

# Stakeholder Collaboration Model in Implementing the Policy of Banning Fishing Gear Cantrang in Lamongan Regency

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## Abstract

**Abstract:** *This paper examines the stakeholder collaboration model in the implementation of the policy banning the use of Cantrang fishing gear in Lamongan Regency, Indonesia. The study highlights the importance of multi-stakeholder engagement in addressing the challenges posed by Cantrang fishing gear, which has been linked to overfishing and environmental degradation. The issue of Cantrang fishing gear, also known as seine net fishing, has become a contentious topic in Indonesia, particularly in coastal areas like Lamongan Regency. For instance, studies have shown that Cantrang nets can indiscriminately capture not only target fish species but also juvenile fish and non-target species, leading to a decline in biodiversity. This indiscriminate catch poses a threat not only to the fish populations but also to the livelihoods of local fishermen who depend on sustainable fishing practices. Through qualitative analysis and case studies, the research identifies key stakeholders, their roles, and the collaborative mechanisms that can enhance policy effectiveness. The findings suggest that a structured collaboration framework can facilitate better communication, resource sharing, and conflict resolution among stakeholders, ultimately leading to sustainable fishing practices in the region.*

**Abstrak:** Penelitian ini mengkaji model kolaborasi pemangku kepentingan dalam implementasi kebijakan larangan penggunaan alat tangkap Cantrang di Kabupaten Lamongan, Indonesia. Studi ini menyoroti pentingnya keterlibatan multi-pemangku kepentingan dalam mengatasi tantangan yang ditimbulkan oleh alat tangkap Cantrang, yang telah dikaitkan dengan overfishing dan degradasi lingkungan. Masalah alat tangkap Cantrang, yang juga dikenal sebagai jaring seine, telah menjadi topik yang kontroversial di Indonesia, terutama di daerah pesisir seperti Kabupaten Lamongan. Studi menunjukkan bahwa jaring Cantrang dapat menangkap secara sembarangan tidak hanya spesies ikan target tetapi juga ikan muda dan spesies non-target, yang mengakibatkan penurunan keanekaragaman hayati. Penangkapan sembarangan ini tidak hanya mengancam populasi ikan tetapi juga mata pencaharian nelayan lokal yang bergantung pada praktik penangkapan ikan yang berkelanjutan. Melalui analisis kualitatif dan studi kasus, penelitian ini mengidentifikasi pemangku kepentingan utama, peran mereka, dan mekanisme kolaboratif yang dapat meningkatkan efektivitas kebijakan. Temuan menunjukkan bahwa kerangka kerja kolaborasi yang terstruktur dapat memfasilitasi komunikasi yang lebih baik, berbagi sumber daya, dan penyelesaian konflik di antara pemangku kepentingan, yang pada akhirnya mengarah pada praktik penangkapan ikan berkelanjutan di wilayah tersebut.

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## Introduction

The fishing industry plays a crucial role in the economy of Indonesia, particularly in coastal regions like Lamongan Regency. This region, with its rich marine biodiversity and traditional fishing communities, has been a vital source of livelihood for many families. Fishing not only provides sustenance but also contributes significantly to the local economy, supporting various ancillary industries such as fish processing, transportation, and trade. The fisheries sector contributes around 7% of Lamongan Regency gross domestic product (GDP) and more than 4000 fishermen depend directly on this sector for their livelihood (Syamsuddin et al., 2020). However, the use of Cantrang fishing gear has raised significant concerns regarding its environmental impact and sustainability. Cantrang, a type of trawl net, is designed to catch fish by dragging a large net along the seabed, which can lead to the indiscriminate capture of marine life. This method has been associated with overfishing and the destruction of marine habitats, posing a threat to the delicate balance of the ecosystem (Yasyfi et al., 2022).

