



Research Article

Environmental Governance in Practice: Strategies of the Environmental Agency in Managing Coastal Coal Waste in Gampong Peunaga Pasi, West Aceh, Indonesia

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Abstract

Coal waste pollution along the coast of Gampong Peunaga Pasi, West Aceh, has become a persistent environmental and socio-economic crisis, disproportionately affecting coastal communities and revealing gaps in local environmental governance. This study analyzes the strategic responses of the West Aceh Environmental Agency (DLH) to the issue, using a qualitative case study approach based on secondary data sources, including policy documents, government reports, media coverage, and environmental regulations. Findings indicate that while DLH has implemented routine strategies such as water quality testing, corporate monitoring, and administrative reporting, these efforts lack enforcement power and fail to generate substantive environmental protection. The agency's actions remain procedural, constrained by limited authority and poor coordination with the provincial environmental office (DLHK Aceh). Additionally, no formal collaboration mechanisms exist between DLH, PT Mifa Bersaudara (the alleged polluter), and affected communities, resulting in governance fragmentation and deepened public distrust. The study also reveals that strong national environmental laws are not matched by institutional empowerment at the local level. Without the authority to sanction violations or compel remediation, DLH's role becomes largely symbolic. This regulatory disempowerment contributes to recurring ecological harm, economic displacement, and institutional inaction. This case illustrates how decentralized environmental governance in Indonesia struggles with implementation failure and accountability gaps. The study recommends strengthening local enforcement authority, institutionalizing stakeholder collaboration, and ensuring greater transparency and responsiveness in environmental governance to protect vulnerable communities and ecosystems.

Keywords: environmental governance, coal waste, policy implementation, local government, West Aceh, institutional capacity, environmental justice

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Introduction

Environmental pollution caused by industrial waste has become a strategic issue in many regions of Indonesia, particularly in areas with intensive mining activities such as West Aceh. One of the most prominent sources of pollution is coal spillage along the coast of Gampong Peunaga Pasi, allegedly originating from the operations of PT Mifa Bersaudara. This spillage not only contaminates the marine ecosystem but also disrupts the economic activities of coastal communities, especially fishermen who depend on marine resources for their livelihoods (Dewi 2022). The declining quality of the coastal environment poses a serious threat to both ecosystem sustainability and local welfare. Thus, strategic efforts from local government institutions, particularly the Environmental Agency (Dinas Lingkungan Hidup or DLH), are urgently needed to mitigate the impact of coal waste in the area.

While coal mining does contribute to regional economic growth, its ecological impacts must not be overlooked. One of the key regulatory frameworks addressing environmental responsibility is Law No. 32 of 2009 on Environmental Protection and Management. This law mandates that mining companies implement preventive measures and undertake environmental restoration in the event of ecological damage (UU No. 32/2009). However, enforcement of these regulations on the ground remains weak, mainly due to limited monitoring and the absence of strong sanctions for violations. This legal ineffectiveness exacerbates environmental degradation and creates ecological injustice for affected communities.

As a technical institution, the Environmental Agency plays a strategic role in waste management. Its responsibilities include monitoring environmental quality, reporting to provincial authorities, and educating the public about the impacts of pollution. In practice, however, the agency often faces limitations in authority and resources, making it difficult to enforce environmental laws effectively. This illustrates a gap between the agency's formal mandate and its actual capacity for implementation (Peleckis, Peleckienė, and Peleckis 2012). Therefore, analyzing the

strategies adopted by DLH in addressing coal waste is crucial to understanding its effectiveness in protecting the regional environment.

This study is also relevant to the broader literature on public administration, particularly the concept of environmental governance. From this perspective, environmental management is not solely the responsibility of the government but requires active collaboration between communities, government agencies, and private sector actors (Lemos and Agrawal 2006). In the case of Gampong Peunaga Pasi, such collaboration remains weak, resulting in mistrust and conflicts of interest in resolving the coal pollution problem. The strategies implemented by DLH must be assessed within this governance framework to determine whether they reflect the principles of participation, responsiveness, and sustainability.

