Collaborative Governance and Community-Based Fisheries Management: Policy Strategies for Achieving SDGs in Coastal Merauke

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Abstract

This study explores collaborative policy strategies in community-based fisheries management (CBFM) in Merauke, Indonesia, aiming to support sustainable, inclusive, and adaptive marine resource governance aligned with local contexts and the Sustainable Development Goals (SDGs). Employing a qualitative case study design, the research draws on in-depth interviews, focus group discussions, policy document analysis, and participatory observation across selected coastal villages. Guided by the Collaborative Governance Framework of Ansell and Gash, the study analyzes key dynamics including stakeholder participation, institutional coordination, trust-building, and policy outcomes. Findings reveal that top-down marine policies have marginalized indigenous fishing communities and customary institutions, creating governance gaps and resource-based conflicts. Nonetheless, the study identifies strong informal regulatory systems rooted in local wisdom—such as sasi laut (marine closure), customary deliberations, and sustainable harvesting practices—that contribute to ecological preservation and social equity. Emerging collaborative initiatives involving local governments, NGOs, and community leaders demonstrate the potential for inclusive governance models, though significant challenges remain, including institutional fragmentation, limited policy literacy, and the lack of legal recognition for customary marine tenure. The study argues that strengthening collaborative governance requires adaptive policies, capacity-building programs, and formal integration of indigenous knowledge systems into regional planning. By highlighting Merauke's unique socio-ecological setting as a coastal and border region, this research contributes to the discourse on inclusive coastal governance and offers policy-relevant insights for advancing SDG 14 (Life Below Water), SDG 1 (No Poverty), and SDG 17 (Partnerships for the Goals). It concludes that locally rooted collaboration is key to achieving sustainable and equitable coastal development in Indonesia and beyond.

Keywords: Collaborative Governance; Fisheries Management; Sustainable Development; Indigenous Knowledge; Inclusive Policy

Introduction

Coastal and marine ecosystems around the world are increasingly under serious pressure from overfishing, habitat degradation, and the impacts of climate change(Lincoln et al., 2021). These challenges

not only threaten marine biodiversity but also undermine the sustainability of the livelihoods of millions of small-scale fishing communities that depend on coastal resources(Andrews et al., 2021). In response to these conditions, sustainable fisheries management has become an important policy agenda at both the national and global levels. However, the implementation of these policies is often hampered by fragmented governance systems, limited community involvement, and weak integration between policy institutions. The urgency of addressing these issues is in line with the achievement of the Sustainable Development Goals (SDGs), especially SDG 14 (Marine Ecosystems), which promotes the conservation and sustainable use of marine resources; SDG 1 (No Poverty), which targets improving the well-being of coastal communities and SDG 17 (Partnerships for the Goals), which emphasizes the importance of collaboration across sectors and institutions. Achieving these three goals requires an approach that is not merely technocratic, but also emphasizes participatory, inclusive, and adaptive governance transformation to the local context(Olsson, 2022). Within this framework, collaborative governance and community-based fisheries management (CBFM) are increasingly recognized globally as approaches that can address the complexity of socio-ecological problems in coastal areas. This model emphasizes the joint production of knowledge, sharing of responsibilities, and collective decision-making, something that is very relevant for coastal areas where local knowledge, cultural identity, and community resilience are closely linked to marine ecosystems. Therefore, the integration of a collaborative approach in fisheries policy design is no longer just an option, but a strategic necessity to ensure long-term sustainability from both an environmental and socio-economic perspective(Elegbede et al., 2023).

