorting House • Green Therapy Village • Community • Scavengers
	Discretionary Stakeholder (High Legitimacy, Low Power and Urgency)	• Waste Insurance Clinic • iLitterless • Buangdisini • Municipal Waterworks • University of Brawijaya

Group	Stakeholder Types Based on Attributes	Stakeholder
Expectant Stakeholder (Stakeholder Expectations)	Dangerous Stakeholder (High Power and Urgency, Low Legitimacy)	-
	Dominant Stakeholder (High Power and Legitimacy, Low Urgency)	• Local People's Representative Council • Regional Development Planning Agency
	Dependent Stakeholder (High Urgency and Legitimacy, Low Power)	• Waste Bank • UPT TPA Supit Urang
Definitive Stakeholder (Stakeholder who determines))	Definitive Stakeholder (Power, Legitimacy, and High Urgency))	• Department of Environment

Source: *Research Processed, 2025*

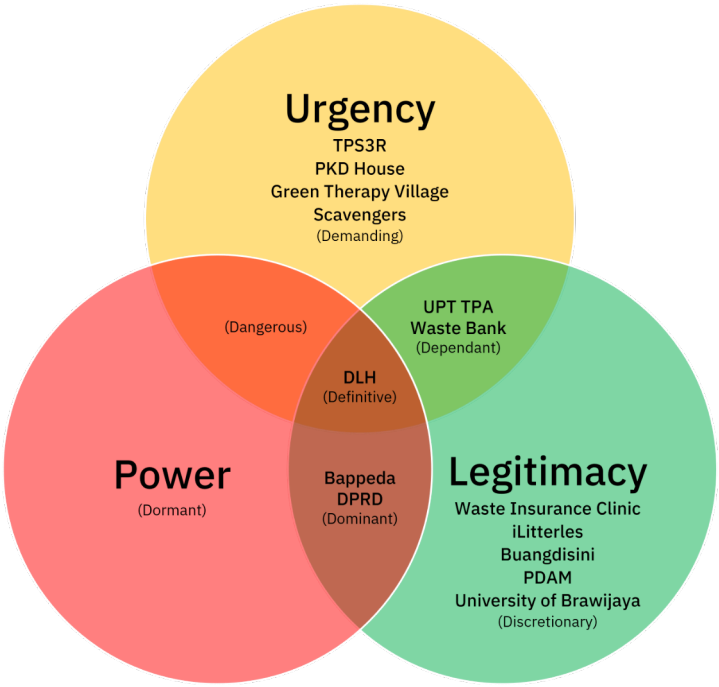

Figure 1. Stakeholder Attributes and Classes (R. K. Mitchell et al., 1997)

Source: *Research Processed, 2025*

An analysis of stakeholder configurations in waste management policies reveals governance failures stemming from a misalignment between the distribution of formal power and the urgency of field operations. Dominant stakeholders with access to policy change are not supported by the pressing urgency of day-to-day waste management, resulting in policies that tend to be administrative and less adaptive. Conversely, stakeholders with high legitimacy and urgency lack sufficient access to the policy formulation process. This imbalance creates a structural gap between policy formulation and implementation, explaining why waste management governance is less responsive, lacks substantive collaboration, and fails to effectively integrate the needs and capacities of field actors.

Substantively, this situation does not support the principles of collaborative governance or multi-stakeholder governance. Collaboration, which should be supported by a balanced distribution of roles, knowledge exchange, and inclusive decision-making mechanisms, is hampered by the dominance of formal actors and limited deliberative space for field actors. The established governance is hierarchical and sectoral, and the potential for cross-sectoral collaboration in addressing complex waste issues has not been optimally realized.

4. Conclusion

The configuration of stakeholder interests in Malang City's waste management policy reveals a structural imbalance among power, legitimacy, and urgency, resulting in a failure of coordination in governance. Formal power is concentrated in dominant stakeholders with access to decision-making but lacks the operational urgency to address daily waste issues. Conversely, stakeholders with high legitimacy have the potential to be part of the solution to waste problems, while waste reduction agencies lack sufficient power to influence policy. This imbalance ultimately leads to a structural disconnect between policymakers and implementers. This situation creates an implementation gap, where policies are less responsive to the technical and operational dynamics of day-to-day waste management.

This study seeks to emphasize the need for institutional interventions that are not only technical but also conceptual, to reconfigure stakeholder attributes. The findings indicate that the failure of waste management governance is not solely due to weak collaboration but also to an imbalance in the distribution of attributes (power, legitimacy, and urgency). The development of a formal-informal multi-stakeholder platform under the auspices of the Environmental Agency (DLH) is not simply a coordination mechanism but an instrument for rebalancing stakeholder attributes. Theoretically, these findings extend the application of the stakeholder salience framework, demonstrating that salience is not static and can be engineered through institutional design that empowers stakeholders with high legitimacy and urgency. In the context of waste governance, this approach offers a conceptual contribution, suggesting that the effectiveness of public policy can be enhanced through interventions that consciously correct attribute imbalances, thereby opening up more substantive and sustainable participation for field actors.

The analysis in this study was conducted in a single local policy context, so the findings are contextual and cannot be generalized to regions with different governance characteristics. Attribute mapping reflects the situational conditions during the study period but does not capture the dynamics of long-term changes in power and interests. Therefore, further research is recommended to develop a longitudinal or comparative approach across regions.

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