Based on this context, the aim of this research is to analyze the strategies employed by the Environmental Agency of West Aceh Regency in managing coal waste along the coast of Gampong Peunaga Pasi. The study focuses on how DLH responds to community complaints, supervises mining companies, and encourages corrective actions to address pollution. This research contributes to academic discourse on strengthening public policy practices in the environmental sector and offers practical evaluation for local governments to improve their industrial waste management systems. By understanding these strategies, we can evaluate the effectiveness of local government roles in promoting coastal ecosystem sustainability amidst the pressures of extractive industries.

Literature Review

Environmental governance has emerged as a key framework for understanding how states, civil society, and the private sector interact to manage natural resources and respond to environmental degradation. Governance in this context involves the structures, institutions, and processes that determine how power and responsibilities are exercised in environmental management (Lemos

and Agrawal 2006). It includes both formal policy mechanisms and informal practices, including community participation, monitoring, and accountability. Effective environmental governance must promote transparency, participation, and responsiveness to both ecological conditions and social needs (Lockwood et al. 2010). In Indonesia, the decentralization of environmental authority to regional governments has created both opportunities and challenges in the implementation of sustainable governance at the local level.

Strategic management theory offers a useful lens to assess how government agencies respond to environmental crises through planning, implementation, and evaluation. A strategy, in this context, is not merely a plan, but a dynamic process of setting goals, allocating resources, and adapting to changing external conditions (Bryson, Crosby, and Bloomberg 2014). Public sector organizations often face complex, multi-stakeholder environments, requiring them to align their strategies with regulatory mandates, political interests, and community expectations. The environmental agency's response to coal waste pollution, for example, must consider not only technical environmental standards but also social justice and public pressure. Integrating strategic management into environmental policy implementation enhances the responsiveness and effectiveness of government actions.

The theory of collaborative governance is also highly relevant to environmental problem-solving, especially in conflict-prone areas where local communities, governments, and industries are stakeholders. Ansell and Gash (2008) describe collaborative governance as a process that brings together diverse actors in consensus-oriented, deliberative processes to resolve public issues (Ansell and Gash 2008). In contexts like Gampong Peunaga Pasi, where coal waste affects local livelihoods, collaboration between the environmental agency, the mining company (PT Mifa), and affected communities is essential. However, power imbalances and weak enforcement mechanisms often hinder genuine

collaboration, making it crucial to examine how inclusive and accountable these governance processes truly are.

Another key concept is environmental justice, which emphasizes the fair treatment of all communities regardless of their socioeconomic status in the creation and enforcement of environmental laws and policies (Bullard 2018). The recurrence of coal waste pollution in Gampong Peunaga Pasi raises concerns about environmental injustice, where marginalized communities bear disproportionate ecological burdens while receiving limited protection from state institutions. Scholars argue that environmental justice must be incorporated into the design and execution of environmental governance, ensuring that affected communities have access to decision-making processes and legal remedies (Walker 2012).

Lastly, previous case studies from other parts of Indonesia and Southeast Asia highlight the importance of institutional capacity and political will in responding to environmental hazards. Weak intergovernmental coordination, bureaucratic inertia, and lack of enforcement are persistent barriers in local environmental management (Resosudarmo et al. 2019). In many cases, local agencies like DLH face limitations in funding, staffing, and authority, which reduce their ability to confront corporate actors or enforce environmental compliance. Understanding the institutional constraints and strategic choices of these agencies is critical to evaluating their role in mitigating environmental risks and protecting vulnerable communities.

Methods

This study adopts a qualitative research design using a case study approach to explore the strategies employed by the West Aceh Environmental Agency (DLH) in managing coal waste pollution in Gampong Peunaga Pasi. The qualitative approach is appropriate for examining complex environmental governance issues involving institutional behavior, public policy responses, and socio-environmental impacts. A case study design enables the researcher to focus intensively on the real-life context in which the coal waste contamination occurred and how local institutions responded to it.