The environmental ramifications of Cantrang fishing are profound and multifaceted. Firstly, the method is notorious for its bycatch, which refers to the unintended capture of non-target species, including juvenile fish and other marine organisms. This not only diminishes fish populations but also disrupts the food chain, impacting species that rely on these fish for survival. For example, the decline in shrimp populations due to Cantrang fishing has been linked to the subsequent decrease in populations of species that prey on shrimp, such as larger fish and seabirds. Furthermore, the physical act of dragging the net across the seabed can result in the destruction of vital habitats such as coral reefs and seagrass beds, which serve as breeding grounds for various marine species. The loss of these habitats can lead to long-term ecological consequences, including reduced biodiversity and the collapse of local fisheries. Recent studies have shown that the use of cantrang fishing gear can increase bycatch by up to 60%, especially of small fish and non-target species that should be protected (Widodo, 2022).

In response to these pressing issues, the Indonesian government has implemented a policy to ban this fishing gear, aiming to protect marine biodiversity and ensure the sustainability of fish stocks (Bianchi et al., 2021; Lau, 2021; Sholeh et al., 2023). The decision to ban Cantrang reflects a growing recognition of the need for sustainable fishing practices that balance economic interests with environmental stewardship. The government's initiative is not merely a regulatory measure; it represents a shift towards a more holistic approach to fisheries management. By prohibiting harmful fishing practices, the government aims to encourage the adoption of more sustainable methods, such as handline fishing or the use of fish traps, which have a significantly lower impact on marine ecosystems.

Moreover, the ban on Cantrang fishing gear is expected to foster community engagement and awareness regarding the importance of sustainable fishing practices. Local fishermen, who have relied on Cantrang for their livelihoods, are being encouraged to participate in training programmes that educate them about alternative fishing methods and the long-term benefits of sustainable practices. For instance, community-led initiatives that promote the use of environmentally friendly fishing gear not only help preserve marine biodiversity but

also enhance the resilience of local fishing communities (Nelms et al., 2020). By fostering a sense of ownership and responsibility towards marine resources, these initiatives can lead to more sustainable fishing practices and improved fish stocks over time.

Transitioning to sustainable fishing practices also requires a concerted effort from various stakeholders, including government agencies, non-governmental organisations, and the fishing communities themselves. Collaborative efforts can facilitate the development of policies that are not only effective in reducing the environmental impact of fishing but also economically viable for local fishermen. For example, the establishment of marine protected areas (MPAs) can provide safe havens for fish populations to recover while allowing local communities to benefit from sustainable fishing practices. Additionally, the promotion of eco-labeling initiatives can help consumers make informed choices about the seafood they purchase, thereby creating a market demand for sustainably sourced fish.

In conclusion, the fishing industry is an integral component of Indonesia's economy, particularly in coastal regions like Lamongan Regency. However, the environmental consequences of Cantrang fishing gear have prompted the government to take decisive action to protect marine biodiversity and promote sustainable fishing practices (Sciberras et al., 2018). By banning harmful fishing methods and encouraging community engagement, the Indonesian government is paving the way for a more sustainable future for both the fishing industry and the marine ecosystems that support it. The transition to sustainable fishing practices is not merely a regulatory challenge but an opportunity for collaboration, innovation, and resilience among all stakeholders involved. As Indonesia navigates this critical juncture in its fishing industry, the collective efforts to safeguard marine resources will ultimately determine the health of its fisheries and the well-being of its coastal communities for generations to come (Sidik et al., 2023).

The success of this policy largely depends on collaboration among various stakeholders, including government agencies, local fishermen, non-governmental organisations (NGOs), and the fishing industry. Effective stakeholder collaboration can facilitate the sharing of knowledge, resources, and best practices, which are essential for the successful implementation of the ban on Cantrang fishing gear (Sumarni et al., 2025). This paper aims to explore the stakeholder collaboration model in Lamongan Regency, focusing on the roles and interactions of different stakeholders in the policy implementation process.

Understanding the dynamics of stakeholder collaboration is vital for addressing the complexities of fisheries management (Ozdemir et al., 2023); (Rahu & Suprayitno, 2021). The involvement of local communities, particularly fishermen who are directly affected by the policy, is crucial for ensuring compliance and promoting alternative fishing practices (Padang et al., 2024). This study will provide insights into how collaborative approaches can enhance the effectiveness of the ban on Cantrang fishing gear and contribute to the overall sustainability of marine resources in Lamongan Regency.

