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Tenurial Conflict Dynamics in the Governance of Sustainable Mangrove Ecotourism at Paluh Getah Beach

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Abstract:
Indonesia holds the world's largest mangrove ecosystem, with Paluh Getah Beach in Tanjung Rejo Village, North Sumatra, standing out as a promising mangrove ecotourism destination that supports both community livelihoods and the achievement of the Sustainable Development Goals (SDGs), particularly Goals 8, 13, 14, and 15. Despite this potential, the management of the area has been hindered by a tenurial conflict between the local community and the Bakti Nyata Forest Farmer Group (KTHBN). This study aims to analyze the tenurial conflict occurring between the local community and KTHBN and to examine the pattern of collaborative governance that can be built to support sustainable mangrove ecotourism management and the achievement of the SDGs at Paluh Getah Beach. A qualitative descriptive approach with a case study design was employed, with data gathered through field observation, in-depth interviews with affected residents and ecotourism managers, and documentation of relevant spatial-planning regulations, then analyzed through content analysis and inductive analysis. The findings show that the tenurial conflict has restricted community access to mangrove resources, stalled local economic initiatives, and limited the equitable distribution of ecotourism benefits managed by the Village-Owned Enterprise (BUMDes), while collaboration among the community, KTHBN, the village government, and external partners remains fragmented and disconnected. The study concludes that resolving the tenurial conflict and establishing an inclusive, multi-stakeholder governance framework are fundamental preconditions for sustainable mangrove ecotourism management and the achievement of the SDGs at Paluh Getah Beach.

Keyword: Mangrove Ecotourism, Tenurial Conflict, Collaborative Governance, Sustainable Tourism

INTRODUCTION

Indonesia is recorded as having the world's largest mangrove ecosystem, with an area reaching 3.44 million hectares based on the 2024 update of the National Mangrove Map, equivalent to more than 20 percent of the global mangrove ecosystem

(Singgalen, 2023; Herdiwan et al., 2022). This wealth is spread across various islands, with Sumatra being one of the main contributors alongside Papua and Kalimantan (Harefa et al., 2022). Mangrove ecosystems hold substantial ecological value while also opening space for the growth of the ecotourism sector in many coastal villages, where communities can enjoy the natural beauty of mangroves while learning about the importance of environmental sustainability (Akbar et al., 2021; Maharani et al., 2021). Sound management of this potential opens new economic opportunities for coastal residents and fosters collective awareness of the need to protect the ecosystem that sustains their lives (Hilmi et al., 2023; Sasmito et al., 2023).

The strategic value of mangroves becomes even more apparent when linked to the sustainable development agenda, or the Sustainable Development Goals (SDGs), particularly Goal 8 on Decent Work and Economic Growth, Goal 13 on Climate Action, Goal 14 on Life Below Water, and Goal 15 on Life on Land (Rohmawati et al., 2022; Bimrah et al., 2022). Mangroves function as carbon sinks, support biodiversity, and simultaneously serve as a source of livelihood for coastal communities living alongside them (Kusmana & Rifana, 2023; Ginting et al., 2023). The presence of mangrove ecotourism serves as one way of bringing together the interests of environmental preservation and the economic needs of local communities, so that the achievement of the SDGs can be felt directly by those closest to the resource (Hidayah et al., 2022; Puspitaloka et al., 2025).

Tanjung Rejo Village, located in Percut Sei Tuan Sub-district, Deli Serdang Regency, North Sumatra, is one of the coastal areas that holds this mangrove wealth. This village, covering 19 km^2 with a population of 11,226 people, has a mangrove forest area of approximately 602,181 ha, with the majority of its residents earning their living as farmers, fishers, and traders (Rachman et al., 2023; Sinabang et al., 2022). The mangrove wealth in this village has since been developed into one of its well-known tourist destinations, namely Paluh Getah Mangrove Beach (Naibaho et al., 2022; Tegardo, 2025).

Paluh Getah Mangrove Beach offers the experience of exploring the mangrove forest along wooden boardwalks, traveling by boat along the river, and observing coastal flora and fauna such as birds, fish, and crabs (Naibaho et al., 2022; Paulina et al., 2023). The steadily growing number of visitors has also opened local economic opportunities such as homestays, food stalls, and handicrafts for nearby residents. The growth of ecotourism in this area has further been enlivened by various mangrove-planting activities involving private companies, government agencies, and even the Indonesian Army, as part of a joint effort to preserve the coastal environment (Tegardo, 2025).

