

Cross-Actor Collaboration in Environmental Governance in Palu City

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ABSTRACT

Purpose: This study aims to examine cross-actor collaboration in environmental governance and its role in strengthening coordination, enhancing community participation, improving policy implementation, and addressing institutional challenges at the local level.

Subjects and Methods: The research employs a qualitative literature review approach. Data were collected from peer-reviewed academic journals, policy reports, and relevant institutional documents related to collaborative governance and environmental management. The selected sources were systematically analyzed using thematic synthesis to identify key patterns, dynamics, and challenges of cross-actor collaboration involving government agencies, civil society organizations, the private sector, and local communities.

Results: The findings show that multi-stakeholder collaboration contributes to more integrated coordination mechanisms and helps reduce institutional fragmentation in environmental governance. Collaborative arrangements promote shared responsibility among actors and strengthen community participation through social learning, knowledge exchange, and capacity building. These processes support more adaptive and sustainable environmental management practices. In addition, collaborative governance improves the effectiveness of environmental policy implementation through joint monitoring, enhanced accountability, and more efficient use of resources. However, the study also identifies persistent challenges, including unequal power relations, limited organizational capacity, institutional fragmentation, and policy instability, which can undermine the continuity and long-term sustainability of collaborative initiatives.

Conclusions: The study concludes that cross-actor collaboration plays a significant role in improving local environmental governance but requires stronger institutional frameworks, inclusive governance mechanisms, and sustained stakeholder commitment to ensure long-term effectiveness and sustainability.

INTRODUCTION

Environmental issues in urban areas are becoming increasingly complex with the increasing rate of urbanization, population growth, and pressure on natural resources (Patel & Raval., 2024; Arfanuzzaman & Dahiya, 2019). Cities in Indonesia face various environmental challenges, such as air and water quality degradation, increasing waste volumes, land conversion, and vulnerability to natural disasters. This situation demands a paradigm shift in environmental management that relies not solely on the role of the government but also involves various stakeholders in an active and integrated manner (Pasaribu & Kahpi, 2025).

The concept of environmental governance developed in response to the limitations of a top-down approach to environmental governance. Environmental governance emphasizes the importance

of participatory, transparent, and adaptive decision-making processes, involving both state and non-state actors in natural resource management (Sawir & Sumardi, 2025). This approach is seen as capable of accommodating the complexity of multidimensional environmental issues while simultaneously increasing the legitimacy and effectiveness of public policies in the environmental sector.

One key element of environmental governance is cross-actor collaboration. Hutagalung & Hanani (2025) define collaborative governance as a joint decision-making process involving public and non-public actors in a formal forum to achieve common goals. In the context of environmental management, cross-actor collaboration enables resource synergy, knowledge exchange, and a more proportional division of roles. Furthermore, collaboration contributes to building trust among stakeholders and enhancing institutional capacity to address dynamic environmental challenges (Cahyono, 2026).

Palu City has geographic and social characteristics that make it both strategic and vulnerable to environmental issues. As a coastal city located in a disaster-prone zone, Palu faces challenges in spatial planning management, post-disaster environmental rehabilitation, and the protection of coastal ecosystems and watersheds. Furthermore, limited local government capacity, in terms of funding, human resources, and institutional infrastructure, often hinders the effective implementation of environmental policies. Therefore, the involvement of non-governmental actors such as local communities, civil society organizations, the private sector, and universities is becoming increasingly important in supporting environmental conservation efforts at the local level.

While cross-actor collaboration offers numerous potential benefits, its implementation on the ground is not always optimal. Several studies have shown that collaboration often faces obstacles such as differing interests between actors, unequal power relations, weak coordination between institutions, and low levels of trust (Kolk & Lenfant, 2015; Lubell, 2015). Furthermore, limited regulations supporting multi-stakeholder partnerships and suboptimal cross-sector coordination mechanisms also hinder the realization of collaborative and sustainable environmental governance.

