

Community Participation in Household Waste Management through the Reduce, Sort, and Utilize Program in Bandung City, Indonesia

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Abstract. Household waste management increasingly requires active community involvement because source-based reduction cannot rely solely on municipal collection and disposal systems. This study analyzes and compares community participation in household waste management through Bandung City's Kang Pisman (Reduce, Sort, and Utilize) Program in Sukasari and Cicendo Districts in 2024. A descriptive qualitative approach was employed using observation, interviews, and documentation. The analysis applies Cohen and Uphoff's participation framework encompassing decision-making, implementation, benefit-taking, and evaluation. The findings reveal substantial differences between the two districts. Household participation in waste sorting reached 67% in Sukasari but only 12% in Cicendo. Sukasari generated 4,353,038 kg of waste with an average reduction rate of 53.10%, whereas Cicendo generated 9,084,476 kg with an average reduction rate of only 4.60%. In both districts, initial program decisions remained predominantly top-down, while participation became stronger during operational implementation through neighborhood associations, PKK groups, youth organizations, waste banks, and other local organizations. Sukasari demonstrated stronger local initiative and adaptive implementation than Cicendo. Material, social, and personal benefits were evident in both areas, although their distribution remained uneven. Participation in evaluation was predominantly informal and indirect through neighborhood communication, WhatsApp groups, and social media rather than institutionalized evaluation forums. The study concludes that sustainable household waste management depends not merely on operational community involvement but on institutionalizing participation across the entire policy cycle, particularly in decision-making and evaluation.

Keywords: Community Participation; Household; Waste Management

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INTRODUCTION

The waste problem in Indonesia continues to be a challenge every year. As a densely populated country, waste production in Indonesia continues to increase in line with population growth. According to data from the Central Statistics Agency (BPS), Indonesia's population reached 281.6 million in 2024, significantly increasing the volume of waste generated. The government plays a crucial role in managing waste to prevent negative impacts on the environment and public health (Afnan, Wijaya, Kartono, & Wibowo, 2025). Urban waste management increasingly requires community participation because household behavior directly influences waste reduction, sorting, reuse, and recycling outcomes (Dhokhikah et al., 2015; Santoso & Farizal, 2019).

Article 28H paragraph 1 of the 1945 Constitution affirms that everyone has the right to live in prosperity, to have a home, and to have a good and healthy environment. This right can only be fulfilled if waste management is carried out properly to prevent pollution and health risks. Article 33 paragraph 3 states that the land, water, and natural resources contained therein are controlled by the state and used for the greatest prosperity of the people. Waste generated from community activities is also a resource that must be managed properly by the state. As a concrete step, the government issued Law of the Republic of Indonesia Number 18 of 2008 concerning Waste Management as a legal basis for regulating systematic and sustainable waste management. The waste management law explains that waste management is a systematic, comprehensive, and continuous activity that includes waste reduction and handling (Sukidin, Hudha, & Basrowi, 2025).

Central government policies serve as the basis for each region's policymaking on similar issues. The Waste Management Law serves as the basis for formulating and establishing regional policies in accordance with the characteristics and local wisdom of each region. The decentralized system encourages each region to manage waste independently, in accordance with its regional autonomy.

As an implementation of Law Number 18 of 2008 concerning Waste Management and Law Number 23 of 2014 concerning Regional Government, the West Java Provincial Government established Regional Regulation Number 12 of 2010 concerning Waste Management. The waste management policy in West Java Province has been revised to Regional Regulation Number 1 of 2016 concerning Amendments to Regional Regulation of West Java Province Number 12 of 2010 concerning Waste Management in West Java. The change from Regional Regulation Number 12 of 2010 to Regional Regulation Number 1 of 2016 concerning Waste Management in West Java Province reflects a significant shift in the approach to waste management. Regional Regulation Number 1 of 2016 concerning Waste Management places greater emphasis on sustainability, with a focus on waste reduction, sorting, and recycling, as well as active community involvement in the management process. This policy strengthens local government obligations and establishes stricter sanctions for violations, thus creating a more comprehensive and effective framework for addressing waste issues (Story & Glanville, 2019).

The West Java Provincial Government already has a series of policies on waste management but still faces various obstacles and challenges in implementing waste management, one of which is the still high volume of waste generated. Similar studies in Indonesia show that sustainable waste management depends on the interaction of public policy,

community behavior, local institutions, and supporting infrastructure (Fatimah et al., 2020; Resolute, 2024).

