

An Analysis of Participatory Waste Management Implementation Through the Lens of Merilee S. Grindle

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ABSTRACT

This study aims to analyze the implementation of community-based waste management policies in Pincara Village, Pinrang Regency, and to map the driving and inhibiting factors in the process. Using the theoretical framework of Merilee S. Grindle, this study examines how policy content interacts with the social context at the village level. The research employs a descriptive qualitative method, with data collected through in-depth interviews, observation, and documentation. Data analysis was conducted digitally using NVivo 12 Plus software to obtain accurate visualizations of field findings. The results indicate a significant imbalance, where inhibiting factors dominate the narrative at 27%, compared to supporting factors which account for only 2%. The main constraints are related to limited infrastructure, such as the absence of temporary waste disposal sites (TPS) and transportation facilities, which affects the reliability dimension of public services. This condition forces the community to rely on conventional methods, such as independent waste burning. In addition, community participation remains at a functional level, characterized by reactive involvement driven by local leaders and village officials. The study concludes that the failure of policy implementation is not due to community resistance, but rather due to limitations in technical and social support systems. Therefore, a policy reorientation is needed through strengthening tangible evidence and persuasive communication strategies to transform community behavior toward sustainable village environmental governance.

INTRODUCTION

The issue of waste is no longer merely a technical problem of disposal, but has evolved into a global challenge that threatens the sustainability of human life. In Indonesia, this problem has become increasingly complex as population growth is not aligned with the capacity of environmental management systems. Data from the National Waste Management Information System (SIPSN) of the Ministry of Environment and Forestry shows that national waste generation in 2024 reached 34.09 million tons, yet only around 32.58% was properly managed. The majority of waste still ends up in open dumping sites, causing soil and water pollution. This condition highlights that the root of the problem lies in institutional governance and the low level of public awareness in maintaining the environment.

Active community involvement is a key factor in reducing waste volume through participatory management models. However, in rural areas, this challenge is often compounded by the absence of integrated waste collection systems. This situation leads to reliance on harmful traditional practices, such as open waste burning, which poses serious risks to public health and air quality (Zakirman et al., 2022). In fact, from a regulatory perspective, the government has established a strong legal foundation through Law No. 18 of 2008 and Regional Regulation of Pinrang Regency No. 7 of 2013, which mandate integrated waste management emphasizing active public participation. Unfortunately, many villages still struggle to translate these regulations into concrete actions due to limited infrastructure and weak communication between village authorities and residents.

Pincara Village in Patampanua District, Pinrang Regency, represents a clear example of the gap between policy and field reality. Waste management in this area remains conventional and poorly organized. Observations indicate that waste is still scattered along roadsides and vacant land due to the absence of temporary disposal facilities (TPS) and regular transportation services. Symbolic programs such as community clean-up activities ("Kerja Bakti") are implemented, but their impact is only temporary, as community awareness has not yet developed deeply. To analyze this anomaly, this study adopts the theoretical lens of Merilee S. Grindle (1980), which posits that policy success largely depends on the interaction between policy content and the social context in which it is implemented (Siregar, 2022).

To capture these dynamics comprehensively, this study employs a descriptive qualitative design to explore perspectives from both village authorities and the community. This approach is important, as bibliometric analysis using VOSviewer on hundreds of publications over the past five years reveals a significant gap in the literature. Waste-related studies are still dominated by technical issues in urban areas, while research focusing on rural community participation and local wisdom remains limited. This gap is what this study seeks to address, based on the premise that waste management is a collective responsibility (Maulziandra, 2023) and that participation is a

prerequisite for a healthy environment (Zukhriadi et al., 2021). Additionally, the importance of 3R (Reduce, Reuse, Recycle) education (Nurul Laili, 2022), as well as legal aspect mapping (Rizqianti Hariz & Sulaiman, 2022; Khaironi, 2023), further strengthens the foundation of this research.