In the Indonesian context, decentralization policies grant regional governments greater authority in environmental management. However, decentralization also demands stronger governance capacity, particularly in building cross-sector and cross-actor collaboration at the local level (Meutia et al., 2025; Dipa et al., 2025). Palu City, as part of the regional government system, faces the challenge of developing an adaptive and contextual environmental governance model tailored to the social, economic, and ecological characteristics of its region.

Based on these conditions, this study aims to analyze the forms and patterns of cross-actor collaboration in environmental governance in Palu City, as well as to identify the roles of each stakeholder and the challenges faced in the collaborative process. This research is expected to provide theoretical contributions in the development of collaborative environmental governance studies, as well as provide practical recommendations for local governments and other stakeholders in strengthening sustainable environmental governance at the local level.

METHODOLOGY

Research Design and Approach

This study employs a qualitative approach using a literature review method. This approach is selected to obtain a comprehensive understanding of cross-actor collaboration in environmental governance and to identify patterns, challenges, and best practices that have been implemented in various contexts, particularly at the local level. The literature review method enables the researcher to systematically analyze existing academic sources in order to develop a strong theoretical foundation and conceptual framework for the study. Furthermore, this method allows the integration of multiple perspectives from previous studies related to collaborative governance, environmental management, and multi-stakeholder partnerships. By synthesizing diverse scholarly viewpoints, this research aims to produce a holistic analysis that reflects the complexity of environmental governance processes.

Data Sources and Collection Techniques

The data used in this study were obtained from various academic and institutional sources, including peer-reviewed national and international journal articles, academic books, reports from international and national organizations, and government policy documents related to environmental governance and cross-sector collaboration. Literature searches were conducted using academic databases such as Google Scholar, Scopus, ScienceDirect, and Garuda (Garba Rujukan Digital). Keywords used in the literature search included “environmental governance,” “collaborative governance,” “multi-stakeholder collaboration,” “cross-actor partnership,” and “local environmental management.” The inclusion criteria focused on publications that were relevant to the research topic, academically credible, and published within the last ten years to ensure data relevance and currency. Studies that addressed the Indonesian context or urban environmental governance were prioritized to enhance the contextual relevance of the analysis.

Literature Selection Procedure

The literature selection process was conducted in several stages. The first stage involved an initial screening of titles and abstracts to identify studies that were aligned with the research focus. The second stage consisted of filtering the selected sources based on content relevance, methodological rigor, and theoretical contribution. The final stage involved an in-depth review of the selected literature to extract key information related to collaborative governance concepts, actor roles, coordination mechanisms, and institutional challenges. This systematic selection process was designed to minimize selection bias and ensure that only high-quality and relevant sources were included in the analysis. As a result, the reviewed literature provides a solid empirical and theoretical basis for understanding cross-actor collaboration in environmental governance.

Data Analysis Technique

Data analysis was conducted using thematic analysis. This process involved organizing the collected information into major thematic categories, such as collaborative governance frameworks, stakeholder roles, coordination mechanisms, implementation challenges, and the impacts of collaboration on environmental sustainability. Each theme was analyzed descriptively and comparatively to identify common patterns, differences, and emerging trends across previous studies. The findings from the thematic analysis were then synthesized to develop a conceptual framework relevant to the context of Palu City. This synthesis process enabled the integration of theoretical insights and empirical evidence, providing a structured basis for interpreting cross-actor collaboration practices in local environmental governance.

Data Validity and Reliability

To ensure data validity and reliability, this study applied source triangulation by comparing information obtained from different types of literature, including academic journals, books, and policy documents. Cross-referencing similar findings across multiple sources was also conducted to ensure consistency and accuracy. The use of credible and peer-reviewed sources enhances the trustworthiness of the research findings. Consequently, the results of this study are expected to provide academically robust insights that can support evidence-based recommendations for strengthening collaborative environmental governance at the local level.