Amid this thriving ecotourism activity, a challenge has also emerged for the local community in managing this mangrove area, namely a land-ownership dispute with the Bakti Nyata Forest Farmer Group (Kelompok Tani Hutan Bakti Nyata/KTHBN). This dispute restricts residents' ability to make use of timber and other mangrove resources, hampers creative economic initiatives that had begun to take shape, and means that the benefits of the ecotourism managed by the Village-Owned Enterprise (BUMDes) have not been fully felt by the surrounding community. This issue illustrates that managing sustainable mangrove ecotourism carries a fairly intricate social dimension, one that extends beyond simply devising technical tourism-development strategies.

The tenurial dispute at Paluh Getah Beach needs to be understood within the formal institutional status of the mangrove area. Available institutional documentation

indicates that the Bakti Nyata Forest Farmer Group (Kelompok Tani Hutan Bakti Nyata/KTHBN) received formal approval from the Ministry of Environment and Forestry through Ministerial Decree No. SK.8542/MENLHK-PSKL/PKPS/PSL.0/12/2021, dated 24 December 2021, covering approximately 83 hectares in a protected forest area in Tanjung Rejo Village. The documented form of management includes the utilization of environmental services, including ecotourism. This institutional recognition is important because it distinguishes KTHBN's position from a simple claim of ownership: under the social forestry framework, management approval does not constitute ownership of the forest area. Regulation of the Minister of Environment and Forestry No. 9 of 2021 on Social Forestry Management explicitly provides that social forestry management approval may be granted to forest farmer groups and does not constitute ownership rights over the forest area.

The legal position of the local community is different. The evidence collected in this study indicates that residents' claims are primarily grounded in long-standing residence, livelihood dependence, and historical use of mangrove resources rather than in a documented land-ownership title. Consequently, the conflict should not be framed simply as a dispute between community ownership and KTHBN ownership. Rather, it represents a conflict between community-based claims to access and use and a formally recognized social forestry management arrangement. The distinction is analytically important because the scope of KTHBN's authority, the forms of community access that may be recognized, and the mechanisms available for resolving the conflict depend on the legal status of the forest area and the terms of the management approval. The existence of a formal social forestry approval therefore provides KTHBN with an institutional basis for managing the designated area, but it does not by itself extinguish the need to determine how local communities can participate in and benefit from forest management.

A number of previous researchers have examined collaborative governance in mangrove ecotourism across different regions of Indonesia. A study of the Banua Pangka mangrove ecotourism destination in East Luwu showed how community-based collaboration among local actors strengthens area management (Alfiandri et al., 2024b; Darwis et al., 2025; Zakaria et al., 2025). Research on the Air Telang mangrove area in Banyuasin, South Sumatra, identified a gap between national policy on mangrove rehabilitation within the SDGs framework and local community practices oriented toward short-term economic needs, positioning tenurial conflict as one of the main obstacles to policy implementation on the ground (Presta et al., 2025).

Both studies indicate that tenurial conflict and governance arrangements in mangrove ecotourism are closely connected, yet in each case conflict is treated primarily as a contextual barrier that governance efforts must work around, rather than as a factor that actively shapes the direction and form governance eventually takes. This leaves an analytical gap in how tenurial conflict itself functions as a driver of governance pattern, not simply an obstacle sitting alongside it. Studies on Paluh Getah Beach so far have concentrated on the general role of the local community and on technical strategies for tourism development, leaving the tenurial conflict with KTHBN, despite its direct bearing on the community's access to ecological and economic benefits and on the achievement of the SDGs in this area, largely unexamined as a subject in its own right. Baseline

comparative research also highlights the analytical importance of tenure and unequal decision-making power in coastal wetland governance (de Oliveira et al., 2024).

This study addresses that gap by treating tenurial conflict not as background context but as the central analytical lens through which the governance of sustainable mangrove ecotourism at Paluh Getah Beach is examined. Rather than asking only how collaboration can be built despite conflict, this study asks how the conflict itself, through the access it restricts, the actors it draws in, and the negotiations it forces, shapes the structure and possibilities of the governance that follows. This reframing offers a contribution that extends beyond a single case: it proposes conflict dynamics as an analytical entry point that can be applied to other mangrove ecotourism sites facing similar disputes over tenure. Building on this framing, the study aims to analyze the tenurial conflict between the local community and the Bakti Nyata Forest Farmer Group (KTHBN), as well as to examine the pattern of collaborative governance that can be built to support sustainable mangrove ecotourism management and the achievement of the SDGs at Paluh Getah Beach.

This study draws on a collaborative governance framework that explains how state and non-state actors jointly manage collective problems (Ansell & Gash, 2008). The framework identifies four interrelated dimensions that shape whether collaboration succeeds. Starting conditions cover the resource and power imbalances among actors along with their prior history of cooperation or conflict. Institutional design refers to the rules, inclusiveness, and transparency that structure the collaborative process. Facilitative leadership mediates differences among actors and keeps them engaged in the process. The collaborative process itself is built through face-to-face dialogue, trust-building, and the development of shared understanding among participants. These four dimensions provide the analytical structure used in this study to interpret how the tenurial conflict and the existing pattern of actor involvement at Paluh Getah Beach either support or obstruct the emergence of effective collaborative governance.