Mapping the amount of waste generated in each region, including at the district/city level, is a crucial step in supporting waste management. As one of the highest waste-producing provinces in Indonesia from 2022 to 2024, West Java Province faces challenges in waste management. Below are data on the three regencies/cities with the highest waste generation in West Java Province during that period.

The population of Bandung City increased from 2022 to 2024. In 2022, the population was recorded at 2,545,005. This figure increased to 2,569,107 in 2023, indicating continued population growth. This upward trend continued until 2024, when the population reached 2,591,763. This increase impacted various aspects of city life. One of the most noticeable impacts was the increase in waste generated by the community. The amount of waste generated in Bandung City demonstrates the urgency of better waste management (Bainus, Yulianti, Sari, Setyaka, & Rahmatika, 2025). The growing urban population also intensifies pressure on municipal waste systems and strengthens the need for source-based household management (Bainus et al., 2025; Afnan et al., 2025).

With the increasing amount of waste generated in Bandung City, effective waste management is a necessity. One of the real impacts of poor waste management is the pile of garbage. In 2023, a fire occurred at the Sarimukti Final Disposal Site, a fire that burned a pile of garbage at the Sarimukti Final Disposal Site (TPA) in Cipatat District, West Bandung Regency. The Sarimukti Final Disposal Site (TPA) is the final waste disposal site for the Greater Bandung area, namely Bandung City, Cimahi City, and West Bandung Regency. The fire at the Sarimukti TPA reduced the waste disposal capacity in Bandung City by 50 percent. As a result, garbage piled up on the roadside.

Piles of waste that are not properly managed can impact the economic sector. The presence of trash piled up in market areas can reduce the attractiveness of buyers and ultimately harm vendors. Piles of trash near a chicken noodle vendor's stall at Cicadas Market caused an unpleasant odor and a large number of flies, disrupting trading activities and drastically reducing customer numbers.

The piles of garbage in Bandung City not only impact the economy but also disrupt the mobility and activities of residents. The condition of waste management at the Kosambi Temporary Disposal Site (TPS) is alarming. The TPS has exceeded its capacity, with piles of garbage reaching 4 meters high, narrowing the road to only one car. The presence of the

garbage also disrupts the activities of residents and vendors due to the unpleasant odor that permeates the surrounding area.

The amount of waste generated from household sources is influenced by the level of community participation in waste management, starting from the family or each household. It can be assumed that greater community participation in household waste management will further reduce the amount of waste generated from household sources. Household waste management by each member of the community can be achieved by reducing, separating, and utilizing household waste. Evidence from Indonesian communities indicates that knowledge, local organization, access to information, and perceived benefits significantly shape household participation in waste reduction (Nugraha et al., 2018; Meidiana et al., 2021; Yuliana & Wijayanti, 2019).

Public understanding of waste and its management is an important element in creating awareness and willingness to participate in the waste management process. Based on Article 5 Paragraph 2 letter of Bandung City Regional Regulation No. 9 of 2018 concerning Waste Management, the regional government has the duty to foster and increase public awareness in waste management. In carrying out waste management, the regional government has the authority to establish waste management policies and strategies that refer to national and provincial policies, as regulated in Article 6 letter a of Bandung City Regional Regulation No. 9 of 2018. Regional waste management policies and strategies are explained in Article 7 Paragraph 1, which includes waste management policies, waste management strategies, and waste management programs. Article 8 letter c emphasizes the importance of integrated community involvement in every aspect of waste management. Community-based institutions, including waste banks and neighborhood organizations, can strengthen participation when residents receive continuous information, institutional support, and opportunities for collective action (Rachman et al., 2020; Annashr et al., 2024; Wellang & Matsumoto, 2024).

Based on data on the number of households that participate in sorting household waste, a comparative study will be conducted on the sub-districts with the highest and lowest participation rates. Data from the Bandung City Environmental Agency (DLH) shows that the sub-district with the highest level of participation in sorting household waste is Sukasari Sub-district at 67% and the lowest is Cicendo Sub-district with a participation rate of 12%. This study will use the participation theory according to John Cohen and Norman Uphoff, which distinguishes participation into four types: participation in decision-making, participation in implementation, participation in benefits, and participation in evaluation. The contrasting participation levels

between Sukasari and Cicendo therefore provide an empirical basis for examining not only the extent of participation but also its institutional depth across different stages of the program.