Collaborative Governance and Community-Based Fisheries Management (CBFM) approaches have become important theoretical frameworks in the study of natural resource management, especially in the context of socially and ecologically complex coastal areas(Steenbergen et al., 2022). Collaborative Governance emphasizes the importance of multi-actor involvement including government, local communities, non-governmental organizations, and the private sector in transparent and consensus-based decision-making processes. Meanwhile, CBFM focuses on empowering fishing communities to actively participate in fisheries resource management through local value systems, traditional knowledge, and sustainable participatory mechanisms. These two approaches complement each other in creating a more adaptive, inclusive, and contextually based governance system. Although international literature has shown that the implementation of collaborative governance and CBFM can improve the effectiveness of fisheries management policies, there are significant limitations in studies that address the context of border areas and indigenous communities in Indonesia. In particular, areas in Eastern Indonesia such as Merauke have not received much attention in empirical studies on how collaborative policies can be adapted to unique local socio-political realities(Ni'am, 2023). This creates a research gap, especially in understanding power dynamics, local institutional capacity, and the role of traditional wisdom in marine resource management systems. Furthermore, conventional top-down management approaches have proven to be less effective in addressing the socio-ecological complexities that occur in coastal areas. This model often ignores aspects of community participation, cultural legitimacy, and social sustainability, resulting in resistance from local communities and inequality in the distribution of resource benefits. Therefore, it is important to develop a more responsive, participatory, and collaboration-based policy approach to address the multidimensional challenges of fisheries management in marginal areas such as Merauke.

The coastal area of Merauke, located at the eastern tip of Indonesia and directly bordering Papua New Guinea, has unique geographical and socio-economic characteristics. The fishing communities in this area are mostly indigenous people who depend on marine resources and local wisdom-based management systems for their livelihoods(Keiluhoods et al., 2023). However, in policy practice, they are often not actively involved in the process of formulating or implementing marine and fisheries policies. This causes various problems, such as conflicts over the use of marine space between local communities and external parties, unequal access to resources, and weak recognition of indigenous peoples' customary marine rights. Amid these challenges, Merauke actually has great potential as a model for inclusive collaborative governance in border areas, considering the existence of a strong indigenous social structure, abundant coastal natural resources, and its strategic position on the national geopolitical map. A collaborative approach between the

state, indigenous peoples, and non-state actors can be an effective strategy to create equitable, sustainable, and contextual fisheries governance. The main objective of this study is to explore and analyze collaborative policy strategies in community-based fisheries management in Merauke to support sustainable, inclusive, and adaptive marine resource governance to the local context.

Method

The research design used in this study is a qualitative case study that aims to explore in depth the practices of collaborative governance and community-based fisheries management in the coastal areas of Merauke Regency. This approach was chosen because it allows researchers to holistically and contextually understand the social, political, and institutional dynamics that influence the implementation of marine resource management policies at the local level. This study emphasizes the analysis of public policy, local practices of fishing communities, and interactions between key actors including local governments, non-governmental organizations, traditional leaders, and fishing communities. Through this approach, it is expected to produce in-depth and relevant findings to formulate inclusive and sustainable policy strategies in supporting the achievement of the Sustainable Development Goals (SDGs) in coastal border areas.

The research location focuses on several coastal villages and traditional fishing areas in Merauke Regency, South Papua, which were selected purposively based on their relevance to the study objectives. Merauke is a strategic area rich in marine resources and plays an important role in national food security and the development of eastern Indonesia. The uniqueness of this area lies in the existence of indigenous communities who still maintain a resource management system based on local wisdom, as well as traditional institutional structures that are active in community decision-making. In addition, as a border region, Merauke faces complex policy challenges, including overlapping national regulations and local community customary rights, as well as external pressures from large-scale investment and development projects. This context makes Merauke a very representative and relevant location to study collaborative governance models in community-based fisheries management that support the achievement of the Sustainable Development Goals (SDGs), especially in terms of social, economic, and environmental sustainability.

Data collection in this study was conducted through several complementary techniques to gain a comprehensive understanding of collaborative governance practices and community-based fisheries management in the coastal areas of Merauke. The first technique was in-depth interviews with key informants consisting of traditional leaders, heads of fishing villages, officials from the marine and fisheries office, representatives of local NGOs, and academics who understand the dynamics of marine policies and coastal community empowerment. Second, focus group discussions (FGDs) were conducted involving traditional fishermen and fisherwomen as the main actors in marine resource management practices. This technique aims to explore the perceptions, experiences, and aspirations of the community regarding ongoing collaborative policies and practices. Third, a policy document study was conducted through analysis of various planning and regulatory documents, such as the Merauke Regency RPJMD, regional regulations related to marine affairs and fisheries, the Regent's Decree, policies of the Ministry of Marine Affairs and Fisheries (KKP), and partnership agreements with other institutions. Finally, participatory observation was used to directly observe community management practices, village deliberation processes, and environmental conservation activities carried out by the community. The combination of these four techniques aims to strengthen the validity of the data and provide an in-depth contextual picture of the collaborative governance process taking place in the field.