RESULTS AND DISCUSSION

Strengthening Coordination Between Stakeholders

Cross-actor collaboration in environmental governance is understood as a response to the limitations of hierarchical and fragmented approaches to environmental governance. Andreastuti & Ayu (2025) emphasize that modern environmental governance demands the involvement of state and non-state actors to manage natural resources in a more adaptive and participatory manner. In urban contexts, the complexity of environmental issues such as waste management, coastal degradation, and disaster risk requires cross-sector coordination that cannot be resolved by the government alone. Therefore, multi-stakeholder collaboration is a strategic mechanism for integrating the technical capacity, resources, and knowledge possessed by various actors.

Strengthening coordination between stakeholders through collaborative mechanisms contributes to the increased effectiveness of public decision-making. Collaborative governance encourages the establishment of dialogue forums that allow public and non-public actors to interact directly in the policy formulation process. This interaction strengthens information exchange, narrows gaps in perceptions between actors, and improves the quality of the resulting policies. In practice, structured coordination also helps reduce program overlap and increase the consistency of environmental policy implementation at the local level.

In addition to strengthening coordination, cross-actor collaboration also plays a role in building institutional capacity and social learning. Collaborative governance not only produces policy outputs but also creates a collective learning process that strengthens trust, legitimacy, and commitment among stakeholders (Newig et al., 2018; Anwar et al., 2025). Through collaborative processes, local actors gain access to technical knowledge and best practices in environmental management. This is crucial in regional contexts with limited resources and institutional capacity, as collaboration enables sustainable knowledge transfer and capacity building.

However, the literature also shows that cross-actor collaboration is not free from structural and institutional challenges. Power imbalances between actors, differing interests, and weak institutional frameworks can hinder the effectiveness of collaboration (Suwandi et al., 2025). Actors with greater resources often dominate the decision-making process, thus reducing the participation of weaker actors. Furthermore, cross-sector coordination is often hampered by rigid bureaucracy and low integration between institutions, which impacts the slow implementation of environmental programs.

From a sustainable development perspective, cross-actor collaboration is seen as a crucial instrument for achieving inclusive and equitable environmental governance. Akibu (2025) emphasized that multi-stakeholder partnerships are a key prerequisite for achieving sustainable development because they simultaneously integrate social, economic, and environmental dimensions. A collaborative approach enables local community involvement in decision-making, strengthens public accountability, and enhances the legitimacy of environmental policies. Thus, cross-actor collaboration serves not only as a technical coordination mechanism but also as a strategic instrument for building more adaptive and participatory environmental governance.

Increasing Community Participation and Local Capacity

Community participation is a key component of collaborative-based environmental governance because it enables direct citizen involvement in the planning, decision-making, and implementation of environmental policies. The concept of the ladder of citizen participation emphasizes that meaningful participation extends beyond consultation and includes active community involvement in decision-making (Samosir, 2025). In the context of environmental governance, substantial participation fosters a sense of ownership of environmental programs, thereby enhancing the sustainability and effectiveness of policy implementation at the local level.

Collaboration across actors opens up broader opportunities for community involvement in environmental management. A participatory approach to natural resource management allows for the integration of local knowledge with scientific knowledge, resulting in policies that are more contextual and responsive to community needs (Sari et al., 2025). Local community involvement also strengthens the legitimacy of environmental policies because the resulting decisions reflect the aspirations and interests of groups directly affected by environmental change.

In addition to increasing participation, collaborative approaches contribute to strengthening local capacity through social learning and knowledge transfer. Dewi et al. (2025) explain that co-management and collaborative governance enable knowledge exchange between actors, improve community technical skills, and strengthen community institutions. This process is particularly important in the context of regions with limited resources, as strong local capacity can enhance communities' ability to manage the environment independently and sustainably.

Increasing local capacity is also related to strengthening social networks and community institutions. Social capital, such as trust, networks, and collective norms, plays a crucial role in supporting collective action at the community level (Yunita et al., 2025). In environmental governance, strong

social capital accelerates the coordination process between local actors and strengthens social resilience in facing environmental challenges. Collaborative networks formed between communities, government, and non-governmental organizations can be an effective means of expanding community access to resources and information.