The research relies exclusively on secondary data sources, which include government reports, official statements, environmental quality assessment results, regional regulations, and media coverage. These data were collected through document analysis of DLH publications, policy documents, public meeting summaries, and online news articles reporting the community impact of coal waste spillage. Relevant academic literature and environmental laws, such as Law No. 32 of 2009 on Environmental Protection and Management, were also reviewed to contextualize the institutional framework governing environmental responsibilities.

Data were analyzed using qualitative content analysis, focusing on recurring themes related to environmental governance, institutional response strategies, community complaints, and policy enforcement. Thematic coding was applied to extract patterns of action by DLH, including their monitoring activities, coordination with provincial authorities, and response to repeated violations by PT Mifa Bersaudara. This analytical technique allows for the identification of gaps between policy and implementation, as well as the alignment—or lack thereof—between legal mandates and actual governance practices.

The validity of the findings was enhanced through triangulation of data sources, comparing media narratives with government statements and formal regulations. This approach strengthens the reliability of conclusions by cross-verifying evidence from multiple perspectives. While primary data such as interviews or field observations were not conducted, the use of diverse secondary data ensures that the research captures a comprehensive understanding of the issue from both institutional and community viewpoints.

Overall, the methodology provides a systematic foundation for analyzing how local government institutions in Indonesia respond to environmental pollution crises using documented strategies and existing public records. The case of Gampong Peunaga Pasi serves as a critical lens to evaluate the effectiveness and limitations of regional environmental governance in resource-constrained settings.

Results and Discussion

Recurring Coal Waste Pollution and Community Impacts

Coal waste pollution along the coast of Gampong Peunaga Pasi has become a recurrent environmental and social crisis. Secondary data from news sources and community reports indicate that coal chunks regularly wash ashore, especially after high tides or storms, suggesting poor containment measures by nearby coal transport or storage facilities. The presence of black particulate matter, scattered coal debris, and discolored seawater has visibly altered the coastal landscape, affecting the aesthetics and ecology of the area. The pollution not only disrupts the natural environment but also triggers anxieties and frustration among residents who rely on coastal resources for their daily survival. This recurrence reflects the systemic nature of the problem and the failure of existing environmental safeguards to provide sustained protection.

For local fishermen, the consequences are both immediate and long-term. Fish catches have decreased significantly, with some nets bringing up lumps of coal instead of fish, further reducing household income. The contamination of the coastal waters also affects the natural spawning and feeding grounds of marine species, leading to disruptions in the ecological food web. As reported by community members, fish and shrimp are now harder to find near the shore, forcing some to venture farther into deeper and more dangerous waters, which increases fuel costs and occupational risks. These developments not only exacerbate economic hardship but also pose a threat to food security and traditional livelihoods that have existed for generations. This situation underscores the unequal ecological burdens borne by rural and coastal populations, a hallmark of environmental injustice (Bullard 2018).

Beyond the economic losses, the community also experiences emotional and cultural disconnection from their environment. The beach, once used for drying seafood, family gatherings, and ceremonial purposes, is now perceived as dirty and

hazardous. Residents have voiced concerns over potential health risks from coal dust inhalation and water contamination, particularly for children. However, the lack of public health monitoring and formal environmental health assessments leaves the community with no scientific evidence to support their concerns, thereby weakening their claims when confronting government officials or corporate representatives. This absence of data and institutional acknowledgment contributes to a cycle of disempowerment and distrust, limiting the community's ability to advocate for justice and remediation effectively.

From a governance standpoint, this case illustrates how pollution becomes "normalized" when repeated incidents are met with passive institutional responses. Despite being reported multiple times, including via social media, news outlets, and village leaders, the pollution continues without meaningful remediation. This reflects a governance vacuum, where accountability is unclear and the responsible actors—government or private sector—avoid assuming responsibility. The community, in turn, becomes the de facto cleanup agent, reportedly collecting and selling the coal for minimal compensation rather than receiving institutional protection or reparations (Iskandar 2024). This commodification of pollution further distorts justice and shifts responsibility from polluters to the victims.