Data analysis in this study was conducted using a thematic analysis approach to identify patterns of meaning that emerged from qualitative data. This process began with systematic data coding based on key themes relevant to the focus of the study, such as community participation, transparency of the policy process, conflicts of interest between actors, the role of customary institutions, and the integration of SDGs values in local practices. The coded data was then analyzed in depth to reveal the relationships between

themes and the dynamics that occur in the context of collaborative governance in the coastal area of Merauke. To strengthen the interpretive framework, this analysis is based on the Collaborative Governance Framework developed by Ansell and Gash, which emphasizes three main components: (1) initial conditions that influence readiness for collaboration, (2) dynamics of the collaboration process such as dialogue, trust, and power sharing, and (3) policy outcomes that reflect the effectiveness of cross-actor cooperation. By using this framework, the study is expected to systematically reveal how collaborative governance models are formed, developed, and contribute to the sustainability of fisheries management and the achievement of SDGs at the local level.

To ensure the validity and legitimacy of the data in this study, a triangulation strategy of sources and methods was used as the main approach. Triangulation was carried out by comparing and confirming the findings obtained through in-depth interviews, participant observation, and policy document studies, in order to see the consistency of information between various data sources. This step is important to reduce subjective bias and strengthen the reliability of data interpretation. In addition, a member check process was also carried out, namely verification of the results of the initial analysis with several key informants, especially traditional leaders and representatives of the fishing community, to ensure that the researcher's interpretation was in accordance with their reality and experience. Thus, this validation process not only increases the credibility of the research findings, but also strengthens academic accountability to the social and cultural context of the Merauke coastal community.

Results and Discussion

Before presenting the findings, it is essential to contextualize the dynamics observed in the coastal communities of Merauke. As a region with rich marine biodiversity and a strong presence of indigenous fishing communities, Merauke represents a critical site for examining how collaborative governance and community-based fisheries management intersect with policy strategies aimed at achieving the Sustainable Development Goals (SDGs). The following section outlines the key results of the field research, derived from in-depth interviews, focus group discussions, policy document analysis, and participatory observation. These findings illuminate both the progress and persistent challenges in promoting inclusive, sustainable, and locally grounded fisheries governance in Merauke's coastal areas.

Table 1. Main Thematic Findings of Research in Merauke

Main Theme	Sub-Theme/Category	Description of Findings	Field Quotes
Initial Conditions of Governance	Lack of community participation	The policy formulation process is top-down, without involving fishing and indigenous communities.	"We were never consulted when our sea area was designated as an investment zone." (Fisherman, Kuler)
	Inequality of access to resources	Traditional fishermen lose access due to overlapping conservation zones and large business permits.	"We are prohibited from fishing in our own territory because it is said to be a company zone." (Customary Leader, Wambi)
Local Practices of Community Management	Customary systems and local wisdom	The sea sasi system, seasonal prohibitions, and customary territorial boundaries are still active in some communities.	"In certain months we don't go to sea, that's a customary rule to protect the fish." (Village Head, Onggari)
	The role of women in marine product management	Fisherwomen are involved in informal processing and distribution of marine products.	"We sell fish and make sea floss at home." (Fisherman Women, Tomerau)

Collaborative Initiatives	Partnership between NGOs and local governments	There is training on conservation, seaweed cultivation, and environmentally friendly fishing gear from NGOs and the government.	"We participated in training to make traps from environmentally friendly nets." (Training participant, Kuler Village)
	Village deliberation forum	FGDs and village deliberations began to be used to voice the aspirations of coastal communities in the RPJMDes.	"Now we can propose to the village head through deliberation." (BPD member, Onggari Village)
Collaborative Governance Challenges	Low capacity of community policy	Many people do not yet understand the content and language of the applicable fisheries policies.	"We don't know what the fishing zone rules mean." (Young fisherman, Merauke)
	Fragmentation between actors	Lack of coordination and overlapping programs between agencies, NGOs, and traditional institutions.	"Training programs from the district and from NGOs are often not connected." (Fisheries Service Employee)
Impact on SDGs	SDG 14 – Marine conservation	Ecological awareness is increasing, communities are starting to get involved in conservation efforts and reporting illegal fishing.	"Now we know which fishing gear is prohibited and can report if there are foreign vessels." (Sea Volunteer, Wapeko)
	SDG 1 – Economic development	Business diversification such as seaweed cultivation and processed seafood products are starting to develop in several villages.	"We started trying to process fish into sea crackers, it can increase our income." (Housewife, Tomer Village)
	SDG 17 – Cross-actor partnerships	Cooperation between villages, NGOs and local governments is starting to grow, although it is not yet fully structured and consistent.	"We now have a small MoU with an NGO on conservation training." (Village Secretary, Tomerau)