RESEARCH METHOD

This research employs a case study design with a qualitative descriptive approach to unpack the dynamics of the tenurial conflict between the local community and the Bakti Nyata Forest Farmer Group (KTHBN), as well as the pattern of collaborative governance formed around it. This design was chosen because the issue under study is highly location-specific and involves multiple actors with intersecting interests, requiring an in-depth exploration of the social and historical aspect of the conflict rather than a mere measurement of a single, standalone variable.

The research was conducted at Paluh Getah Beach, Jl. Paluh Getah, Dusun XIV, Tanjung Rejo Village, Percut Sei Tuan Sub-district, Deli Serdang Regency, North Sumatra. This location was selected because it is the direct site of the mangrove land-ownership dispute that had been ongoing for about a year between the local community and KTHBN. The research subjects are the local community of Tanjung Rejo Village and the ecotourism managers under the Village-Owned Enterprise (BUMDes), while the research object is the governance practice of the Paluh Getah mangrove ecotourism area, particularly concerning the power relations and resource-access distribution that emerged as a result of the tenurial conflict. Informants were determined through purposive sampling, with criteria including residents directly affected by the land

dispute, those involved in mangrove-based economic activities, and those with involvement in BUMDes management. A total of ten informants were interviewed, consisting of five residents directly affected by the land dispute, three individuals involved in day-to-day ecotourism management, and two members of BUMDes management. Among them, CS (48 years old) and AY (36 years old) provided the most detailed accounts of the conflict's chronology and its impact on community access to timber and mangrove products.

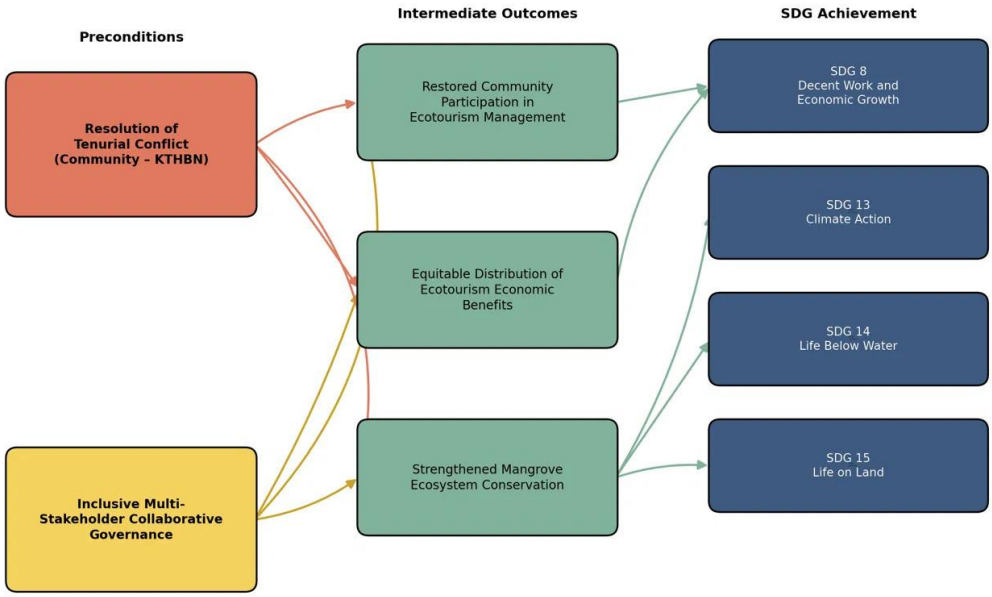


Figure 1. Conceptual framework
Source: Author, 2026

The collected data were analyzed through three interrelated stages. Interview transcripts, field observation notes, and policy documents were read repeatedly and coded line by line, with initial codes assigned to recurring statements about land claims, resource access, economic activity, and collaboration among actors. These codes were then grouped into broader categories through content analysis of policy documents and records of collaborative activities, and through inductive analysis of the coded interview and observation data, allowing patterns to emerge directly from the field material rather than being imposed from a predetermined framework. Categories that repeatedly surfaced across informants and data sources, such as competing ownership claims, restricted access to mangrove resources, and fragmented collaboration among actors, were consolidated into the three main themes presented in the Results and Discussion section, namely the dynamics of the tenurial conflict, the pattern of collaborative governance among actors, and the implications of resolving the conflict for the achievement of the SDGs at Paluh Getah Beach.