The novelty of this study lies in its specific locus and analytical focus within a rural ecosystem with limited resources. While many previous studies have focused solely on measuring public awareness or technical strategies, this research utilizes Grindle's framework to examine how local leadership and community participation can act as driving forces in environmental policy implementation at the village level. Therefore, this study is expected to contribute both theoretically and practically to collaborative environmental governance.

Based on this background, the main focus of this study is to analyze how community-based waste management policy is implemented in Pincara Village, and to identify the driving and inhibiting factors influencing the process.

LITERATURE REVIEW

In the discourse of public policy, the implementation stage represents the operational manifestation of formally formulated political visions. A policy, no matter how ideal its design, will remain merely an administrative document without tangible impact on society if it is not accompanied by proper execution in the field (Roring et al., 2021). Implementation serves as a crucial bridge connecting abstract governmental plans with real public needs, enabling strategic objectives to be effectively achieved (Okhtafianny & Ariani, 2023). Adopting the perspective of Merilee S. Grindle as cited in Prihatin (2021), the implementation process is viewed as the intersection between political and administrative interests. Success in this context is no longer measured solely by procedural completion, but by the outcomes experienced directly by target groups.

Grindle, as cited by Prihatin (2021), proposes two key dimensions in evaluating policy success: the process dimension, which assesses the consistency between initial design and actual implementation, and the outcome dimension, which measures the extent to which policies bring behavioral change within communities. Furthermore, policy implementation is strongly influenced by the dynamic interaction between the content of policy and the context of policy. The content of policy includes technical aspects such as resource availability and the type of benefits offered, while the policy context involves power relations, actor strategies, and the level of compliance among implementers. In line with this view, Pressman and Wildavsky (in Fatmariyanti & Fauzi, 2023) define implementation as a collective effort to realize and refine an initiative through the utilization of various instruments in order to achieve intended targets systematically.

The urgency of policy implementation becomes highly relevant when addressing waste management issues, which remain a persistent environmental challenge. Waste is generally defined as all solid residual materials resulting from human and animal activities that require special handling (Hasibuan et al., 2024). Within the framework of sustainable development, waste management at the local level is a responsibility of local governments that must be translated down to the village level, as mandated by Law No. 18 of 2008. Currently, there is an urgent need to shift from conventional “end-of-pipe” approaches—collect, transport, and dispose—toward more integrated strategies based on the 3R principles (reduce, reuse, recycle) (Fitrianto et al., 2024). However, this transition is often hindered by limited infrastructure and low collective awareness in reducing waste at its source (Hertati et al., 2023). Failure to manage waste systematically not only burdens landfill capacity but also triggers environmental degradation that negatively impacts public health and ecosystem sustainability.

The key to addressing this issue lies in public participation as a fundamental pillar of environmental program success. In this context, community involvement is not merely a right but also a moral responsibility, legally mandated under Article 44 paragraph (1) of Law No. 18 of 2008. This participation encompasses a broad spectrum, ranging from household-level waste sorting, active involvement in waste bank initiatives, to participation in local policy decision-making. Targeted education and campaigns are essential instruments to ensure that communities understand the strategic importance of proper waste reduction practices (Lasaiba, 2024). Community engagement itself is influenced by various factors, including motivation for direct benefits, knowledge capacity, accessibility of facilities, and support from local legal frameworks.

Ultimately, community participation contributes to the quality of public services in the environmental sector. Public service is fundamentally a core function of government to fulfill citizens’ basic needs, often involving both procedural governance issues and substantive challenges related to human activities (Nur, 2025). Referring to Law No. 25 of 2009, service quality can be measured using the SERVQUAL dimensions developed by Zeithaml et al., which include tangibles (availability of facilities and equipment), reliability (consistency in service delivery), responsiveness (ability of officers to assist citizens), assurance (competence of service providers), and empathy (attention to citizens’ concerns) (Choirunnisa et al., 2023).

As the frontline of governance, village administrations play a strategic role in providing effective environmental services (Muliawaty & Hendryawan, 2020). Based on Merilee S. Grindle’s framework (1980), this study identifies that the implementation of waste management policy in Pincara Village results from the interaction between policy content—such as program objectives and resource allocation—and implementation context, including actor commitment and local socio-economic conditions. The synergy between these factors ultimately

determines the extent to which policies can strengthen community participation and create clean and sustainable village environmental governance.