The thematic table above illustrates the dynamics of the transition of fisheries governance on the coast of Merauke towards a more inclusive collaborative approach. The findings show that fishing communities still face challenges in the form of minimal participation in policies and unequal access to marine resources. However, local wisdom such as the sasi system and the role of women in managing marine products persist and become an important foundation in community-based management. Collaborative initiatives have begun to grow through partnerships with NGOs and village deliberation forums, although they are still faced with limited policy capacity and fragmentation between actors. In general, these changes have begun to contribute to the gradual achievement of SDGs 1, 14, and 17.

Table 2. Local Practices of Community-Based Fisheries Management on the Coast of Merauke

Aspect	Field Findings	Direct Informant Quotes
Local Wisdom: Customary Prohibitions (Sasi)	Several villages on the coast of Merauke still implement the sasi system, which is a ban on fishing during certain periods to maintain sustainability.	*"If it's a certain month, we don't go to sea. That's a customary rule from our ancestors so that the fish don't run out."*(Customary Leader, Yakiu Village)

Traditional Fishing Season Calendar	Fishermen use natural signs and traditional calendars to determine when to go to sea, which is in line with the fish reproductive cycle.	*"We usually look at the direction of the wind and the stars in the sky, that's our guide to when we can go to sea and when we should stop."*(Senior fisherman, Tomerau Village)
The Role of Women in Marine Product Distribution	Women play an important role in the processing of smoked fish and selling in local markets, supporting the economy of fishing families.	*"Women take care of the catch, selling it at the market. Sometimes the sales result is bigger than the husband's catch."*(Female Fisherman, Onggaya Village)
The Role of Customary Institutions in Conflict Resolution	Customary institutions resolve disputes between villages regarding marine fishing zones without involving formal authorities.	*"If someone exceeds the arrest limit, we sit down with the village elders, not directly to the police."*(Traditional Figure, Wambi Village)

Table 2 illustrates the forms of community-based fisheries management practices that are still actively carried out by fishing communities in the coastal areas of Merauke. These findings include the implementation of the customary prohibition system (sasi), the use of traditional fishing season calendars, and the strategic role of customary institutions and women in processing, distributing marine products, and resolving resource conflicts. These practices reflect the socio-ecological sustainability that is internalized in the local social system and contributes to the achievement of the Sustainable Development Goals (SDGs), especially SDG 14 (Life Below Water) and SDG 5 (Gender Equality), through a participatory governance approach based on cultural values.
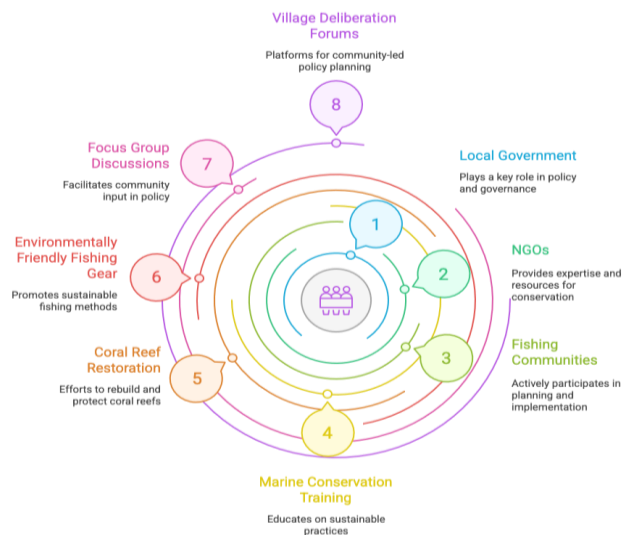