## Research Method

This study employs a qualitative research approach to explore the stakeholder collaboration model in the implementation of the Cantrang fishing gear ban in Lamongan Regency. The

research design includes in-depth interviews, focus group discussions, and case studies to gather comprehensive data on the perspectives and experiences of various stakeholders involved in the policy implementation process. The primary data collection involved interviewing key stakeholders, including government officials, local fishermen, representatives from NGOs, and members of the fishing industry. A semi-structured interview format was used to allow for flexibility in responses while ensuring that key topics related to stakeholder collaboration were addressed. The interviews were conducted between June and August 2023, and a total of 30 stakeholders were interviewed.

Focus group discussions were also organised to facilitate dialogue among stakeholders and to identify common challenges and potential solutions related to the implementation of the Cantrang fishing gear ban. These discussions provided valuable insights into the dynamics of stakeholder interactions and the collaborative mechanisms that can enhance policy effectiveness. Data analysis was conducted using thematic analysis, which involved coding the interview transcripts and focus group discussions to identify key themes and patterns related to stakeholder collaboration. The findings were then triangulated with existing literature to ensure the validity and reliability of the results. This methodological approach allows for a comprehensive understanding of the stakeholder collaboration model in Lamongan Regency, providing insights into the roles, interactions, and challenges faced by different stakeholders in the implementation of the Cantrang fishing gear ban.

## Results and Discussion

The findings of this study reveal several key themes related to stakeholder collaboration in the implementation of the Cantrang fishing gear ban in Lamongan Regency. Firstly, the importance of inclusive stakeholder engagement emerged as a critical factor for successful policy implementation. Many local fishermen expressed feelings of exclusion from the decision-making process, which has led to resistance against the ban (Hanum et al., 2021). This highlights the need for government agencies to actively involve local communities in discussions and consultations regarding fisheries management policies.

The Cantrang fishing gear, a type of seine net, has been a focal point of debate in Lamongan Regency due to its perceived environmental impact and its role in overfishing. The ban on this gear was instituted with the intent to restore fish populations and promote sustainable fishing practices. However, the implementation of such policies often encounters significant challenges, primarily due to the lack of engagement with local stakeholders (Murphy et al., 2020). The exclusion of fishermen from the decision-making process has not only fostered resentment but has also raised questions about the legitimacy of the policies being enforced. This situation underscores the critical need for inclusive stakeholder engagement, which is essential for fostering a sense of ownership and commitment among those most affected by the regulations (Petkovic et al., 2020).

In examining the sentiments of local fishermen, it becomes evident that their experiences and insights are invaluable for shaping effective fisheries management policies. Many fishermen voiced concerns that the ban was imposed without adequate consultation,

leading to a perception that their livelihoods were being jeopardised without their input (Packer et al., 2020). This disconnect between policymakers and local communities can lead to a lack of compliance with regulations, as seen in various instances globally where top-down approaches have resulted in resistance and non-compliance (Maulani et al., 2025). By actively involving fishermen in the decision-making process, government agencies can not only enhance the legitimacy of their policies but also tap into the wealth of traditional ecological knowledge that local communities possess.

Moreover, the role of education and awareness-raising cannot be overstated in the context of stakeholder engagement. Many fishermen may not fully understand the rationale behind the ban on Cantrang gear, nor the long-term benefits of sustainable fishing practices (Jacquet et al., 2010). Therefore, government agencies should invest in educational initiatives that explain the ecological and economic benefits of such policies. Workshops, community meetings, and informational campaigns can serve as platforms for dialogue between fishermen and policymakers, fostering a collaborative atmosphere where concerns can be voiced, and solutions can be co-created. For instance, case studies from other regions where similar bans have been successfully implemented can be presented to illustrate potential positive outcomes, thereby encouraging local buy-in and support (dea aulia, 2025)

Transitioning from the importance of engagement to the mechanisms of collaboration, it is imperative to consider the structures that facilitate stakeholder involvement (Ganeshu et al., 2024). Establishing formal channels for communication between government agencies and local communities is crucial. This could take the form of advisory councils or stakeholder forums that include representatives from various sectors, including fishermen, environmentalists, and local business owners. Such structures would not only provide a platform for dialogue but also ensure that diverse perspectives are considered in the policy-making process. The establishment of these collaborative frameworks can also help to build trust between stakeholders, which is essential for the successful implementation of any policy (Erdi Febryanti & Darmawan, 2024)