In the absence of strong institutional support, the community's ability to resist or demand environmental accountability is severely constrained. Many residents lack legal literacy, organizational resources, or media access to amplify their grievances. Attempts to report pollution incidents to the provincial environmental agency (DLHK Aceh) have largely resulted in delayed or symbolic responses, with no enforcement actions taken against the alleged polluter. This lack of response not only emboldens corporate negligence but also erodes public trust in environmental governance systems. In such contexts, environmental disenfranchisement becomes institutionalized, where affected populations are systematically excluded from decision-making and deprived of justice.

In summary, the recurring coal waste pollution in Gampong Peunaga Pasi exemplifies a multifaceted crisis that combines ecological damage, economic vulnerability, institutional failure, and social injustice. The community faces a triple burden: environmental degradation, economic displacement, and administrative neglect. While DLH has made some technical interventions, the absence of consistent enforcement and community engagement leaves the problem unresolved. These findings illustrate the urgent need to integrate environmental justice and participatory governance into local environmental management frameworks. Only through inclusive and accountable institutions can pollution crises like this be addressed in a way that restores ecological integrity and protects community well-being.

Institutional Response and Strategic Limitations

The West Aceh Environmental Agency (DLH) has officially responded to the coal waste issue through a series of technical and administrative actions. According to secondary data, these include annual seawater quality assessments, routine monitoring of industrial activities, written reports submitted to provincial authorities, and verbal warnings issued to the alleged polluter, PT Mifa Bersaudara. These actions demonstrate that DLH has a strategic framework for environmental oversight. However, the recurrence of pollution suggests that these efforts, while visible, have not been impactful. This disconnect highlights a common phenomenon in public administration—strategic planning without effective execution (Bryson et al. 2014).

Despite repeated public complaints and media attention, the agency has not imposed any concrete penalties or legally binding sanctions on PT Mifa. This is partly because DLH lacks formal authority to enforce environmental penalties; such powers are held by the provincial agency (DLHK Aceh). Consequently, DLH is limited to performing procedural compliance—monitoring, reporting, and issuing

recommendations—without the ability to escalate enforcement autonomously. This vertical governance gap reflects structural challenges in Indonesia's decentralized environmental governance system, where local agencies are administratively responsible but legally powerless in many high-stakes environmental conflicts (Resosudarmo et al. 2019).

DLH's position within this governance structure often results in it functioning as an "informational relay," rather than an enforcement authority. The agency collects data, files reports, and communicates with stakeholders, but ultimately depends on provincial bodies to act. Unfortunately, secondary sources reveal that DLHK Aceh has shown little urgency or willingness to take action, even in the face of repeated environmental violations. This absence of provincial intervention reinforces a cycle of bureaucratic inertia, where responsibility is diffused and no institution is held accountable for ensuring environmental justice. The lack of intergovernmental coordination weakens the overall institutional response, leaving affected communities in a state of prolonged vulnerability.

In terms of strategy, DLH appears to operate within a technical-rational framework, emphasizing compliance with monitoring schedules and administrative protocols. However, this approach often ignores the sociopolitical dynamics of environmental crises—such as corporate resistance, community mistrust, and the need for participatory mechanisms. Without engaging directly with impacted communities or advocating forcefully on their behalf, DLH's strategy remains top-down and limited in scope. Strategic public management theory emphasizes the importance of adaptive leadership, stakeholder collaboration, and outcome-based evaluation, which are largely absent in this case (Bryson et al. 2014).

Another critical limitation lies in the lack of transparency and feedback mechanisms. While DLH collects environmental data, there is little evidence that this information is shared with the public in an accessible or meaningful way. This undermines public trust and prevents communities from actively participating in

environmental decision-making. Moreover, the agency's failure to publicly confront corporate actors or escalate the issue to national authorities reflects a cautious, risk-averse institutional culture. Such behavior is typical of under-resourced government bodies operating in politically sensitive industries like mining, where regulatory capture and elite influence are potential constraints on bold action (Conrad 2022; Ostrom 2010).