RESEARCH METHOD

This study employs a descriptive qualitative approach to comprehensively examine the dynamics of waste management policy implementation in Pincara Village. The researcher acts as the primary instrument to understand the natural interactions between the village government and the community, as well as to interpret social phenomena occurring in the field. The research location, Pincara Village in Pinrang Regency, was selected purposively due to its lack of a structured waste management system, making it an ideal setting to examine patterns of community participation under resource constraints.

Research informants were selected using purposive sampling, including key actors such as village officials, community leaders (RT/RW), and community representatives, in order to capture perspectives from both implementers and policy beneficiaries. Data collection was conducted through the integration of three techniques: in-depth interviews to explore strategies and perceptions, field observations to verify actual waste disposal practices and facility availability, and documentation of village regulations to strengthen the validity of primary data.

Data analysis was carried out continuously following the Miles and Huberman model, which includes data reduction to sharpen focus, data display in systematic descriptive narratives, and conclusion drawing through a verification process. To ensure research credibility, rigorous triangulation techniques were applied, including cross-checking between data sources, comparing data collection methods, and ensuring consistency over time, thereby enhancing the accuracy and objectivity of the findings.

RESULTS AND DISCUSSION

1. Supporting and Inhibiting Factors in Policy Implementation

The results of data analysis using NVivo 12 Plus reveal a significant imbalance between supporting and inhibiting factors in waste management governance at the research site. As visualized in the field findings, inhibiting factors dominate the narrative with a proportion reaching 27%, while supporting factors account for only 2%. This dominance of constraints indicates that waste management policy remains hindered by substantial structural and socio-cultural barriers, resulting in suboptimal implementation at the village level.

The imbalance between supporting and inhibiting elements is clearly illustrated in the field data analysis results presented below:

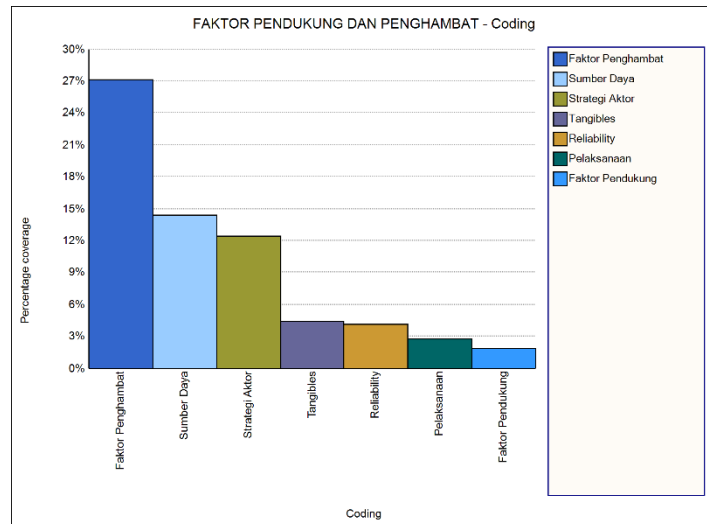


Figure 1. Coding Results of Supporting and Inhibiting Factors

Based on this visualization, the dominance of inhibiting factors is clearly evident, reaching 27%, in stark contrast to supporting factors which account for only 2%. This figure serves as a strong indication that waste management policy remains constrained by substantial structural barriers. The primary obstacle identified is the persistence of traditional practices, where communities continue to burn waste independently due to the absence of systematic disposal solutions. From the perspective of the *content of policy*, limited budget allocation and the lack of adequate waste transportation facilities result in inconsistent service delivery. This condition negatively affects the reliability dimension of public service from the community's perspective.

Empirically, the main barriers stem from low collective awareness among residents, who prefer to burn waste independently rather than manage it systematically. This situation is exacerbated by resource limitations (14%), such as the absence of temporary disposal sites (TPS) and transportation facilities, which directly reduce the reliability and tangibles dimensions in public service standards. As a consequence, a crisis of public trust emerges regarding the effectiveness of the programs offered by the village government.