In terms of participation in decision-making, community participation in household waste management through the "Reduce, Separate, and Utilize" (Kang Pisman) program remains low. This is evident in the program's suboptimal implementation, with piles of waste still being found. Furthermore, not all Bandung residents understand the program, indicating a lack of community involvement in the program's planning and decision-making processes.

In terms of participation in implementation, community participation in household waste management through the Reduce, Separate, and Utilize (Kang Pisman) program remains low. Data from the Bandung City Environmental Agency (DLH) in 2024 showed that the sub-district with the highest participation rate in sorting household waste was Sukasari Sub-district at 67%, and the lowest was Cicendo Sub-district with a participation rate of 12%. Although Sukasari recorded a relatively high participation rate, this figure does not reflect the active involvement of all levels of society in household waste management through the Kang Pisman program. Meanwhile, the low participation rate in Cicendo Sub-district indicates a lack of public awareness, understanding, and motivation in implementing the Kang Pisman program.

In terms of participation in benefiting, particularly in social benefits, community participation in household waste management through the Reduce, Separate, and Utilize (Kang Pisman) program is still low. Social benefits can be felt by the community, including the creation of a cleaner and healthier environment, one of which is by reducing the volume of waste. Data from the Bandung City Environmental Agency (DLH) in 2024 shows that waste generation in Sukasari District reached 4,353,038 kg with an average waste reduction percentage of 53.10%, while in Cicendo District, waste generation reached 9,084,476 kg with an average reduction percentage of only 4.60%. This difference indicates that the level of public awareness and involvement in household waste management through the Kang Pisman program is still low in Cicendo compared to Sukasari. This condition also reflects that the social benefits of the Kang Pisman program, such as a clean environment, have not been felt evenly by the entire community.

In terms of evaluation, community participation in household waste management through the Reduce, Separate, and Utilize (Kang Pisman) program remains low. This is due to the lack of clear success indicators, the dominance of ceremonial activities without evaluative substance, and the minimal implementation of the program at the neighborhood unit (RW) level, which impacts community engagement. Furthermore, the difficulty in changing community behavior is not accompanied by efforts to involve the community in evaluations to find appropriate solutions.

Thus, community participation in the evaluation of Kang Pisman has not been reflected either directly, through program evaluation activities, or indirectly, such as efforts to influence policy direction or public opinion.

Accordingly, the research gap lies in the limited comparative understanding of how community participation operates across decision-making, implementation, benefit-taking, and evaluation within the same urban waste-management policy but under contrasting local participation conditions. Previous studies explain why communities participate and identify factors associated with waste-management behavior (Dhokhikah et al., 2015; Meidiana et al., 2021; Annashr et al., 2024), yet they provide less explanation of whether strong operational participation is accompanied by equivalent community influence over program decisions and evaluation. The novelty of this study therefore lies in shifting the analytical focus from the level of participation to the institutionalization of participation across the policy cycle. By comparatively applying Cohen and Uphoff's framework to Sukasari and Cicendo, this study distinguishes operational participation, reflected in sorting, collecting, and utilizing waste, from participatory influence, reflected in citizens' capacity to shape decisions and evaluate the program. This distinction introduces the concept of a participation institutionalization gap, referring to a condition in which communities become active program implementers without acquiring equivalent influence over initial decision-making and formal evaluation. Such a perspective provides a more differentiated explanation for why two districts operating under the same municipal program can produce markedly different participation and waste-reduction outcomes. Based on this gap, the study aims to analyze and compare community participation in household waste management through the Kang Pisman Program in Sukasari and Cicendo Districts in 2024 across four dimensions: decision-making, implementation, benefit-taking, and evaluation.

METHOD

This study employed a descriptive qualitative approach to analyze and compare community participation in household waste management through the Reduce, Sort, and Utilize (Kang Pisman) Program in Sukasari and Cicendo Districts, Bandung City, in 2024. The two districts were purposively selected because they represented contrasting levels of household waste-sorting participation, with Sukasari recording the highest participation rate at 67% and Cicendo the lowest at 12%. Data were collected through observation, in-depth interviews, and documentation to capture both institutional processes and community experiences in implementing the program. Informants were selected purposively based on their knowledge, involvement, and direct experience with Kang Pisman, including government officials, district and

sub-district actors, community organizations, environmental cadres, waste-bank administrators, and participating residents. Observation was conducted to examine household waste-management practices and community activities, while documentation was used to complement interview evidence with relevant program and waste-management records. Data were analyzed using an interactive qualitative process consisting of data condensation, data display, and conclusion drawing and verification. The analysis was organized according to Cohen and Uphoff's (1980) four dimensions of participation, namely decision-making, implementation, benefit-taking, and evaluation. Comparative analysis was subsequently conducted to identify similarities and differences between Sukasari and Cicendo across these four dimensions. Data credibility was strengthened through source and method triangulation by comparing information obtained from different informants, observations, and documentary evidence. This analytical procedure enabled the study to move beyond comparing participation percentages and to examine how differences in the institutional depth of participation shaped the implementation of Kang Pisman in the two districts.