In conclusion, while the West Aceh Environmental Agency has demonstrated strategic intent, its limited mandate, weak intergovernmental coordination, and narrow technocratic focus hinder effective environmental governance. The agency's response—though procedurally adequate—fails to address the structural drivers of pollution, enforce compliance, or advocate for vulnerable communities. This case exemplifies how formal strategies can mask institutional weaknesses, and how implementation failure is not just a matter of capacity but also of political will and system design. For environmental governance to be effective, especially in conflict-prone sectors like coal, local institutions must be empowered not only to monitor but also to act.

Absence of Effective Collaboration Mechanisms

Effective environmental governance increasingly depends on the ability of institutions to engage multiple stakeholders—government, private sector, and local communities—in collaborative processes. However, the case of coal waste pollution in Gampong Peunaga Pasi demonstrates a striking absence of structured collaboration between key actors. Despite the severity and recurrence of the pollution, there is no evidence of formalized dialogue platforms, community consultations, or joint planning sessions between the West Aceh Environmental Agency (DLH), PT Mifa Bersaudara, and affected residents. This lack of engagement is in direct contrast to the principles of collaborative governance, which emphasize

inclusive, consensus-oriented approaches to public problem-solving (Ansell and Gash 2008).

The failure to establish collaborative mechanisms has serious implications. Without inclusive dialogue, decisions regarding environmental response measures are made unilaterally, often favoring institutional convenience or corporate interests rather than community welfare. The local community, despite bearing the brunt of the pollution, is excluded from formal governance processes and left with minimal information about institutional actions. This exclusion breeds resentment and deepens the trust deficit between the public and governing institutions. Collaborative governance is not only about cooperation but also about power-sharing and legitimacy, which are notably absent in this context.

Secondary data show that the only interactions between DLH and the community occur reactively—such as when pollution is reported on social media or through informal complaints. These interactions are episodic and lack continuity, structure, or follow-up. Similarly, while PT Mifa has made occasional financial gestures (e.g., compensating residents who collect spilled coal), these actions are transactional rather than relational and do not constitute meaningful engagement. In collaborative governance theory, genuine collaboration requires long-term commitment, transparency, and mutual respect, which are entirely missing from the current model.

One reason for this collaboration gap is the lack of institutional mandate or incentive for DLH to facilitate participatory processes. The agency's primary performance metrics are tied to technical outputs—such as the number of reports submitted or tests conducted—not to the quality of stakeholder relationships or community satisfaction. Moreover, public participation is often treated as a procedural formality rather than a substantive element of environmental governance. In the absence of regulatory requirements or political pressure to collaborate, DLH defaults to a bureaucratic silo, focusing inward rather than

outward. This reflects a persistent problem in public administration, where intersectoral collaboration is undermined by fragmented mandates and risk-averse cultures.

From the corporate side, PT Mifa appears reluctant to engage in open public dialogue, possibly due to reputational risks, legal exposure, or a perceived lack of obligation. Rather than participating in joint solution-building, the company's approach has been limited to damage control and minimal compliance. This corporate detachment exacerbates the imbalance of power and knowledge between stakeholders. In such contexts, the absence of collaboration is not just an administrative gap—it becomes a structural barrier to justice, reinforcing asymmetries in access, voice, and influence (Lukes 2005).

In summary, the lack of effective collaboration mechanisms in managing coal waste in Gampong Peunaga Pasi highlights a profound weakness in local environmental governance. Rather than acting as facilitators of multi-stakeholder engagement, institutions have maintained rigid hierarchies and unilateral decision-making processes. This failure to build collaborative capacity not only hampers the resolution of pollution but also undermines social cohesion and trust in public institutions. If collaborative governance is to be realized, it must be institutionalized through formal policies, incentivized through performance metrics, and embraced as a normative value by both state and non-state actors.