Figure 1. Collaborative Efforts in Coastal Merauke

Emerging collaborative initiatives in coastal Merauke demonstrate increasing synergy between local government, NGOs, and fishing communities. Joint programs have been implemented, including marine conservation training, coral reef restoration, and the promotion of environmentally friendly fishing gear. Additionally, Focus Group Discussions (FGDs) and village deliberation forums have become participatory mechanisms through which local communities are actively involved in planning village policies aligned with marine potential and the Sustainable Development Goals (SDGs).
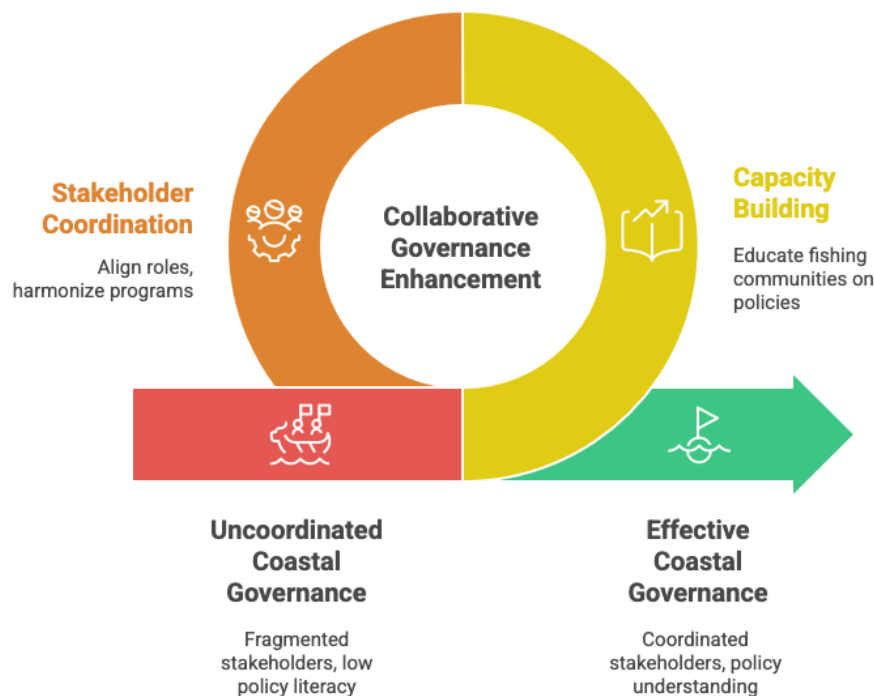
Figure 2. Enhancing Collaborative Governance in Merauke

The implementation of collaborative governance in coastal Merauke faces significant challenges, particularly in terms of capacity and policy literacy among fishing communities, who often lack understanding of policy terminology and development planning processes. Additionally, fragmentation among key stakeholders such as technical agencies, traditional institutions, and the private sector has led to overlapping roles and uncoordinated programs, hindering the effectiveness and coherence of collaborative efforts.

Table 3. Key Challenges in the Implementation of Collaborative Governance in Coastal Merauke

Thematic Aspect	Empirical Findings	Representative Quote from Field Data
Limited Capacity and Policy Literacy	Local fishing communities demonstrate limited understanding of policy-related terminology, planning mechanisms, and regulatory frameworks, which restrict meaningful participation.	*"During village meetings, we often struggle to follow discussions on budget and programs because the language is too complex."*(Fisherman, Tomer Village)
Stakeholder Fragmentation	Weak coordination between technical agencies, customary institutions, and private actors has resulted in overlapping roles, fragmented programs, and policy inefficiencies.	*"Sometimes the government and NGO programs conflict, and we don't know which one to follow."*(Village Official, Yanggandur Village)

The findings of this study consistently show that the conventional centralistic and technocratic governance approach in the coastal areas of Merauke has resulted in forms of structural exclusion of local fishing communities, especially indigenous peoples. Policy schemes such as the establishment of conservation zones and the development of large-scale fishing industries are implemented without inclusive consultation mechanisms and without recognition of marine customary rights and customary-based regulatory systems(Tilot et al., 2021). As a result, there are conflicts over management space, decreased policy legitimacy, and social resistance that hinder the effectiveness of marine development programs. Theoretically, this condition reflects what is referred to in the literature as "governance failure" the failure of state institutions to build a management system that is adaptive to the local social and ecological context

(Sacchetti & Borzaga, 2021). Governance failure generally occurs in the management of natural resources in peripheral regions, especially when the state fails to recognize local actors as the main subjects of governance(Johansson, 2023). Merauke as a border area with complex social and customary plurality is a typical case study of institutional fragmentation and policy decontextualization.