In addition to formal structures, informal networks also play a significant role in facilitating stakeholder collaboration. Local fishing communities often have established social networks that can be leveraged to disseminate information and gather feedback on policy initiatives. Engaging with these networks can enhance the reach of educational efforts and ensure that messages resonate with the target audience. For example, involving respected community leaders in discussions about the Cantrang ban can help to bridge the gap between policymakers and fishermen, fostering a sense of solidarity and shared purpose (Rembang et al., 2021).

Furthermore, the integration of technology in stakeholder engagement presents new opportunities for enhancing communication and collaboration. Digital platforms can be utilised to create forums for discussion, share information, and gather input from a wider audience. For instance, mobile applications could be developed to provide real-time updates on policy changes, fishing regulations, and ecological data, thereby empowering fishermen

with the knowledge they need to adapt to new practices. The use of technology not only facilitates greater inclusivity but also allows for the collection of data that can inform future policy decisions (Taufiqurrahman, 2022).

As we delve deeper into the implications of the Cantrang fishing gear ban, it is essential to consider the socio-economic impacts on local communities. The livelihoods of many fishermen depend on the ability to use specific fishing gear, and any restrictions can have far-reaching consequences. Therefore, it is crucial for policymakers to consider alternative livelihood options for those affected by the ban. This could involve providing training and resources for fishermen to transition to more sustainable fishing practices or exploring alternative income-generating activities that align with conservation goals. By addressing the socio-economic dimensions of the ban, policymakers can mitigate resistance and foster a more supportive environment for policy implementation (Mahayani, 2025).

The potential for conflict arising from the ban cannot be overlooked. As fishermen resist the changes imposed by the ban, tensions may escalate between different stakeholder groups, including government authorities and local communities. Addressing these conflicts requires a nuanced understanding of the underlying issues and a commitment to finding common ground. Conflict resolution mechanisms, such as mediation and negotiation, should be employed to address grievances and foster dialogue among stakeholders. By prioritising conflict resolution, government agencies can help to create a more harmonious environment conducive to collaboration and policy compliance (Akbar & Hadin, 2023).

Additionally, the role of monitoring and evaluation in the implementation of the Cantrang fishing gear ban is paramount. Continuous assessment of the policy's impact on fish populations, local economies, and community well-being is essential for determining its effectiveness. Engaging stakeholders in the monitoring process can enhance transparency and accountability, ensuring that the policy remains responsive to the needs of local communities. For instance, involving fishermen in data collection efforts can provide valuable insights into the ecological effects of the ban while also fostering a sense of ownership over the outcomes (Fajri et al., 2021).

In conclusion, the findings of this study underscore the critical importance of inclusive stakeholder engagement in the implementation of the Cantrang fishing gear ban in Lamongan Regency. By actively involving local communities in the decision-making process, government agencies can foster a sense of ownership and commitment to sustainable fishing practices. The establishment of formal and informal channels for communication, the integration of technology, and the consideration of socio-economic impacts are all essential components of a successful stakeholder collaboration framework. Furthermore, addressing potential conflicts and prioritising monitoring and evaluation will ensure that the policy remains effective and responsive to the needs of local communities. Ultimately, a collaborative approach that values the voices of all stakeholders will pave the way for more sustainable fisheries management and the preservation of livelihoods in Lamongan Regency.

The role of non-governmental organisations (NGOs) as facilitators of collaboration in the context of sustainable fishing practices has been a focal point of recent research. NGOs serve as critical intermediaries, bridging the gap between governmental authorities and local fishing communities. Their involvement is not merely beneficial; it is often essential in fostering an environment conducive to sustainable practices and effective policy implementation. This discussion will delve into the multifaceted roles that NGOs play, illustrated through specific examples, and will highlight the importance of effective communication channels among stakeholders in the fishing sector.