From the perspective of Merilee S. Grindle's theory, these findings confirm that the *context of implementation* in the field has not yet supported policy success. Although actor strategies appear at a proportion of 12% through socialization efforts, these initiatives have not been sufficient to counterbalance technical barriers and entrenched community habits. The minimal presence of supporting factors reflects weak institutional synergy, indicating the need for policy reorientation that not only addresses technical aspects but also strengthens persuasive educational approaches to fundamentally transform community behavior.

2. Social Context and Community Support

Social acceptance is a key variable that determines the extent to which a policy can be rooted at the village level. In rural ecosystems, policies do not only confront administrative regulations but must also negotiate with established value systems. The dynamics of community support for this waste management program can be mapped through the following analytical results:

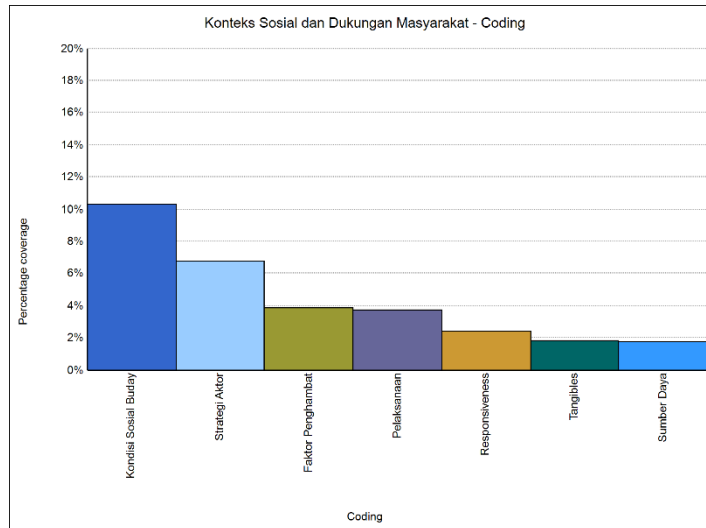


Figure 2. Coding Results of Social Context and Community Support

Based on the data visualization in Figure 2, socio-cultural aspects emerge as the highest indicator, with a percentage of 10.3%. This finding highlights that traditions, habits, and patterns of social relations among community members play a significant role in determining the effectiveness of environmental programs in Pincara Village. Although residents cognitively begin to understand the health risks associated with waste accumulation, their behavioral patterns remain rooted in practical methods passed down through generations. The absence of proper waste disposal facilities forces residents to continue practices such as burning waste or disposing of it in vacant land as the quickest and most economical solution, ultimately normalizing environmentally unfriendly behavior.

Community support at the research site tends to be reactive and highly dependent on local leadership figures. Public participation in environmental activities, such as “Clean Friday” programs, generally occurs due to direct mobilization by community leaders or village officials rather than being driven by internalized awareness. This indicates that social support remains at the level of pseudo-participation, where community involvement is motivated more by social norms or respect toward local leaders than by a genuine sense of personal responsibility for environmental sustainability.

Further analysis of this phenomenon suggests that transforming such a social context requires a more sociological rather than purely technocratic approach by the village government. Given the strong socio-cultural influence,

policy interventions must be capable of transforming “old habits” into a “new identity” through the creation of positive social norms. If waste management practices can be linked to local wisdom values or collective pride as a “healthy village,” community participation is likely to shift from administrative mobilization toward sustainable engagement. Without synchronization between policy content and existing social structures, waste management programs will remain seasonal initiatives that lose momentum once top-down directives diminish.

3. Analysis of Community Participation

Community participation is not merely the physical presence of residents in environmental activities, but rather a manifestation of a sense of ownership over the sustainability of the village environment. In the context of Pincara Village, participation is positioned as a determining variable that ensures whether a waste management program can be sustained in the long term or merely becomes a ceremonial activity.