In the field, interviews with traditional leaders and fishermen groups showed that policy-making did not involve village deliberation procedures or traditional institutions. One representative quote stat "Our fishing grounds were suddenly included in the conservation zone without us knowing. There was no notification, no meeting. Even though we have been protecting this sea since our ancestors." This quote confirms the absence of a deliberative mechanism and shows how information and power asymmetries occur in marine policy practices. This condition not only contradicts the principle of inclusive governance within the SDGs framework, but also hinders the achievement of SDG 14 (Life Below Water) and SDG 16 (Peace, Justice, and Strong Institutions). Development policies that fail to recognize the collective rights of indigenous peoples to natural resources directly weaken social cohesion and trust in the state, and create an imbalance in the distribution of economic benefits(Tamasiga et al., 2024).

The absence of local communities in policy design and implementation limits the effectiveness of state-based management instruments, as they do not take into account local ecological knowledge and customary practices that have long contributed to sustainable marine conservation. Studies by (Wu et al., 2021) support this argument, stating that external interventions that ignore local value systems and social structures actually create long-term distortions and conflicts in resource management. Conventional governance approaches in Merauke need to be fundamentally evaluated. Strengthening collaborative governance based on recognition of customary rights, mainstreaming local deliberation in decision-making, and integrating community institutions into regional planning systems are normative and strategic prerequisites for building fisheries governance that is fair, inclusive, and in line with the principles of sustainable development(Clark, 2021).

Amidst weak formal governance, coastal fishing communities in Merauke maintain a regulatory system based on local values that have been tested socially and ecologically. The system includes sea sasi, customary deliberation, and sustainable fishing practices that have been passed down across generations. The three substantively form an informal institutional framework that performs similar functions to modern governance instruments for regulating access, controlling exploitation, social supervision, and imposing sanctions(Abbott & Snidal, 2021). Sea sasi as a form of customary prohibition on catching marine biota at certain times and places acts as a community-based conservation mechanism. This system is implemented based on village deliberation and is marked by cultural symbols that are collectively adhered to. This practice has high social binding power and has proven effective in maintaining the fish reproductive cycle and preventing overexploitation(Mitra et al., 2023). In field observations, sasi often not only regulates prohibitions, but also becomes a tool for fair distribution of benefits for community members, thereby strengthening ecological and social justice simultaneously.

Customary deliberations are the main deliberative forums in determining internal community policies including the determination of fishing areas, resolution of fishing zone conflicts, and selection of sasi times. This forum involves customary leaders, fisherwomen, and senior fishermen, reflecting inclusiveness in decision-making, while strengthening trust and social cohesion at the local level. This mechanism shows similarities in principle with deliberative governance, where policy legitimacy is obtained through equal and open participation(Nederhand & Edelenbos, 2023). Fishing practices based on local wisdom, such as choosing the fishing season, using environmentally friendly fishing gear, and prohibiting the exploitation of certain species, reflect local ecological knowledge (LEK) which is dynamic and adaptive to changes in nature. This practice has been shown to contribute to the sustainability of marine ecosystems and local food security, while strengthening the economic resilience of communities(March & Failler, 2022).

Conceptually, these local values have great potential to become part of the co-management framework, namely collaborative governance between the state and local communities as defined by (Hakkarainen et al., 2022) as a form of sharing power, responsibility, and joint decision-making in natural resource management. This finding is in line with (Quimby & Levine, 2021) that the success of fisheries governance is greatly influenced by the system's ability to integrate local institutions and traditional knowledge systems into formal policy structures. Unfortunately, until now, this local regulatory system has not received adequate legal recognition in the regional policy structure, either through Regional Regulations (Perda) or in planning documents such as RZWP3K. The absence of formal regulations that recognize the authority of customary institutions creates dualism in governance and causes policy conflicts in the field.

