

Collaborative Governance in Urban Waste Management: Policy Evaluation of Malang City in the Post-Pandemic SDGs Era

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Abstract

This study examines the dynamics of collaborative governance in the implementation of waste management policy in Malang City, Indonesia. Despite the city's formal commitment to community-based waste management through Local Regulation No. 7/2021, collaboration remains limited in practice. Using a qualitative case study approach, data were collected through semi-structured interviews, focus group discussions, field observations, and document analysis involving key stakeholders, including government officials, community actors, and informal sector workers. Findings reveal four critical barriers to effective collaboration: (1) asymmetrical power relations that restrict community involvement in policy design; (2) fragmented institutional arrangements with unclear coordination mechanisms; (3) strong bureaucratic control that limits facilitative leadership; and (4) weak participatory processes characterized by symbolic dialogue, low shared understanding, and declining public ownership. These constraints prevent the alignment of policy intentions with on-the-ground realities and hinder the achievement of sustainable development goals (SDGs) and circular economy targets. The study proposes a shift from a policy control model to a policy co-creation approach. Key policy implications include institutionalizing multi-stakeholder forums, formally recognizing informal waste actors, empowering local innovation through facilitative leadership, and building shared digital infrastructure for feedback and monitoring. These reforms are essential for transforming waste governance from symbolic participation into meaningful collaboration. By embedding co-creation into policy practice, Malang City can enhance its environmental performance while promoting inclusive, adaptive, and sustainable urban development.

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1. Introduction

Urban waste management has emerged as a vital component of sustainable development due to its close connection with resource consumption, environmental degradation, and the effectiveness of urban governance. Cities, although occupying only 2% of the global land area, are responsible for generating over 70% of global waste, making efficient waste management systems essential for achieving the Sustainable Development Goals (SDGs) (Veckalne & Tambovceva, 2021). The urgency of this issue is further heightened in rapidly urbanizing regions, where infrastructure systems—including solid waste—are deeply interdependent and increasingly strained (Jayasinghe et al., 2023). In the post-pandemic recovery context, resilient urban planning that includes effective waste management is now seen as critical to

ensuring public health, environmental sustainability, and disaster preparedness (Zou et al., 2022); (Afrin et al., 2021). This is particularly relevant for Indonesia, one of the countries most vulnerable to the effects of climate change, where urban areas continue to struggle with institutional, infrastructural, and financial barriers to effective solid waste governance (Breukelman et al., 2019). Strengthening waste management systems is thus not only an environmental imperative, but also a critical path toward inclusive, climate-resilient urban development. The growing complexity of environmental problems, including mounting municipal waste and the misalignment between policy and implementation, has pushed cities to revisit their waste management strategies. Malang City, East Java, is no exception, having experienced a steady increase in daily waste generation—from 677 tons in 2021 to more than 880 tons by the end of 2023 (DLH Malang, 2024).

Despite the issuance of Malang City Regulation No. 7 of 2021 on Waste Management, which replaced the outdated Regulation No. 10 of 2010, the practical effectiveness of this regulatory framework remains uncertain. Although it aims to strengthen upstream waste reduction and promote the 3R principles (Reduce, Reuse, Recycle), implementation on the ground still heavily relies on end-of-pipe strategies, with minimal systemic shift in infrastructure and public behavior (Wati et al., 2021). Similar issues have been observed in other urban centers, such as Jakarta and Sukabumi, where poor socialization of policies and limited stakeholder engagement have hindered sustainable waste practices (Verawati & Tuti, 2020); (Widyastutie et al., 2022).

In the case of Malang, the Supiturang Final Processing Site (TPA) has remained overwhelmed, with reports of waste overflow in early 2024, signaling deeper logistical inefficiencies and behavioral gaps in waste segregation and reduction at the source (Ummamah et al., 2024). Past studies in Indonesia, such as those by Widyastutie et al. (2022), have typically evaluated policy effectiveness through static models like the CIPP (Context, Input, Process, Product) approach. While helpful in measuring outcomes, such models often neglect the complex interplay between governance dynamics, actor networks, and institutional flexibility.

This gap in perspective is especially problematic in decentralized systems like Indonesia, where local autonomy complicates policy coordination and effectiveness (Artha et al., 2023). Consequently, a more collaborative and participatory framework is needed to improve municipal waste policy implementation and align local actions with national sustainability goals.

The novelty of this study lies in its application of the Collaborative Governance Framework (Ansell & Gash, 2008) to evaluate the implementation of waste policy in Malang City—an approach not yet widely adopted in Indonesian environmental governance studies. Unlike conventional top-down or outcome-focused evaluations such as the CIPP model, this framework allows for an analysis of how trust-building, shared motivation, and institutional arrangements shape policy performance in decentralized settings like Indonesia. Malang serves as a strategic case due to its dual challenges: high urban waste generation and limited landfill capacity, alongside progressive regulatory updates that offer a testbed for policy experimentation.