However, the literature also shows that community participation often faces various obstacles, such as low environmental literacy, limited access to information, and power imbalances in decision-making processes. Participatory practices are symbolic or pseudo-participation (tokenism), where communities are formally involved but have no real influence on policy (Al Farisi et al., 2025). This condition shows that increasing local participation and capacity requires inclusive institutional design, sustainable empowerment mechanisms, and strong political commitment from all stakeholders.

Improving Environmental Policy Implementation and Performance

Improving environmental policy implementation is one of the main impacts of implementing cross-actor collaboration in environmental governance. The success of policy implementation is greatly influenced by the clarity of policy objectives, institutional capacity, and the support of actors involved in its implementation (Erinaldi et al., 2025). In the context of multi-stakeholder collaboration, the involvement of various stakeholders allows for a more proportional division of roles and improved cross-sectoral coordination, allowing environmental policies to be implemented more effectively and consistently at the local level.

A collaborative approach also contributes to increased compliance with environmental regulations. Agung (2025) explains that collaboration-based governance encourages the formation of joint oversight mechanisms and collective norms that strengthen actors' compliance with agreed-upon rules. When communities, the private sector, and the government are actively involved in the oversight process, transparency and accountability increase, thereby minimizing the potential for violations of environmental regulations. This mechanism also strengthens policy legitimacy because the actors involved feel shared responsibility for the results achieved.

In addition to increasing compliance, cross-actor collaboration also has a substantial impact on improving environmental performance. Public participation and stakeholder collaboration in environmental policies contribute positively to the quality of environmental outcomes, such as improved waste management, ecosystem protection, and pollution reduction (Tanjung & TP, 2025). Collaboration enables the integration of diverse resources and expertise, resulting in more comprehensive and sustainable solutions than sectoral approaches.

In the context of urban environmental management, cross-actor collaboration also plays a role in increasing the efficiency of program implementation and resource utilization. Hendra et al. (2024) emphasized that collaborative governance can create synergy between actors that generates added value (public value creation), including increased budget efficiency, optimization of environmental infrastructure, and accelerated implementation of strategic programs. This synergy is crucial for local governments with limited resources, as collaboration enables more optimal resource utilization through multi-stakeholder partnerships.

Despite its positive impact, implementing collaboration-based policies also faces challenges in maintaining consistent and sustainable environmental performance. The complexity of actors and interests within collaboration often creates coordination challenges, particularly when policy changes or leadership changes occur (Wahyuni & Sari, 2025). Furthermore, limited technical and institutional capacity at the local level can also hinder the achievement of environmental performance targets. This condition shows that improving policy implementation requires strong institutional support, a sustainable evaluation mechanism, and long-term commitment from all stakeholders.

Sustainable Institutional and Governance Challenges

Institutional challenges are a key factor influencing the effectiveness of cross-actor collaboration in environmental governance. Institutions encompass formal and informal rules that shape patterns of interaction between actors. In environmental governance practices, regulatory weaknesses, overlapping authority, and a lack of clarity in roles between institutions often hinder effective

collaboration. This situation leads to suboptimal cross-sectoral coordination and results in low consistency in environmental policy implementation at the local level.

In addition to structural issues, governance challenges also arise in the form of institutional fragmentation and low institutional capacity. Wijaya (2025) emphasized that bureaucratic fragmentation can hinder cross-sectoral policy integration because each institution tends to operate based on its own interests and mandates. In the context of environmental governance, this fragmentation often results in program duplication, conflicts of authority, and inefficient use of resources. Limited human resource capacity and funding at the regional level further exacerbate these conditions, making collaborative efforts difficult to sustain.

Imbalances in power relations between actors also pose a significant challenge to cross-actor collaboration. Actors with greater access to economic and political resources tend to dominate the decision-making process (Novitasari & Alif, 2025). This dominance can reduce the participation of weaker actors, such as local communities and marginalized groups, preventing the goal of inclusiveness in environmental governance from being optimally achieved. This inequality also has the potential to trigger conflicts of interest that hinder the collaboration process.