It is important for local governments to encourage institutional transformation through formal recognition of local values as part of the local policy framework. This step can be done through the ratification of Regional Regulations that legitimize sasi practices and customary institutions as legitimate components in coastal area management. This strategy not only strengthens the social legitimacy of policies, but also increases the effectiveness of implementation and the resilience of policies to environmental and social changes. By integrating local regulatory systems into formal governance, the government can build more inclusive, adaptive, and sustainable coastal resource governance, in line with Indonesia's commitment to SDG 14 (Life Below Water), SDG 16 (Peace, Justice and Strong Institutions), and SDG 17 (Partnerships for the Goals). This approach emphasizes that local wisdom is not just a cultural heritage, but a strategic asset in creating contextual and transformative public policies(Del Soldato & Massari, 2024).

The collaborative model between local government, local NGOs, and fishing communities in Merauke shows a positive direction towards the formation of a more inclusive and participatory governance structure. Initiatives such as community-based marine conservation training, coastal economic diversification programs, and village deliberation forums for the preparation of fishing area zones reflect a shift in approach from a top-down approach to a model that is more responsive to local realities. When analyzed using the Collaborative Governance framework developed by (Blanco et al., 2022) this dynamic shows the emergence of stakeholder involvement in the planning process, the formation of trust between institutions through ongoing interactions, and increasingly institutionalized deliberative efforts, although still in an informal form. The relationship that is beginning to be built between state and non-state actors creates the initial prerequisites for the formation of collaborative governance rooted in local values.

Compared to other coastal areas, the collaborative approach in Merauke is still in its embryonic stage and highly dependent on external program support. In Southeast Sulawesi, for example, the co-management process in the management of customary fishing areas has received legal recognition through regional regulations that allow the transfer of authority to local institutions. Meanwhile, in the Philippines and Pacific countries such as Fiji and Vanuatu, multi-actor collaboration has been integrated into the national legal framework, allowing indigenous peoples to be involved in marine conservation planning that is legally recognized by the state. The successes in these areas show that collaborative governance cannot be built only through short-term projects, but requires institutional strengthening, legal recognition of the collective rights of local communities, and consistent coordination across levels of government. With strong social and ecological potential, Merauke has the opportunity to develop a similar model, provided it is supported by policies that place collaboration as the main foundation of coastal resource governance.

Although the direction of collaboration between actors in fisheries management in Merauke shows progress, the implementation process of collaborative governance still faces serious obstacles both structurally and culturally. At the institutional level, the institutional capacity of local governments and community institutions is still limited, especially in terms of human resources, funding, and coordination mechanisms(Salvador & Sancho, 2021). Many community-based fisheries programs are not sustainable due to minimal cross-sector integration and weak administrative support from technical units. Coordination between marine services, customary institutions, and NGOs often runs sporadically without a clear common framework, so that policies run in sectoral silos and overlap. On the other hand, limited policy literacy

among fishing communities, especially related to rights to fishing areas, zoning regulations, and public decision-making procedures, also weakens their bargaining position in collaborative forums. Communities still tend to view policy as a technical domain belonging to the government, rather than as an open process that can be negotiated in a participatory manner(Helbing et al., 2023).

In this context, a transformative approach to capacity building is needed that is not only technical training, but also includes community-based policy education. This effort must be directed at building critical community understanding of policy structures, their legal rights, and advocacy mechanisms in the local government system. Capacity building programs should involve contextual participatory methods using local languages, cultural approaches, and case studies based on the fishermen's own experiences(Galappaththi et al., 2021). In addition, local governments need to adopt institutional strategies that enable the mainstreaming of customary institutions into the development planning system, so that the collaboration that is formed is not just a response to donor programs, but becomes part of a sustainable governance structure. Such transformation is crucial in building inclusive, resilient fisheries governance that is in line with the commitment to sustainable development as carried out in the SDGs framework.