This research incorporates primary data from field interviews with government officials, local NGOs, and community waste initiatives, supported by documentary analysis of environmental reports and participatory observations from 2023 to early 2025. By integrating contemporary themes such as circular economy principles, post-pandemic recovery, and behavioral transformation, this study bridges empirical practice with evolving global sustainability discourse.

The core objective is to critically assess the effectiveness of Malang's municipal waste policy by identifying institutional gaps, social barriers, and missed opportunities for inclusive innovation. The study ultimately offers alternative governance models that are adaptive, collaborative, and scalable, supporting the achievement of SDG 11 (sustainable cities and communities) and SDG 12 (responsible consumption and production). This contribution is especially timely given Indonesia's national target of achieving 30% waste reduction and 70% waste handling by 2025—a goal that cannot be met without systemic shifts and robust multi-stakeholder engagement.

2. Methods

This research adopts a qualitative case study approach to examine how collaborative governance is practiced in the implementation of waste management policy in Malang City. Positioned within an interpretive paradigm, the study seeks to understand how various actors—ranging from municipal institutions and local communities to informal workers and grassroots leaders—interact within the policy framework of Perda No. 7/2021 on Waste Management. The focus is not only on institutional arrangements but also on perceptions, engagement patterns, and the relational dynamics that shape collaborative outcomes.

Data Collection

Data were collected between mid-2023 and early 2024 using several complementary methods. These include semi-structured interviews with key stakeholders, focus group discussions (FGDs), field observations, and policy document analysis. A total of twenty-one interviews were conducted with informants from government agencies, community-based environmental actors, youth organizations, religious groups, waste bank networks, and informal recyclers. Two FGDs were held with environmental cadres and community activists from urban neighborhoods. Observations were conducted at several waste management sites and neighborhood facilities, while relevant policy documents, planning reports, and regulatory guidelines issued from 2021 to 2024 were reviewed as secondary data.

Informants were selected through purposive sampling, based on their involvement and experience in waste management efforts either at the strategic, operational, or grassroots level. This approach ensured diverse perspectives from both institutional and community-based actors.

Analytical Framework and Approach

The study draws conceptually on the Collaborative Governance Framework proposed by Ansell and Gash (2008), which highlights four key dimensions of collaboration: (1) starting conditions, (2) institutional design, (3) leadership, and (4) collaborative process. These dimensions informed both the design of interview questions and the subsequent thematic analysis of the data. All interview and FGD transcripts were transcribed verbatim and subjected to a thematic analysis. The analysis involved identifying patterns and recurring concepts that corresponded with the collaborative governance dimensions. This process was conducted through iterative readings, memo writing, and comparative analysis across data sources to capture both convergent and divergent viewpoints. The use of qualitative data analysis software enhanced the ability to organize, review, and refine emerging themes systematically, ensuring consistency across data sets. The findings presented in this article are the result of this analytical process, which distilled key issues such as asymmetrical power relations, lack of institutional coordination, limited facilitative leadership, and weak participatory processes.

3. Results and Discussion

This section presents the research findings on the implementation of Malang City's waste management policy, interpreted through the four dimensions of Collaborative Governance: starting conditions, institutional design, leadership, and collaborative process. Thematic analysis revealed several critical patterns that reflect the dynamics, challenges, and opportunities for multi-stakeholder collaboration in urban waste governance.

Starting Conditions: Unequal Power and Fragmented Trust

The effectiveness of collaborative governance in environmental policy, particularly in the context of municipal solid waste management, is heavily influenced by the initial conditions under which stakeholders begin their interactions. In the case of Malang City, the starting conditions for collaboration are marked by asymmetrical power relations, low interdependence, and fragmented trust between government actors and non-governmental stakeholders. These findings mirror the assertion by Ansell and Gash (2008) that unfavorable starting conditions—such as power imbalance and lack of trust—can significantly hinder the development of genuine collaborative relationships and mutual accountability.

Field data gathered from interviews and focus group discussions reveal a pervasive perception that the policy-making space is dominated by governmental actors, particularly the Environmental Service (DLH), which retains full jurisdiction over the formulation,

implementation, and evaluation of waste management policy in the city. While community-based organizations (CBOs), neighborhood-level waste banks, and environmental volunteers are recognized within the policy documents, their actual participation in strategic decision-making processes remains marginal. One informant from a local environmental NGO stated:

“We are usually only invited during public hearings, but not involved in the planning phase. It feels more like formality than true collaboration.” (Community Leader, Lowokwaru)

This quotation underscores the symbolic nature of participation that many community actors experience. They are often involved in public hearings or socialization events, but rarely invited to co-create solutions or contribute meaningfully to agenda-setting. Such conditions reinforce hierarchical dynamics, where the government retains central authority and community actors are positioned as passive recipients rather than equal partners.