RESULT AND DISCUSSION

Community Participation in Decision-Making and Program Implementation

Community participation in the Kang Pisman Program in Sukasari and Cicendo Districts demonstrates that involvement develops differently across stages of the policy process. Following Cohen and Uphoff (1980), participation in decision-making can be distinguished into initial, ongoing, and operational decisions. In both districts, initial participation was relatively limited because Kang Pisman originated primarily as a Bandung City Government response to the waste problem rather than as a program formulated through extensive bottom-up consultation. This pattern suggests that community participation at the initial stage remained predominantly top-down, with residents positioned more as recipients of an established policy than as actors involved in defining its original direction.

Nevertheless, limited involvement in initial decision-making did not prevent participation from developing during subsequent stages. Communities became increasingly involved when the program entered ongoing and operational decision-making. This finding supports the proposition that communities excluded from initial decisions may still develop meaningful participation once programs are implemented and their consequences become directly experienced (Cohen & Uphoff, 1980; Massagony et al., 2025). Community experience during implementation can create opportunities for local adaptation, feedback, and practical problem-solving (Branley et al., 2025). In Kang Pisman, these opportunities were mediated through neighborhood associations (RT/RW), PKK groups, Karang Taruna, waste banks, environmental cadres, and other local

organizations that connected government structures with household practices (Bainus et al., 2025).

The distinction between the two districts becomes clearer at the operational level. Sukasari exhibited stronger local initiative and adaptive decision-making, including deliberation at the neighborhood level and the involvement of community organizations in responding to practical waste-management problems. Cicendo also utilized RT/RW, PKK, Karang Taruna, LKK, waste banks, Waste Management Task Forces, and Guber officers, but community involvement remained more dependent on administrative direction. Thus, both districts demonstrated operational participation, although the depth of local initiative differed. This finding is consistent with research showing that local organizations, access to information, and community networks can strengthen participation by creating institutional spaces through which residents translate general waste policies into locally workable practices (Rachman et al., 2020; Meidiana et al., 2021; Wellang & Matsumoto, 2024).

These differences became more visible during program implementation. Cohen and Uphoff conceptualize implementation participation through resource contributions, administration and coordination, and direct involvement in program activities. In both districts, labor represented the most visible community contribution. Residents sorted household waste, deposited recyclable materials in waste banks, participated in environmental activities, and contributed organic materials for composting or maggot cultivation. Financial contributions were comparatively limited because program financing and infrastructure remained largely supported by the government. Local organizations functioned as the operational backbone of this participation. RT/RW organizations, PKK groups, Karang Taruna, environmental cadres, waste-bank administrators, and other community actors disseminated information, coordinated collection and sorting, mobilized residents, and connected household activities with government programs. Similar patterns have been observed in Indonesian community-based waste management, where environmental knowledge, local cadres, supporting facilities, and neighborhood institutions substantially influence household involvement (Dhokhikah et al., 2015; Santoso & Farizal, 2019; Yuliana & Wijayanti, 2019; Ramandei, 2022; Sompie et al., 2022).

However, the quantitative contrast between the two districts indicates that the existence of community organizations alone does not guarantee equivalent participation. Household waste-sorting participation reached 67% in Sukasari but only 12% in Cicendo. This difference suggests that participation depends not merely on organizational presence but also on the continuity of communication, institutional support, community motivation, infrastructure, and residents'

perception that their individual contributions produce meaningful outcomes. Previous studies similarly demonstrate that participation in community waste management is affected by environmental knowledge, perceived benefits, access to information, facilities, and participation in community organizations (Meidiana et al., 2021; Annashr et al., 2024; Saleh et al., 2024).

Accordingly, Sukasari's stronger implementation should not be interpreted simply as evidence that its residents possess greater environmental awareness. Rather, the findings indicate a comparatively stronger local participation ecosystem in which community organizations, communication mechanisms, and operational adaptation reinforce one another. Conversely, Cicendo illustrates how participation may remain uneven when community involvement is more dependent on government mobilization and when residents do not consistently perceive household waste management as a shared responsibility. This finding reinforces the argument that behavioral willingness must be accompanied by reliable institutional and technical systems to sustain community-based waste management (Fatimah et al., 2020; Resolute, 2024).