Firstly, it is crucial to understand the unique position that NGOs occupy within the framework of sustainable fishing. Unlike government bodies, which may be constrained by bureaucratic processes and political agendas, NGOs often possess the agility and flexibility needed to respond swiftly to local needs. They are frequently embedded within the communities they serve, allowing them to gain valuable insights into the challenges faced by local fishermen. This proximity enables NGOs to tailor their interventions effectively, ensuring that the support provided is relevant and impactful. For example, ([Hermawan et al., 2024](#)). highlight the efforts of an NGO in Lamongan, which has successfully conducted training sessions aimed at educating fishermen about alternative fishing methods. This initiative not only promotes sustainable practices but also empowers fishermen by providing them with the knowledge and skills necessary to adapt to changing regulations and environmental conditions.

The transition away from traditional fishing methods, such as the use of Cantrang gear, exemplifies the challenges faced by local fishing communities. Cantrang, a type of fishing gear that has been associated with overfishing and environmental degradation, has been a contentious issue in Indonesia. The NGO's training sessions have played a pivotal role in facilitating this transition by introducing fishermen to more sustainable practices. Through hands-on training and demonstrations, fishermen learn about techniques that minimise bycatch and protect marine ecosystems. This practical approach not only enhances the fishermen's understanding of sustainable fishing but also fosters a sense of ownership over their practices, ultimately leading to greater compliance with regulations.

Furthermore, the role of NGOs extends beyond training and education; they also provide crucial technical support to local fishermen. This support can manifest in various forms, including assistance with the development of sustainable fishing gear, access to funding for new initiatives, and guidance on best practices in marine conservation. For instance, NGOs often collaborate with researchers to develop innovative fishing technologies that reduce environmental impact. By facilitating partnerships between fishermen and scientists, NGOs can help bridge the gap between traditional knowledge and scientific research, creating a more holistic approach to sustainable fishing.

However, despite the positive contributions of NGOs, the research also revealed significant barriers to effective collaboration among stakeholders in the fishing sector. Many participants expressed concerns about misunderstandings and a lack of information, which

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have hindered efforts to implement sustainable practices. This highlights the critical need for establishing effective communication channels among all stakeholders, including government agencies, NGOs, and local fishing communities. Clear communication pathways are essential for fostering trust and cooperation, which are vital for successful policy implementation.

Effective communication is not merely about disseminating information; it is about creating a dialogue that encourages feedback and participation from all parties involved. For instance, regular meetings and workshops can provide a platform for stakeholders to share their experiences, concerns, and suggestions. This participatory approach not only enhances transparency but also empowers local fishermen by giving them a voice in the decision-making process. When fishermen feel heard and valued, they are more likely to engage with and support sustainability initiatives.

Moreover, the establishment of communication networks can facilitate the sharing of best practices among fishing communities. For example, if one community successfully implements a sustainable fishing technique, sharing this knowledge with neighbouring communities can lead to a ripple effect of positive change. NGOs can play a pivotal role in this knowledge exchange by documenting successful case studies and disseminating them through various channels, such as social media, workshops, and community events. This not only raises awareness but also inspires other fishermen to adopt similar practices, thereby amplifying the impact of sustainability efforts.

In addition to fostering collaboration among local stakeholders, NGOs also serve as advocates for the fishing communities at the policy level. By representing the interests of fishermen in discussions with government authorities, NGOs can help ensure that local voices are heard in the formulation of policies that affect their livelihoods. This advocacy is particularly important in the context of sustainable fishing, where regulations can significantly impact the economic viability of local fisheries. By articulating the concerns and needs of fishermen, NGOs can contribute to the development of policies that are not only environmentally sustainable but also socially equitable.

The interplay between NGOs and government agencies is another critical aspect of this discourse. While NGOs often act as facilitators of collaboration, their relationship with government bodies can be complex. In some cases, governments may view NGOs with suspicion, perceiving them as challengers to their authority. However, when NGOs and government agencies work collaboratively, they can achieve far-reaching outcomes. For instance, joint initiatives that involve both NGOs and government representatives can lead to the co-creation of policies that are informed by on-the-ground realities. This collaborative approach can enhance the legitimacy of policies and increase their acceptance among local fishermen.