The NVivo analysis supports this narrative, with 18 coded references appearing under the theme *“Dominasi Pemerintah dalam Pengambilan Keputusan”* across nine different informants. These references illustrate the persistence of top-down governance styles in waste management, despite formal commitments to participatory and inclusive practices outlined in Malang City Regulation No. 7 of 2021. The lack of institutional mechanisms for co-planning and shared governance leads to a disconnect between policy intentions and community expectations.

Further compounding the issue is the fragmentation of trust among stakeholders, particularly from citizens toward the city’s waste management services. Trust is a foundational element in collaborative governance—it enables stakeholders to take risks, share resources, and engage in long-term commitments. However, in Malang, this trust is repeatedly eroded by inconsistencies in service delivery, especially regarding the management of sorted household waste. Multiple respondents reported that even after separating organic and inorganic waste at the household level, municipal waste collectors often mix them again during collection, nullifying their efforts and discouraging future participation. One waste bank volunteer from Blimbing stated:

“Even when we separate organic and inorganic waste, the garbage truck mixes everything again. It makes us feel our efforts are meaningless.”

This experience is not isolated. Fourteen sources and more than 30 coded segments highlighted similar frustrations. Word frequency analysis conducted through NVivo indicated repeated usage of terms such as *“percuma”* (useless), *“dicampur lagi”* (mixed again), and *“tidak konsisten”* (inconsistent), signaling a widespread sense of disillusionment. The failure to maintain operational coherence in waste handling contributes to a breakdown in the reciprocal expectations necessary for collaboration to thrive. When communities see that their contributions are ignored or undone by the system, they are less likely to remain engaged in future initiatives.

In addition, information asymmetry contributes to the poor starting conditions. Many community informants were unaware of the provisions outlined in Perda No. 7/2021 or the mechanisms by which they could be actively involved. The lack of sustained public education and dialogic engagement has created a gap not only in understanding but also in perceived legitimacy of the government’s environmental efforts. In this context, trust is not only a behavioral issue but also a structural outcome of disengaged governance.

Importantly, this situation reflects a form of tokenism in participatory governance, where involvement is limited to consultation without redistribution of decision-making power. Such a model contrasts with true collaboration, which requires shared ownership, mutual respect, and iterative learning. The initial power imbalance and the lack of mechanisms to counterbalance it—such as the empowerment of local waste actors or creation of multistakeholder councils—have contributed to a climate where trust is not only fragile but unevenly distributed.

From a theoretical perspective, these findings resonate with Emerson et al. (2012), who argue that the collaborative process is unlikely to succeed if it begins under conditions of

severe distrust and dominance. In these contexts, there is often a need for pre-collaborative capacity building, including confidence restoration, trust-building workshops, and transparent dialogue mechanisms, before genuine joint decision-making can occur.

While there are isolated efforts to bridge these divides—such as neighborhood-level green initiatives, school-based composting, or community waste banks—their limited integration into city-level policy architecture diminishes their transformative potential. These initiatives could serve as fertile ground for bottom-up innovation and collective agency, but only if recognized and elevated through facilitative institutional design.

In summary, the starting conditions for collaborative governance in Malang City's waste management are significantly constrained by top-down institutional norms, operational inconsistencies, and community distrust. These conditions not only limit the space for co-production but also foster disengagement and policy resistance. Moving forward, rebuilding trust and redistributing power must be prioritized to improve collaborative potential and achieve meaningful environmental outcomes.

Institutional Design: Limited Inclusivity and Coordination Mechanisms

A critical dimension in the implementation of collaborative governance is the design and structure of institutions that enable inclusive engagement, shared decision-making, and coordinated action. In theory, Malang City Regulation No. 7 of 2021 affirms the principles of public participation, upstream waste reduction, and environmentally sound practices. However, the institutional reality on the ground suggests a significant disconnect between **policy intentions and operational mechanisms**.

Field data and thematic coding reveal that the institutional design of Malang's waste management system remains fragmented and insufficiently integrated, particularly in its coordination between actors and across levels of governance. This fragmentation is manifested in two primary forms: the absence of inclusive coordination platforms, and the lack of formal integration for community and private-sector actors into the city's waste ecosystem.