Before further analysis, the dynamics of participation dimensions identified in this study can be observed in the following visualization:

Community participation is positioned as a key determinant of sustainability. The results of its dimensional analysis are presented in the following visualization:

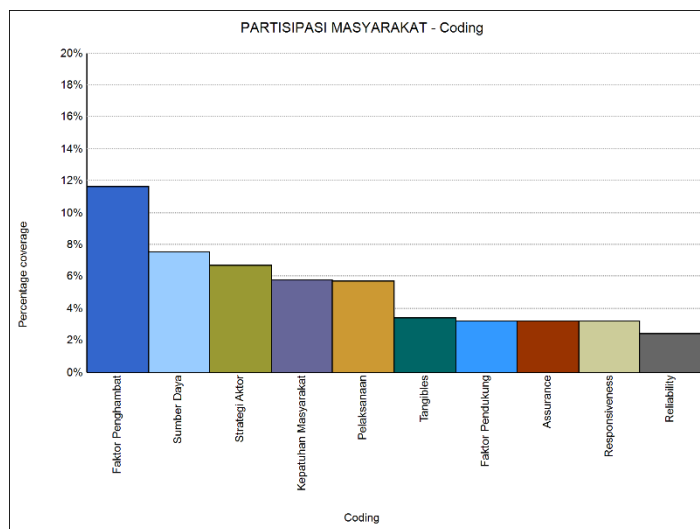


Figure 3. Coding Results of Community Participation

Based on the data presented in Figure 3, the high percentage of inhibiting factors, reaching 11.58% within the participation dimension, indicates a fundamental anomaly. The intention of residents to actively participate is often hindered by the lack of adequate supporting infrastructure at the local level. The low level of independent participation in Pincara Village does not reflect individual apathy, but rather represents a logical consequence of an operationally unprepared support system. According to informants, residents often experience uncertainty regarding the final destination of their waste due to the incomplete provision of facilities promised by the village government. This

condition is further exacerbated by inconsistent socialization efforts, resulting in the failure to transform behavior from mere compliance into autonomous individual awareness.

Theoretically, the level of participation in Pincara Village remains at a functional stage, where residents primarily follow top-down instructions without being involved in the initial design of the waste management system. Such top-down involvement is inherently fragile, as it is not grounded in an understanding of long-term benefits. Therefore, strengthening the quality of public services through the provision of tangible and consistent physical evidence (tangibles) becomes a fundamental requirement to restore public trust. Without visible and accessible facilities, any call for participation will likely be perceived as an additional burden. Moving forward, a paradigm shift is needed—from mobilized participation toward transformative participation—where village communities are positioned as active agents with autonomy in managing and sustaining their environmental ecosystem.

CONCLUSION AND RECOMMENDATIONS

This study concludes that the implementation of waste management policy in Pincara Village remains suboptimal due to a significant gap between policy design and field reality. The magnitude of structural and technical barriers, reaching 27%, results in programs that tend to be symbolic and have yet to produce meaningful ecological impacts. The root of this issue lies in the limited availability of supporting resources and the low quality of public services, particularly the absence of vital infrastructure such as temporary waste disposal sites (TPS) and transportation facilities, which weakens the reliability dimension of service delivery. This condition ultimately leads to a crisis of public trust, prompting residents to continue relying on conventional practices such as independent waste burning. Although community participation exists, it remains reactive and functional, largely driven by mobilization from community leaders rather than intrinsic awareness. This low level of autonomous participation indicates that existing support systems have not successfully transformed cognitive understanding into sustainable environmental practices.

As a corrective measure, the Pincara Village Government is recommended to strengthen the tangible aspect of public services by allocating village budgets toward the provision of adequate waste management infrastructure, ensuring that residents have reliable access to services. In addition, a redesign of public communication strategies is necessary, emphasizing persuasive approaches that integrate local cultural values in order to shift community behavior from passive participation toward autonomous collective awareness. Finally, it is essential for the village government to establish strategic partnerships with community-based organizations or to develop village-owned enterprises specifically focused on waste management.

These efforts are expected to create a more independent and professional governance system, thereby reducing reliance on top-down directives and fostering sustainable environmental management in Pincara Village.

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