Community Participation in Benefit-Taking and Program Evaluation

Participation in Kang Pisman also needs to be understood through the benefits experienced by communities. Cohen and Uphoff distinguish benefits into material, social, and personal dimensions. Material benefits were particularly visible through waste-bank activities, where residents could convert sorted inorganic waste and used cooking oil into savings or additional household income. Organic waste utilization through composting and maggot cultivation also created opportunities for reducing household expenditure or producing reusable materials. Although the monetary value was relatively modest for some residents, these mechanisms provided tangible evidence that household waste could acquire economic value rather than simply becoming discarded material.

The economic dimension, however, does not fully explain continued participation. Previous studies indicate that community involvement in waste management is influenced simultaneously by perceived economic benefits, environmental knowledge, social interaction, and opportunities for collective action (Yuliana & Wijayanti, 2019; Meidiana et al., 2021; Saleh et al., 2024). This pattern was also apparent in Kang Pisman. Residents identified cleaner surroundings, reduced waste odors, improved sanitation, and greater environmental awareness as important social benefits. Community-based waste-management research similarly associates sustained participation with improvements in neighborhood cleanliness and collective environmental

responsibility (Dhokhikah et al., 2015; Rachman et al., 2020; Fitriani et al., 2024; Laksmiwati et al., 2023).

The contrast between Sukasari and Cicendo is particularly evident in waste-reduction outcomes. Sukasari generated 4,353,038 kg of waste with an average reduction rate of 53.10%, whereas Cicendo generated 9,084,476 kg with an average reduction rate of only 4.60%. These figures parallel the substantial difference in household sorting participation and suggest a reciprocal relationship between participation and perceived benefits. More consistent participation creates more visible environmental outcomes, while visible outcomes can strengthen residents' motivation and sense of efficacy.

Personal benefits also emerged through recognition, environmental pride, and residents' sense that their actions contributed to cleaner neighborhoods. In Cohen and Uphoff's framework, such benefits include self-esteem, political power, and a sense of efficacy. Kang Pisman appears to have strengthened self-esteem and efficacy among active participants, particularly where residents could directly observe the results of waste sorting and community action. Nevertheless, political benefits remained substantially weaker because community influence over strategic program decisions was limited. Thus, participation generated tangible and psychological benefits without necessarily redistributing decision-making authority.

A similar limitation emerges in program evaluation. In both Sukasari and Cicendo, participation in evaluation was predominantly indirect and informal. Residents communicated complaints, suggestions, and operational problems through RT/RW structures, sub-district officials, WhatsApp groups, informal meetings, and social media. These mechanisms occasionally contributed to technical adjustments, demonstrating that informal communication can function as a practical feedback channel. Communication networks are indeed important in community-based waste management because they determine how local experience reaches organizational actors (Wellang & Matsumoto, 2024).

Nevertheless, formal community participation in strategic evaluation remained limited. Local political channels were not prominent, while program evaluation remained largely administrative and concentrated within government structures. This is important because community participation in evaluation should extend beyond reporting operational difficulties. It should enable citizens to assess program performance, discuss whether intended benefits have been achieved, and influence subsequent policy modification. Dynamic and community-led waste governance similarly requires institutional arrangements capable of transforming citizen feedback into

organizational learning and policy adaptation (Salsabila et al., 2024; Wellang & Matsumoto, 2024).

The findings therefore reveal an imbalance between participation as implementation and participation as influence. Residents were considerably more visible when sorting waste, operating waste banks, contributing labor, and receiving benefits than when shaping initial decisions or formally evaluating the program. This distinction is central to understanding why operational activity should not automatically be interpreted as fully participatory governance.

Comparative Participation and the Institutionalization Gap in Kang Pisman

Taken together, the comparison reveals both similarities and important differences between Sukasari and Cicendo. Both districts operate under the same municipal Kang Pisman framework, both initially experienced predominantly top-down decision-making, and both rely heavily on community organizations during implementation. Material, social, and personal benefits also occur in both settings, while formal community involvement in evaluation remains comparatively weak. Yet these similarities coexist with markedly different participation and waste-reduction outcomes.