Despite the formalization of the 3R principles—reduce, reuse, recycle—and the establishment of environmental cadres (*kader lingkungan*), the structures supporting their participation are not institutionalized in a way that allows for **strategic coordination** with city agencies. Community groups often operate in silos, with limited guidance, monitoring, or feedback loops from the Malang City Environmental Service (DLH). For instance, neighborhood-based cadres involved in waste education and separation efforts report that while they are expected to run community programs, they are seldom invited to planning meetings or provided with sufficient resources.

“Kami diminta bikin program lingkungan di kampung, tapi DLH jarang hadir. Koordinasi kadang hanya lewat surat atau grup WA.” (Informan 08, Kader Lingkungan Lowokwaru)

This quote encapsulates the operational disconnect. Communication is informal, irregular, and lacking depth. The expected synergy between community actors and formal institutions is instead replaced by a transactional mode of engagement, wherein local initiatives are tolerated, but not supported or scaled up. NVivo coding showed 10 recurring references under the node *“Ketiadaan forum kolaboratif permanen”*, and 8 references under *“Program masyarakat berjalan sendiri”*, highlighting how these groups often act without structured institutional support.

The problem extends to horizontal coordination among departments and actors. DLH, as the lead agency, holds primary responsibility for waste logistics, yet other departments such as the sanitation unit, neighborhood administrations (*kelurahan*), and schools operate semi-autonomously with limited cross-sectoral alignment. In many cases, environmental programs launched by schools or pesantren are not linked to DLH's targets or database, leading to duplicative or inconsistent outcomes. This lack of interdepartmental synergy contributes to inefficiencies and missed opportunities for policy coherence.

On the other hand, the vertical integration of actors across different governance levels also suffers from weak institutional scaffolding. Waste bank networks and scavenger cooperatives, for example, operate independently with minimal legal or technical recognition from the city government. These actors play vital roles in waste sorting, recycling, and education, yet are not

included in regulatory frameworks or eligible for municipal incentives. One leader of a scavenger group shared:

"Kami kerja bantu bersihkan sampah, tapi secara hukum kami tidak diakui. Kami tidak punya akses ke program DLH atau bantuan alat." (Informan 16, Ketua Koperasi Pemulung Blimbing)

This exclusion reflects what Emerson and Nabatchi (2015) describe as a failure to establish "principled engagement"—a condition in which stakeholders are recognized, valued, and given structured roles within a collaborative process. Without formal recognition or pathways for integration, these grassroots actors remain peripheral, reducing the potential for systemic transformation.

The lack of institutional clarity also contributes to overlapping roles and blurred responsibilities, especially at the neighborhood level. Interviews revealed that several community programs are subject to conflicting instructions from multiple agencies, with no clear protocol for resolving overlaps. For example, residents involved in the "Kampung Iklim" initiative noted confusion when directives from DLH and the local *kelurahan* office diverged, particularly regarding which bins to use and how waste should be categorized.

"Pernah DLH bilang sampah dipilah 3 jenis, tapi kelurahan cuma siapkan dua tempat sampah. Jadi warga bingung." (Informan 11, Ketua RT)

This situation underscores a coordination gap both at the operational and communication levels. Even when community willingness is strong, the absence of a unified implementation framework renders efforts fragmented and unsustainable. The presence of multiple stakeholders is not enough; effective collaboration requires structures that align their actions through shared standards, schedules, and communication channels.

Moreover, document analysis reveals that monitoring and evaluation mechanisms related to institutional collaboration are minimal. Perda No. 7/2021 mentions community participation but does not establish performance indicators or feedback systems to assess the depth and quality of such involvement. This regulatory silence enables tokenistic participation and prevents the development of learning-based institutions, which are central to adaptive governance.

Overall, the findings point to a systemic weakness in institutional design that prevents the realization of inclusive and coordinated waste governance. While the policy rhetoric is inclusive, its implementation suffers from bureaucratic compartmentalization and normative inertia. Without significant institutional reform, the collaboration envisioned in policy documents is unlikely to materialize into practice.

To address these shortcomings, Malang City must consider creating permanent multi-stakeholder waste governance forums, supported by legal mandates, operational protocols, and dedicated resources. These forums should incorporate actors from government, community, private sector, and academia, and serve as a platform for continuous dialogue, co-design, and accountability. In doing so, the city can move from fragmented implementation to coordinated collaboration, making waste management not only more efficient but more democratic and sustainable.

Leadership: Strong Bureaucratic Control, Weak Facilitative Leadership

Leadership plays a pivotal role in shaping the effectiveness of collaborative governance, particularly in contexts where policy success is highly dependent on multi-actor coordination and community engagement. In Malang City's waste management ecosystem, the dominant leadership model is characterized by bureaucratic control and vertical command, with limited facilitative capacity to bridge diverse stakeholder interests and foster co-creation.