Strategic Execution Without Policy Follow-Through

The West Aceh Environmental Agency (DLH) has outlined several strategies in response to the coal waste problem, including environmental monitoring, data reporting, and administrative coordination. On paper, these actions align with key components of public sector strategic management: situational analysis, program implementation, and institutional accountability. However, the effectiveness of these strategies is compromised by a lack of policy continuity and enforcement. DLH's strategic actions often stop at procedural stages, with little evidence of

tangible outcomes or corrective measures. This gap reflects what scholars term a “policy-practice disconnect”—where strategy exists as a formal output but fails to translate into real-world impact (Pressman and Aaron Wildavsky 1984).

One illustrative example is the agency’s annual seawater quality testing, which is used to assess potential pollution impacts. Although test results have been consistently documented and shared with provincial authorities, they have not triggered formal investigations or sanctions. In fact, according to DLH statements, the test results frequently show that water quality remains “within acceptable standards,” despite visible coal debris along the shoreline. This mismatch raises questions about measurement validity, environmental thresholds, and the reliance on quantitative indicators that may obscure qualitative or community-based evidence of harm. In such cases, strategy becomes ritualized compliance, serving bureaucratic logic rather than environmental justice (Meyer and Rowan 1977).

Moreover, DLH’s failure to escalate the case—either legally or politically—reveals institutional reluctance to challenge corporate actors or press higher-level authorities for action. While some of this may stem from legal limitations, it also indicates a deeper issue: the absence of strategic advocacy. Effective public sector strategy requires not only operational capacity but also leadership that is proactive, values-driven, and oriented toward long-term change. In the case of Gampong Peunaga Pasi, DLH’s role has been largely reactive, responding to problems as they arise rather than anticipating future risks or driving systemic solutions. This reflects a constrained strategic culture focused on output over outcome (Bryson et al. 2014).

Policy follow-through is further hindered by inter-institutional ambiguity. Responsibility for enforcement lies at the provincial level, but there appears to be no formal escalation protocol or response timeline. As a result, DLH continues to report violations without receiving feedback, guidance, or support from DLHK Aceh. This situation illustrates what (Hill and Hupe 2002) refer to as “implementation gaps,” where the absence of horizontal and vertical coordination disrupts the policy

chain. Even well-intentioned strategies become ineffective when not embedded in a coherent governance system with clear authority, accountability, and feedback loops.

Another dimension of weak follow-through is the lack of institutional learning. Despite the recurrence of coal waste incidents, DLH does not appear to revise or strengthen its response strategies over time. There is no evidence of adaptive planning, risk reassessment, or stakeholder feedback integration. In strategic management theory, the absence of such learning mechanisms leads to static strategies that repeat past actions without addressing their shortcomings. Without systematic reflection and course correction, institutions are likely to reproduce the same failures, perpetuating the status quo rather than driving improvement (Mintzberg, Ahlstrand, and Lampel 2021).

In conclusion, DLH's environmental strategy in West Aceh illustrates the limitations of execution without enforcement, planning without advocacy, and compliance without change. Although the agency performs many of the technical functions of environmental oversight, its lack of follow-through renders these efforts symbolic at best. The case reflects a broader pattern in public governance where the existence of formal strategy masks deeper structural weaknesses in institutional capacity and political alignment. To be effective, environmental strategies must be embedded in systems that ensure accountability, enable enforcement, and incentivize meaningful outcomes.

Regulatory Framework Without Local Empowerment

Indonesia's environmental regulatory framework—anchored in Law No. 32 of 2009 on Environmental Protection and Management—establishes clear principles for environmental stewardship, polluter accountability, and sustainable development. The law delegates significant responsibility to regional governments to implement monitoring, prevention, and remediation measures. However, the

case of Gampong Peunaga Pasi reveals a major disjuncture between the existence of strong legal norms and the weak institutional power of local environmental agencies. While the West Aceh Environmental Agency (DLH) is tasked with frontline oversight, it lacks the authority and resources necessary to enforce compliance or impose sanctions on polluters. This imbalance results in a situation where regulation exists in form but not in function (Friedmann 2023).