The sustainability of environmental governance is also influenced by policy stability and long-term commitment from stakeholders. Nurhayati (2025) emphasized that sustainable collaboration requires strong institutional commitment and formal mechanisms capable of maintaining continuity of cooperation. However, changes in political leadership, turnover of officials, and policy dynamics often lead to the discontinuation of previously established collaborative initiatives. This situation demonstrates that the sustainability of collaboration depends not only on individual actors but also on the strength of the institutional system that supports it.

Furthermore, challenges to sustainable governance also relate to limited evaluation and accountability mechanisms. Modern governance demands evaluation systems capable of measuring policy performance in a transparent and participatory manner (Bovaird & Löffler, 2003; Lockwood, 2010). In environmental governance, weak monitoring and evaluation systems often make it difficult to measure the actual impact of cross-actor collaboration on environmental quality. Without clear accountability mechanisms, collaborative processes risk losing public legitimacy and stakeholder support in the long term.

Discussion

Cross-actor collaboration has been proven to strengthen coordination among stakeholders in environmental governance by establishing more open and structured communication spaces. Intensive interactions between local governments, civil society organizations, local communities, the private sector, and academic institutions enable alignment of objectives and integration of cross-sector programs. Coordination established through collaborative mechanisms helps reduce overlapping policies and increase the efficiency of environmental program planning. Furthermore, this process also fosters clarity of roles and responsibilities among actors, allowing each party to contribute optimally according to their capacity and authority.

Increased community participation and local capacity are important indicators of the success of collaborative-based environmental governance. Community involvement in decision-making processes strengthens a sense of ownership of environmental programs and enhances the sustainability of policy implementation at the local level. Collaborative processes also create space for knowledge transfer and shared learning, contributing to improved technical skills and strengthened community institutions. With strengthened capacity, local communities serve not only as policy beneficiaries but also as active actors capable of initiating and managing environmental programs independently.

Findings regarding improvements in policy implementation and environmental performance indicate that cross-actor collaboration can enhance the effectiveness of environmental program implementation. Clear division of roles, joint monitoring mechanisms, and cross-sector coordination encourage policies to not only stop at the planning stage but also be consistently implemented in the field. A collaborative approach also allows for the optimization of available resources, including

funding, expertise, and infrastructure, allowing environmental programs to be implemented more efficiently and have a tangible impact on improving environmental quality.

Despite its positive impact, institutional challenges remain a major obstacle to realizing sustainable environmental governance. Institutional fragmentation, limited organizational capacity, and weak inter-agency coordination often hinder the effectiveness of multi-stakeholder collaboration. Furthermore, differing interests and imbalances in power relations between actors have the potential to create conflict that disrupts the collaborative process. This situation demonstrates that the success of collaboration is determined not only by the intensity of interactions between actors, but also by the strength of the institutional system that supports it.

The sustainability of collaborative-based environmental governance is also significantly influenced by policy stability and the long-term commitment of stakeholders. Changes in leadership and local political dynamics often impact the sustainability of established collaborative programs. Furthermore, limited monitoring and evaluation mechanisms make it difficult to measure the long-term impact of multi-stakeholder collaboration on environmental quality. Therefore, strengthening the coordination system, increasing institutional capacity, and developing sustainable evaluation mechanisms are important aspects in maintaining the effectiveness and sustainability of environmental governance at the local level.

CONCLUSION

Cross-actor collaboration in environmental governance provides an effective pathway for strengthening sustainable local environmental management by improving coordination, reducing institutional fragmentation, and enhancing policy implementation. Inclusive participation increases community ownership, social learning, and local capacity, supporting more consistent environmental performance. However, the long-term sustainability of collaborative governance is constrained by institutional limitations, unequal power relations, limited organizational capacity, and policy instability. Therefore, strengthening governance structures, coordination platforms, administrative capacity, transparent monitoring systems, and sustained leadership commitment is essential to ensure resilient, inclusive, and sustainable environmental governance at the local level.

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