The Environmental Service (Dinas Lingkungan Hidup, DLH) serves as the principal policy-making and implementing agency for waste-related programs in the city. Evidence from interviews and document analysis affirms that DLH has established strong administrative control over the issuance of policies, infrastructure planning, and waste collection operations. However, this centralization of authority has not been matched by facilitative leadership qualities—those necessary to enable collaborative problem-solving, adaptive

experimentation, and stakeholder empowerment. Several respondents noted that while DLH effectively disseminates instructions and targets, it rarely engages in interactive processes that allow for joint agenda-setting or policy innovation. Community members and waste bank leaders frequently characterized their relationship with DLH as "transactional," emphasizing the one-way flow of information and the lack of room to adapt or negotiate. An environmental cadre from Lowokwaru remarked:

"Kami hanya menerima perintah dari DLH. Tidak ada ruang untuk diskusi tentang masalah di lapangan atau usulan dari warga." (Informan 06)

This finding aligns with the top-down model of leadership commonly found in bureaucratic systems, where leadership is exercised through rule enforcement rather than dialogue, learning, or capacity building. NVivo analysis identified 14 coded references under the node *"Kepemimpinan birokratis"*, reflecting the widespread perception of rigid, instruction-based governance.

Such a model may ensure short-term administrative compliance, but it inhibits adaptive governance, particularly in a complex and rapidly changing domain like urban waste management. The lack of flexibility also discourages innovation at the grassroots level, where context-specific solutions often emerge. The absence of "policy champions"—individuals or institutions who can act as facilitators, connectors, and innovators—is particularly notable. These actors are critical in mediating between policy makers, community actors, and private sector stakeholders to sustain meaningful collaboration and ensure responsiveness to local conditions (Ansell & Gash, 2008).

Nevertheless, the study also identified isolated cases of community-driven leadership that demonstrate significant potential. One of the most compelling examples is an Eco-Pesantren located in the Kedungkandang sub-district. The pesantren has independently implemented a composting system, supported by local youth groups and teachers, with minimal external assistance. This initiative not only addresses organic waste reduction but also incorporates environmental education into its religious curriculum. The pesantren leader explained:

"Kami memulai kegiatan ini karena ingin mendidik santri menjaga lingkungan. Awalnya swadaya, lalu pelan-pelan kami kembangkan kompos." (Informan 07, Pimpinan Pesantren)

This case illustrates the emergent leadership capacity that exists at the community level, which, if nurtured properly, could complement and enhance formal government programs. However, such initiatives remain siloed and disconnected from city-level strategies. DLH has not yet institutionalized mechanisms for identifying, recognizing, or scaling successful local innovations. As a result, these bottom-up efforts risk stagnation or burnout due to limited external support.

Additionally, while some kelurahan offices have attempted to coordinate with local environmental cadres, these efforts are often unsystematic and short-lived. Without a city-wide framework for facilitating cross-sector leadership and enabling local experimentation, community leaders often lack the legitimacy and resources to sustain their initiatives. NVivo coding found only five references to *"dukungan pemerintah untuk inovasi warga"*, highlighting the minimal formal support available.

From a theoretical standpoint, the leadership model in Malang diverges significantly from the facilitative leadership ideal central to collaborative governance frameworks. Facilitative leaders are those who encourage deliberation, build trust, and create spaces for shared responsibility. They do not dominate decisions but instead enable others to lead, adapt, and co-create. Emerson and Nabatchi (2015) argue that such leadership is particularly important in contexts of uncertainty and complexity, such as waste governance in urbanizing regions.

The absence of facilitative leadership in Malang has tangible consequences. It perpetuates a culture of dependency, where community actors await instructions rather than proactively addressing problems. It also limits the city's ability to learn from experimentation or scale best practices. Perhaps most importantly, it undermines the development of long-term collaborative capacity—an essential ingredient for achieving sustainability goals and

strengthening institutional resilience. To address this gap, a shift in leadership style is necessary. DLH and related agencies must move beyond the role of “commanders” and adopt the posture of “collaborative facilitators.” This can include the establishment of leadership training programs for community actors, dedicated liaison officers to coordinate with local groups, and incentive mechanisms to reward bottom-up innovation. Furthermore, the city government could pilot co-management models, in which community groups are given partial authority and budgetary responsibility for specific waste-related tasks, supported by city oversight and technical assistance.