One key structural issue is the centralized location of enforcement power, which resides not with DLH but with the provincial environmental agency (DLHK Aceh). This vertical distribution of power undermines local autonomy and responsiveness, especially when provincial institutions are politically disengaged or administratively inactive. As shown in this case, despite repeated reports by DLH, no formal enforcement has been undertaken by the provincial body, effectively paralyzing local governance. This situation illustrates the limits of Indonesia's decentralization policy, where responsibilities are transferred downward without matching authority or institutional support (Ribot, Agrawal, and Larson 2006).

Another dimension of disempowerment lies in budgetary constraints and human resource limitations at the district level. DLH West Aceh operates with limited staff and a modest operational budget, which restricts its ability to conduct frequent field inspections, independent sampling, or legal follow-ups. Without adequate financial and technical support, even the most well-intentioned policies cannot be executed effectively. In regulatory theory, this is referred to as a "capacity trap", where agencies are structurally constrained from achieving the mandates assigned to them, leading to symbolic rather than substantive regulation (Black 2008).

The failure to empower local institutions also has severe implications for community protection. Residents of Gampong Peunaga Pasi have limited channels for submitting formal complaints, accessing legal aid, or demanding institutional redress. In the absence of strong local enforcement, polluting companies like PT

Mifa can operate with impunity, knowing that regulatory threats are weak or non-existent. This power imbalance undermines the principle of environmental justice, where communities should have not only legal rights but institutional allies to uphold those rights. When laws are not backed by effective local governance, they risk becoming tools of false assurance, offering legitimacy without protection (Walker 2012).

Furthermore, weak local empowerment contributes to institutional fragmentation, where agencies operate in silos with limited inter-agency coordination or shared learning. DLH lacks formal channels to collaborate with health agencies, marine and fisheries departments, or legal institutions to build comprehensive responses to pollution. This hampers not only enforcement but also problem diagnosis and preventive planning. Environmental governance requires integration across sectors, but fragmented authority and rigid mandates keep local institutions from functioning holistically (Ostrom 2009).

In conclusion, while Indonesia's legal framework for environmental protection appears robust, its implementation suffers from profound asymmetries in power and capacity between central, provincial, and local actors. The case of West Aceh demonstrates that without empowering local institutions—through legal authority, fiscal resources, and intersectoral collaboration—regulation will remain declarative rather than operative. Ensuring environmental justice and sustainable governance demands a shift from decentralization on paper to empowerment in practice.

Conclusion

This study examined the strategies of the West Aceh Environmental Agency (DLH) in managing recurring coal waste pollution in Gampong Peunaga Pasi, using a qualitative case study approach based on secondary data. The findings highlight that, although DLH has implemented strategic actions such as monitoring and reporting, these measures have not translated into meaningful environmental

protection or pollution deterrence. Instead, the agency's efforts remain largely procedural and symbolic, constrained by structural limitations in authority, funding, and institutional coordination.

Recurring coal waste incidents have deeply affected local livelihoods, especially for coastal communities that rely on fishing and marine resources. These impacts reflect not only ecological degradation but also social injustice, as affected residents receive little institutional protection or representation in decision-making. The absence of formal collaboration mechanisms between the government, local communities, and PT Mifa further exacerbates governance failure. Environmental responsibility has become diffused, while polluters remain largely unaccountable.

The study further reveals that regulatory frameworks—although strong on paper—fail to empower local institutions. DLH lacks enforcement power, while the provincial authority remains inactive despite receiving repeated alerts. This governance disconnects lead to implementation failure and undermines the principles of environmental justice, community participation, and sustainable resource management. Overall, the case exemplifies a broader pattern of governance without empowerment—a system where institutions are tasked with protecting the environment but are not equipped to do so.

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