Sukasari demonstrates a stronger participatory configuration. Household sorting participation reached 67%, local organizations played more proactive roles, operational decision-making was comparatively adaptive, and waste reduction reached 53.10%. Cicendo, by contrast, recorded household sorting participation of only 12% and an average waste-reduction rate of 4.60%. Although local actors were involved in program activities, participation remained more uneven and comparatively dependent on government direction. The difference therefore cannot be reduced to whether community participation exists. Rather, it concerns the quality, continuity, and institutional embedding of participation.

This interpretation corresponds with previous research showing that community-based waste management results from interactions among behavioral, institutional, infrastructural, and social factors rather than environmental awareness alone (Dhokhikah et al., 2015; Fatimah et al., 2020; Meidiana et al., 2021; Resolute, 2024). Evidence concerning waste banks and local environmental programs similarly indicates that information, organizational participation, perceived benefits, leadership, infrastructure, and community networks shape both the initiation and sustainability of participation (Yuliana & Wijayanti, 2019; Annashr et al., 2024; Mufidah et al., 2024; Salsabila et al., 2024).

The comparison also demonstrates that participation across Cohen and Uphoff's four dimensions does not develop linearly. Strong implementation participation can coexist with weak

initial decision-making and formal evaluation. Likewise, residents can experience material, social, and personal benefits without acquiring comparable influence over strategic program governance. This finding extends the empirical application of Cohen and Uphoff's framework by emphasizing the institutional relationship among participation stages, rather than examining each dimension as an isolated category.

On this basis, the study identifies a participation institutionalization gap in the implementation of Kang Pisman. The gap refers to a condition in which citizens have become relatively active program implementers and beneficiaries, while their role as policy-shaping and evaluating actors remains substantially more limited. The gap is evident in both districts, although Sukasari demonstrates a stronger capacity to reduce it through local deliberation, organizational initiative, and adaptive operational practices.

This finding has practical implications for Bandung City's waste governance. Increasing household participation cannot rely solely on more intensive socialization or requests for residents to sort waste. The government needs to ensure that household efforts are supported by consistent downstream collection and processing systems, because discontinuity between sorting and subsequent waste handling can weaken motivation. Community organizations also require sustained institutional support because they function as intermediaries between municipal policy and everyday household behavior.

More importantly, formal participatory mechanisms should be strengthened at both ends of the policy cycle. Communities should have greater opportunities to contribute to local program planning and to participate in periodic evaluation forums where waste-reduction performance, implementation constraints, and community proposals can be discussed transparently. In this sense, the future sustainability of Kang Pisman depends not simply on transforming residents into better waste sorters, but on gradually repositioning them as co-producers of waste governance.

The comparative evidence from Sukasari and Cicendo consequently demonstrates that participation is most effective when behavioral engagement is reinforced by local organizations, institutional responsiveness, visible benefits, reliable waste-management systems, and opportunities to influence program development. The principal challenge for Kang Pisman is therefore no longer merely expanding operational participation, but institutionalizing meaningful community involvement throughout decision-making, implementation, benefit-taking, and evaluation.

CONCLUSION

Community participation in household waste management through the Kang Pisman Program in Sukasari and Cicendo Districts demonstrates that participation is neither uniform nor equally distributed across the stages of the policy process. In both districts, initial decision-making remained predominantly top-down because the program originated from the Bandung City Government and residents had limited involvement in its initial formulation. Participation subsequently became stronger during ongoing and operational decision-making through RT/RW organizations, PKK groups, Karang Taruna, waste banks, environmental cadres, and other community-based actors. The most substantial difference emerged during implementation. Sukasari recorded household waste-sorting participation of 67%, while Cicendo recorded only 12%. This difference was accompanied by contrasting waste-reduction performance: Sukasari generated 4,353,038 kg of waste with an average reduction of 53.10%, whereas Cicendo generated 9,084,476 kg with an average reduction of only 4.60%. Material, social, and personal benefits were evident in both districts, yet they remained unevenly distributed. Evaluation was the weakest dimension of participation because community feedback was mainly conveyed through informal mechanisms such as RT/RW communication, WhatsApp groups, direct communication with local officials, and social media. The central contribution of this study is the identification of a participation institutionalization gap: citizens are relatively visible in program implementation but remain less influential in initial decision-making and formal evaluation. Accordingly, the Bandung City Government should strengthen regular participatory forums, improve consistency between household sorting and downstream waste collection, sustain environmental education, and develop more responsive evaluation mechanisms. Future studies should examine household behavioral factors and institutional conditions across a larger number of districts to assess whether this participation gap occurs more broadly in Bandung City's waste governance.

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