Local initiatives that have developed in the coastal areas of Merauke such as the practice of sea sasi, village deliberations, the use of environmentally friendly fishing gear, and the active involvement of NGOs and traditional leaders have shown real contributions to achieving the Sustainable Development Goals (SDGs), especially SDG 14 (Marine Ecosystems), SDG 1 (Eradicating Poverty), and SDG 17 (Global Partnership). In the ecological aspect, local practices have contributed to maintaining the quality of coastal ecosystems through management based on fishing seasons, restrictions on destructive gear, and restoration of shallow water habitats(Carneiro & Martins, 2021). These initiatives play an important role in supporting SDG 14, especially indicator 14.2 on sustainable marine ecosystem management based on local knowledge. In the economic dimension, strengthening the economy of fishermen's households through business diversification such as seafood processing and seaweed utilization also contributes to poverty reduction at the local level, supporting SDG indicators 1.1 and 1.5 on the resilience of poor communities to economic and ecological risks. Meanwhile, in the institutional realm, the emergence of cross-actor collaborative forums between local governments, indigenous communities, and civil society organizations has formed the embryo of a partnership that strengthens the foundation for achieving SDG 17, especially in indicator 17.17 on promoting multi-party partnerships in sustainable development.

However, local contributions to the SDGs will not be optimal without adequate and sustainable policy support. Therefore, an adaptive decentralization approach is needed, which allows local governments to be more flexible in accommodating local socio-cultural and ecological diversity within the framework of resource planning and management. Overly uniform and centralized governance models tend not to be adaptive to local contexts and often result in exclusion of indigenous communities. For this reason, strengthening local regulations based on collaboration is crucial, for example through the ratification of Regional Regulations (Perda) that recognize customary management systems as a legitimate part of the regional fisheries governance system. In addition, the government also needs to formulate policy incentives that favor traditional fishing communities that actively maintain marine sustainability, such as infrastructure support, subsidies for environmentally friendly fishing gear, and preferential access to local and regional markets. This incentive-based policy not only improves welfare, but also strengthens long-term social and ecological sustainability(Yue et al., 2022). With this strategy, the contribution of local communities is not only a complement to national development, but becomes a major actor in achieving the SDGs contextually and equitably.

Theoretically, the findings of this study provide an important contribution to the expansion of the concept of collaborative governance by highlighting how collaborative governance models can be effectively applied in the context of indigenous communities and border areas that have historically been marginalized from the policy-making process. This approach emphasizes that collaboration does not only involve formal actors such as government and NGOs, but also requires recognition of local social structures, customary

norms, and traditional ecological knowledge as equal elements in the deliberative and decision-making process. Practically, the results of this study recommend the importance of integrating local institutions such as customary institutions, village deliberation forums, and community-based management practices into the regional development planning system oriented towards the SDGs. This can be done through responsive regulations, incentive schemes, and formal mechanisms for legal recognition of local authorities, so that socio-ecological sustainability is not only the responsibility of the state, but also the result of synergy between formal actors and local communities in an equal and sustainable manner.

Conclusion

This study highlights the critical role of collaborative governance and community-based fisheries management (CBFM) in strengthening sustainable coastal development and achieving the Sustainable Development Goals (SDGs) in Merauke, Indonesia. The research reveals that existing top-down policy frameworks have largely excluded local fishing communities and indigenous institutions, resulting in resource conflicts, weak legitimacy, and limited ownership over marine conservation efforts. Empirical findings demonstrate that local communities in Merauke possess valuable indigenous knowledge systems such as traditional marine closure practices and participatory decision-making forums that align with sustainable management principles. When supported by inclusive, cross-sectoral collaboration involving government agencies, NGOs, and customary leaders, these community-based mechanisms show significant potential to enhance local resilience, promote marine ecosystem protection (SDG 14), and improve socio-economic well-being (SDG 1). However, the implementation of collaborative approaches still faces substantial challenges, including institutional fragmentation, low policy literacy, and limited regulatory support. Therefore, advancing collaborative governance requires adaptive policy instruments, investment in community capacity-building, and formal recognition of customary marine tenure systems. This study contributes to the broader discourse on inclusive coastal governance by offering a policy-relevant framework rooted in local realities. It suggests that recognizing and integrating community-based practices into formal governance structures is essential for the sustainable and equitable development of coastal regions, particularly in border and indigenous contexts such as Merauke.

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