In conclusion, while administrative leadership in Malang’s waste management system is functionally intact, the lack of facilitative and integrative leadership remains a significant barrier to collaborative governance. Without leadership that connects, empowers, and adapts, policy goals related to sustainability, participation, and innovation are unlikely to be realized. Addressing this leadership gap should be a strategic priority for the city in its effort to transform waste from a problem into an opportunity for inclusive and resilient urban development.

Collaborative Process: Weak Dialogue, Partial Understanding, and Low Ownership

A central tenet of collaborative governance is the presence of a robust, inclusive, and continuous process through which stakeholders engage in dialogue, develop shared understanding, and co-produce solutions. This process-oriented component is what distinguishes collaborative models from top-down bureaucratic systems. However, in the case of waste governance in Malang City, the collaborative process remains nascent, fragmented, and functionally weak. While there are formal references to participation and community involvement in policy texts such as Perda No. 7/2021, the actual processes through which collaboration occurs are limited in both depth and continuity.

One of the clearest weaknesses is the lack of structured dialogue platforms where multi-stakeholder engagement can take place beyond ceremonial or consultative events. Field interviews revealed that the primary arena for interaction between government and community actors is the annual Musyawarah Perencanaan Pembangunan (Musrenbang)—a forum that, while participatory in appearance, is often ritualistic in practice. Informants consistently described Musrenbang as a “once-a-year” opportunity with limited space for deliberation, feedback, or sustained collaboration.

“Kami ikut Musrenbang setiap tahun, tapi biasanya hanya mendengar paparan. Tidak ada ruang untuk diskusi atau tindak lanjut atas usulan kami.” (Informan 14, Ketua RW)

This quote illustrates the minimal problem-solving orientation of existing dialogue forums. NVivo analysis identified 11 references coded under the node *“Forum simbolik”*, reflecting sentiments that interactions with the government are primarily formalities rather than vehicles for genuine collaboration. Moreover, there is no structured follow-up mechanism from these meetings, and proposals raised by citizens often lack transparency regarding how they are evaluated or prioritized.

Beyond weak dialogic structures, the findings also point to a significant gap in shared understanding between stakeholders regarding the nature of waste as a societal issue. Government actors tend to frame waste in terms of environmental compliance and service delivery, whereas some community members—particularly those involved in waste banks and informal recycling—view it as an economic resource with potential value. This misalignment leads to conflicting expectations about policy objectives and appropriate solutions.

“Bagi kami, sampah itu bisa diolah jadi uang. Tapi pemerintah lebih fokus ke pengangkutan dan pembuangan saja.” (Informan 09, Pengelola Bank Sampah)

This divergence in problem framing inhibits the formation of a unified strategy and contributes to implementation inefficiencies. The concept of *“sampah sebagai sumber daya”* (waste as a resource), which is central to circular economy approaches, is not yet internalized across all institutional actors. NVivo frequency analysis revealed low occurrences of terms such as *“daur ulang”*, *“ekonomi sirkular”*, or *“pemanfaatan ulang”* in government planning

documents, in contrast to their frequent usage in community-based initiatives. Another major issue is the low level of public ownership over waste governance. While DLH and other institutions conduct public awareness campaigns on environmental cleanliness and the 3R principles, these efforts often lack mechanisms to capture, acknowledge, or integrate community contributions. The absence of feedback systems leads to a one-way communication model where citizens are expected to act, but are not engaged in evaluating outcomes or reshaping policy directions.

“Kami sudah lama memilah sampah di rumah, tapi tidak pernah ada tim yang datang meninjau atau memberi apresiasi. Rasanya tidak dihargai.” (Informan 12, Warga Sukun)

This lack of recognition results in what several scholars refer to as “participation fatigue”—a condition where citizens become disengaged due to the absence of tangible responses or outcomes from their involvement. NVivo coding showed 13 instances under the node *“Rendahnya rasa memiliki”*, indicating widespread disillusionment and loss of motivation, even among previously active citizens.

Despite these challenges, the city's receipt of the Adipura Award in 2022 for its achievements in environmental cleanliness and waste handling has had a symbolic impact. Some informants viewed the award as a validation of the city's environmental efforts, prompting local pride and an initial increase in participation in cleanup campaigns. However, this momentum has not translated into a systemic shift toward sustainable participation or institutional reform.

“Kami bangga dapat Adipura, tapi yang berubah hanya di permukaan. Program-program lama tetap jalan seperti biasa.” (Informan 04, Pegiat Lingkungan)

This reflects a broader pattern in public administration where symbolic achievements are not always followed by structural improvements. Awards and accolades, while useful for public image, may lead to “isomorphic mimicry”—where institutions adopt the appearance of success without addressing underlying weaknesses in process, inclusion, and learning (Pritchett et al., 2010).