Furthermore, the role of NGOs in raising awareness about sustainable fishing practices cannot be overstated. Through campaigns, educational materials, and community outreach, NGOs can play a significant role in changing perceptions and behaviours related to fishing

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practices (Karim & Almira, 2023). For example, awareness campaigns that highlight the importance of marine conservation can encourage fishermen to adopt more sustainable practices. By framing sustainable fishing as not only an environmental necessity but also an economic opportunity, NGOs can motivate fishermen to embrace change.

In light of these discussions, it is evident that the role of NGOs in facilitating collaboration among stakeholders in the fishing sector is multifaceted and dynamic. Their ability to provide technical support, raise awareness, and advocate for local communities positions them as essential players in the pursuit of sustainable fishing practices. However, for their efforts to be truly effective, there must be a concerted focus on establishing clear communication channels and fostering a culture of collaboration among all stakeholders.

In conclusion, the research underscores the critical role that NGOs play as facilitators of collaboration in the fishing sector. By bridging the gap between government and local fishermen, NGOs contribute to the promotion of sustainable fishing practices and the effective implementation of policies. However, the success of these efforts hinges on the establishment of effective communication pathways that foster trust and cooperation among stakeholders. As the fishing industry grapples with the challenges of sustainability, the collaborative efforts of NGOs, government agencies, and local communities will be paramount in ensuring the long-term viability of marine resources. The insights gleaned from this research provide a valuable framework for understanding the complexities of stakeholder collaboration and highlight the importance of NGOs in driving positive change within the fishing sector.

The intricate dynamics of stakeholder collaboration in fisheries management are frequently marred by conflicts, particularly between government authorities and local fishermen. This tension often arises from differing priorities and perspectives regarding resource use, conservation efforts, and regulatory frameworks. The research conducted by Afrihadi (2025) underscores the critical importance of conflict resolution mechanisms in facilitating effective collaboration among these diverse groups. By implementing structured processes for conflict resolution, stakeholders can address grievances in a constructive manner, ultimately fostering a more harmonious working relationship.

Conflict is an inherent aspect of any collaborative effort, particularly in resource management where multiple parties have vested interests. For instance, local fishermen may prioritise immediate economic gains from fishing activities, while government authorities might focus on long-term sustainability and conservation goals. This divergence in priorities can lead to misunderstandings and disputes, which, if left unaddressed, can escalate into significant barriers to effective collaboration. A structured conflict resolution mechanism, such as mediation or facilitated dialogue, can provide a platform for open communication, allowing stakeholders to express their concerns and negotiate mutually beneficial solutions.

Illustratively, consider a scenario in which local fishermen are opposed to a new fishing regulation imposed by the government. Without a structured conflict resolution process, this opposition could manifest in protests or non-compliance, further straining the relationship

between the two parties. However, if a mediation process is established, both fishermen and government representatives can engage in a dialogue that not only addresses the fishermen's concerns but also educates them on the rationale behind the regulation. This collaborative approach can lead to a shared understanding and, ultimately, a more cooperative relationship.

Moreover, the findings from afrihadi (2025) highlight that the implementation of conflict resolution mechanisms must be coupled with ongoing monitoring and evaluation of policies. Such monitoring is crucial for assessing the effectiveness of initiatives, such as the ban on Cantrang fishing gear, which has been a contentious issue in many fishing communities. Regular assessments allow stakeholders to gauge the impact of these policies on both the environment and the fishing community, providing valuable feedback that can inform future decision-making.

The necessity for continuous monitoring is further emphasised by yasyfi (2022), who note that stakeholders expressed a strong desire for regular evaluations of the fishing gear ban. This feedback loop is essential for adaptive management, a strategy that allows for the modification of policies based on real-world outcomes and stakeholder input. For instance, if monitoring reveals that the ban has led to unintended consequences, such as increased illegal fishing activities or economic hardship for local fishermen, stakeholders can collaboratively explore alternative solutions or adjustments to the policy.

Adaptive management is not merely a reactive approach; it embodies a proactive philosophy that prioritises resilience within fisheries management. By embracing an adaptive management framework, stakeholders in Lamongan Regency can better navigate the complexities of fisheries dynamics, ensuring that both ecological and economic needs are met. This resilience is particularly vital in the face of external pressures such as climate change, which poses significant challenges to marine ecosystems and fishing livelihoods.