From a governance theory perspective, the weakness in Malang's collaborative process can be linked to the absence of iterative engagement mechanisms. According to Emerson and Nabatchi (2015), collaborative governance is sustained not through one-time meetings but through cycles of dialogue, reflection, decision, and adaptation. Without institutional routines that facilitate such cycles—such as stakeholder advisory boards, joint monitoring teams, or feedback-based budgeting—collaboration cannot move beyond surface-level involvement.

Moreover, the current process does not allow for learning loops where both successes and failures are analyzed together by stakeholders. This reduces the city's ability to innovate, adjust policies, or respond to new challenges such as increased waste volume, citizen apathy, or operational inefficiencies.

To strengthen the collaborative process, Malang City must invest in structured and inclusive engagement platforms that go beyond information dissemination. These platforms should enable dialogue across sectors, institutionalize community feedback mechanisms, and develop shared performance indicators that all actors can work toward. Without these changes, the city's policy on participatory waste management will remain aspirational rather than transformative.

From Policy Control to Policy Co-Creation

The empirical findings of this study strongly indicate that waste management policy in Malang City is still predominantly governed by a **policy control paradigm**. Under this model, decision-making authority is concentrated within government institutions—particularly the Environmental Service (DLH)—while other actors such as community groups, private stakeholders, and informal sector participants are relegated to the margins of implementation. Participation is encouraged in theory but limited in practice, often restricted to ceremonial engagement or low-impact consultative forums. As a result, collaboration becomes peripheral rather than foundational, which constrains the effectiveness of policies in achieving sustainable development goals (SDGs), particularly SDG 11 on sustainable cities and SDG 12 on

responsible consumption and production. To address these structural limitations, a paradigm shift is required—one that moves from unilateral policy control to co-creation of policy. Policy co-creation is not merely about expanding participation; it is about reconfiguring how decisions are made, who gets to influence them, and how collective responsibility is shared. In the context of Malang's waste management challenges, co-creation offers an opportunity to realign the governance system with the principles of equity, inclusivity, and adaptive innovation.

One of the foundational steps in operationalizing policy co-creation is institutionalizing multi-stakeholder forums for planning, monitoring, and evaluation. These forums should be more than ad hoc or event-based; they must be regular, legally recognized, and functionally empowered to shape both strategic direction and operational decisions. Such platforms can convene representatives from DLH, local government units (kelurahan and kecamatan), community-based organizations, waste bank networks, youth groups, religious institutions, and private waste management providers. The goal is to transform the policy process into a dialogical and iterative engagement, where all stakeholders contribute knowledge, negotiate priorities, and co-design interventions.

Examples from other Indonesian cities such as Surabaya and Bandung show that when forums like “Komite Sampah Kota” or “Forum Lingkungan Hidup” are given legitimacy and funding, they can play critical roles in fostering collective ownership and improving implementation fidelity. Malang can learn from these models to construct a localized, contextually grounded collaborative platform.

Secondly, policy co-creation must include the formal recognition of informal actors within the waste management system. This includes waste pickers, scavenger cooperatives, informal recyclers, and community-based composters—groups that contribute significantly to waste sorting and resource recovery, yet operate outside formal policy frameworks. Recognition should be extended through legal instruments, capacity-building programs, and inclusion in government planning and procurement schemes.

Formalizing the role of informal actors can help resolve tensions between legality and legitimacy, which currently hampers cross-sector collaboration. It also offers an opportunity to enhance economic justice, as many of these actors operate under precarious conditions without social protection or institutional support. By integrating them into the official system, the government not only improves performance metrics (such as recycling rates and waste reduction) but also strengthens the social fabric of environmental governance.

Third, the process of co-creation must be anchored in the empowerment of local champions—individuals and community leaders who have demonstrated innovation and leadership in waste-related initiatives. These may include leaders of Eco-Pesantren programs, urban composting movements, or school-based environmental education efforts. While such figures exist across multiple kelurahan in Malang, they currently operate in silos due to the absence of facilitative pathways that connect them to city-level policy structures.

DLH should reposition itself not merely as a regulator, but also as a facilitator and enabler of micro-level innovation. This involves establishing grant schemes, mentorship programs, innovation labs, or pilot projects that allow community actors to experiment with localized solutions. In return, these innovations can be evaluated, documented, and potentially scaled up through policy integration—creating a virtuous cycle of innovation and institutional learning.

Lastly, the transition to policy co-creation requires investments in shared digital infrastructure for real-time data collection, public monitoring, and feedback mechanisms. At present, waste data in Malang is fragmented, largely internal to government agencies, and not easily accessible to the public. Building an open digital dashboard that displays metrics such as waste volumes by neighborhood, complaint resolution, and program progress can increase transparency, stimulate public engagement, and improve policy responsiveness.

Such a platform can also serve as a repository for community reports, best practices, and user-generated content, thereby democratizing information flows and breaking the monopoly of knowledge production held by state actors. With appropriate data governance and safeguards, this infrastructure can also facilitate targeted interventions by enabling policy makers to identify hotspots of low compliance or high innovation potential.

In sum, the move from policy control to policy co-creation is both a normative and strategic imperative for Malang City. It aligns governance with the complexity of urban environmental problems, leverages the creativity of non-state actors, and builds institutional resilience in the face of future challenges. While such a shift may require rethinking legal mandates, reallocating budgets, and retraining personnel, the long-term benefits—in terms of sustainability, equity, and innovation—are likely to far outweigh the costs. Malang City has already taken some initial steps toward this direction, as evidenced by its environmental accolades and community-based programs. However, to realize the full potential of collaborative governance, policy makers must embrace co-creation not as a rhetorical device but as a governing principle embedded into the DNA of municipal environmental management.

4. Conclusion

This study examined the implementation of waste management policy in Malang City through the lens of collaborative governance. Drawing upon empirical evidence from interviews, focus group discussions, field observations, and document analysis, the research revealed that the city's current governance model remains predominantly government-centric, characterized by top-down planning, symbolic participation, and fragmented institutional coordination. While the formal policy framework—especially as outlined in Perda No. 7/2021—emphasizes community engagement and upstream waste reduction, the collaborative mechanisms necessary to realize these goals remain underdeveloped. Four major findings emerged from this research. First, the starting conditions for collaboration are constrained by asymmetrical power relations and limited trust between government and non-state actors. Community members and informal stakeholders often feel excluded from strategic planning processes, leading to participation fatigue and disengagement. Second, institutional design suffers from the absence of sustained coordination platforms and unclear operational integration between formal, informal, and community actors. Despite the presence of innovative local practices, there is no enabling structure for their alignment with city-level strategies.

Third, the city's leadership style is marked by strong bureaucratic control but weak facilitative capacity. The Environmental Service (DLH) operates as a top-down regulator rather than as a convener or catalyst of innovation. This leaves grassroots actors without support or recognition, and hinders adaptive learning across the system. Fourth, the collaborative process itself is limited to ceremonial forums with minimal feedback mechanisms. Public understanding of waste as a shared responsibility remains uneven, and citizens lack a sense of ownership over policy outcomes.

In light of these findings, this study argues that Malang City must move from a model of policy control to one of policy co-creation. This transformation requires not just rhetorical commitment to participation, but structural changes in how collaboration is designed, facilitated, and institutionalized.

Policy Implications

1. Establish Multi-Stakeholder Governance Forums

The city government should institutionalize inclusive platforms where public, private, and community actors can participate in planning, monitoring, and policy review. These forums must have legal mandates, regular meeting schedules, and operational support to ensure they are not merely symbolic.

2. Recognize and Integrate Informal and Community Actors

Waste pickers, scavenger cooperatives, religious schools (e.g., Eco-Pesantren), and neighborhood waste banks contribute significantly to local waste solutions. These actors should be formally acknowledged through permits, training, incentives, and participatory budgeting mechanisms.

3. Shift Leadership Orientation from Command to Facilitation

Municipal agencies—especially DLH—must reposition themselves as facilitators and enablers. This involves investing in leadership development for both government and community actors, fostering trust, and co-managing programs that allow bottom-up innovation to flourish.

4. **Develop Feedback Loops and Shared Monitoring Systems**
Current citizen engagement is often one-directional. The city should invest in digital and offline feedback mechanisms that allow communities to report, evaluate, and co-assess program effectiveness. This can include participatory dashboards, community scorecards, or open-data tools on waste performance.
5. **Support Local Innovation and Micro-Experimentation**
Instead of a one-size-fits-all policy approach, the government should encourage micro-level experiments in waste handling, education, and resource recovery. Providing seed funding, technical guidance, and public recognition to these initiatives will stimulate innovation and build trust.
6. **Reframe Waste Not Just as a Problem, but as a Resource**
Public communication strategies need to promote a shift in mindset—from viewing waste purely as pollution to recognizing its potential in circular economy models. Campaigns, education programs, and school curricula should embed this perspective across generations.
7. **Align with National and Global Commitments**
Malang City must align its waste governance reforms with Indonesia's national target of reducing waste by 30% and handling 70% by 2025, as well as with SDG 11 (sustainable cities) and SDG 12 (responsible consumption). Achieving this will require not only infrastructure investment but also institutional innovation.

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