Furthermore, the role of technology in enhancing conflict resolution and monitoring processes cannot be overlooked. Digital platforms and tools can facilitate communication among stakeholders, allowing for real-time updates and feedback collection. For example, mobile applications could be developed to enable fishermen to report their catches and any challenges they face, providing government authorities with valuable data to inform policy adjustments. This integration of technology not only streamlines communication but also empowers local communities by giving them a voice in the management process.

In addition, the establishment of stakeholder forums can serve as a vital space for ongoing dialogue and collaboration. These forums can bring together fishermen, government representatives, and other relevant parties to discuss current issues, share experiences, and collaboratively develop strategies for addressing challenges. Such inclusive platforms foster a sense of ownership among stakeholders, as they feel more invested in the outcomes of policies that directly affect their livelihoods.

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The importance of building trust among stakeholders cannot be overstated. Trust is a fundamental component of effective collaboration, and its absence can exacerbate conflicts and hinder progress. By consistently engaging in transparent communication and demonstrating a commitment to addressing concerns, stakeholders can cultivate a culture of trust. This trust is essential for fostering a collaborative environment where stakeholders are more willing to share information, voice concerns, and work together towards common goals.

Additionally, training and capacity-building initiatives can further enhance stakeholder collaboration. By equipping local fishermen and government officials with the skills and knowledge necessary for effective communication and conflict resolution, the likelihood of misunderstandings and disputes can be significantly reduced. Workshops and training sessions can focus on negotiation techniques, problem-solving strategies, and the importance of empathy in communication, ultimately empowering stakeholders to navigate conflicts more effectively.

As the research suggests, the path towards successful fisheries management in Lamongan Regency is not a straightforward one. It requires a multifaceted approach that incorporates conflict resolution mechanisms, ongoing monitoring, adaptive management, and the active participation of all stakeholders. By recognising the complexities of these dynamics and prioritising collaboration, stakeholders can work towards sustainable fisheries management that benefits both the environment and the local community.

In conclusion, the significance of conflict resolution mechanisms in stakeholder collaboration cannot be understated. The research conducted by Afrihadi (2025), highlights the necessity for structured processes that facilitate dialogue, ongoing monitoring, and adaptive management in fisheries policy implementation. By fostering a culture of collaboration, building trust, and embracing technology, stakeholders in Lamongan Regency can navigate the challenges of fisheries management more effectively. Ultimately, this collaborative approach holds the potential to enhance the resilience of fisheries, ensuring the sustainability of both marine resources and the livelihoods of local communities. As the world grapples with the pressing challenges of resource management, the lessons learned from Lamongan Regency can serve as a valuable model for other regions facing similar conflicts and complexities.

## **Conclusion**

The study's findings underscore the critical role of stakeholder collaboration in the successful implementation of the Cantrang fishing gear ban in Lamongan Regency. Key stakeholders including government agencies, local fishermen, NGOs, and the fishing industry each contribute uniquely to the policy process, and their cooperation is essential for sustainable outcomes. Inclusive engagement of local fishermen is especially important to build support and compliance, and this requires open dialogue and participatory decision-making. NGOs also play a pivotal role as intermediaries, facilitating training, raising awareness, and advocating for environmentally responsible practices. Furthermore,

effective communication and trust-building among stakeholders are crucial for minimizing misunderstandings, while structured conflict resolution mechanisms help manage disputes and maintain productive relationships.

In addition to these collaborative elements, ongoing monitoring and evaluation are necessary to adaptively manage the implementation of the policy. The study reveals that collaboration takes time to mature; communities that have practiced stakeholder collaboration for over two years tend to achieve significantly better results than those in the early stages. This finding emphasizes the need for patience and sustained commitment. Moreover, the effectiveness of any collaboration model is heavily influenced by local socioeconomic and ecological conditions highlighting that a one-size-fits-all approach is inadequate. Therefore, tailoring strategies to the specific context of each community is essential. Overall, the stakeholder collaboration model in Lamongan Regency offers a promising framework for advancing sustainable fisheries management and protecting marine biodiversity.

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