Throughout this process, findings were cross-checked against the theoretical framework outlined earlier, so that the themes constructed from the field data could also be interpreted through the dimensions of starting conditions, institutional design, facilitative leadership, and collaborative process. In addition, the documentary analysis was used to distinguish between perceived claims and formally recognized institutional authority. This distinction was important in interpreting the conflict because residents'

accounts primarily described historical access and livelihood dependence, whereas the institutional documentation provided evidence of KTHBN's formal social forestry management status. The analysis therefore did not treat long-term community use as equivalent to legally documented ownership, nor did it equate KTHBN's management approval with ownership of the forest area. Instead, the two forms of legitimacy were examined in terms of their respective institutional bases, scope, and implications for access and participation.

The credibility of these findings was strengthened through source triangulation, comparing accounts from residents directly affected by the land dispute with those from informants involved in BUMDes management and mangrove-based economic activities, so that the picture of the conflict was not built from a single vantage point alone. Method triangulation was also applied by cross-checking information gathered through in-depth interviews against direct field observation and documentation of relevant spatial-planning regulations, allowing claims raised in interviews, such as restrictions on timber access, to be verified against conditions observed on the ground and against the formal regulatory record. Dependability was maintained by keeping a consistent set of interview guidelines and observation notes across all informants, so that the process of data collection could be traced and reconstructed. Confirmability was pursued by returning preliminary interpretations to selected informants during the fieldwork process, allowing them to confirm or correct the researcher's understanding of the chronology and impact of the conflict before those interpretations were finalized in the analysis.

RESULTS AND DISCUSSION

1. Dynamics of the Tenurial Conflict between the Local Community and KTHBN at Paluh Getah Beach

The land-ownership dispute between the community of Tanjung Rejo Village and the Bakti Nyata Forest Farmer Group (KTHBN) has become an issue overshadowing nearly every aspect of mangrove ecotourism management at Paluh Getah Beach. Field findings on this conflict are presented in Table 1 below. This conflict originated from differing views on who holds the right to manage the mangrove area at Paluh Getah Beach. The community of Tanjung Rejo Village, who have lived in and depended on the mangroves for their livelihood for years, feel they hold a natural right to the land, while KTHBN holds formal legitimacy as the group designated to manage the area. This pattern of competing claims bears a strong resemblance to findings on the land conflict at Bukit Kaba Nature Tourism Park, Kepahiang (Wijayanti et al., 2024). That study showed that transmigrant communities and the forestry authorities alike believed they held rights to the same area, with the conflict rooted in changes to the area's status and the rules governing which types of crops could be cultivated, ultimately resulting in restrictions on the economic activities of nearby residents.

Also that, the conflict originated from the intersection of two different sources of legitimacy over the mangrove area. On the one hand, residents of Tanjung Rejo have developed long-standing livelihood relationships with the mangrove ecosystem and consequently perceive themselves as having a legitimate claim to access and participate in its management. On the other hand, KTHBN has a formally recognized institutional position through the social forestry management approval issued by the Ministry of Environment and Forestry. Publicly available documentation identifies Ministerial Decree

No. SK.8542/MENLHK-PSKL/PKPS/PSL.0/12/2021, dated 24 December 2021, as the legal basis for KTHBN's management of approximately 83 hectares in the protected forest area of Tanjung Rejo Village. The documented management activities include the utilization of environmental services, including ecotourism.

Table 1. Dynamics of the Tenurial Conflict in the Management of Paluh Getah Mangrove Ecotourism

No.	Aspect of Findings	Brief Description
1.	Competing tenure and management claims	The community's claim is primarily grounded in long-standing residence, livelihood dependence, and historical use of mangrove resources, while KTHBN's management position is supported by its formal social forestry approval covering approximately 83 hectares of protected forest. The two positions therefore represent different forms of legitimacy rather than equivalent claims of ownership.
2.	Restriction of resource access	Residents are prohibited from harvesting mangrove timber, even for basic needs such as protecting settlements from saltwater intrusion.
3.	Stalled external collaboration	Government and non-governmental involvement in mediating the conflict remains slow-moving and has not yet produced any common ground.
4.	Hindered creative economic initiatives	Residents' efforts to plant and make use of mangrove timber for economic activities have been halted due to KTHBN's prohibition.
5.	Disparity in ecotourism benefits	BUMDes management is seen as having involved native village residents only minimally, so the economic benefits of tourism are enjoyed mostly by outside parties.

Source: Field observation and interview results, 2026

This distinction is critical because the formal recognition of KTHBN does not mean that the group holds ownership of the forest area. Under Minister of Environment and Forestry Regulation No. 9 of 2021, social forestry management approval may be granted to forest farmer groups, while the approval itself does not constitute ownership rights over the forest area. The institutional basis of KTHBN's position should therefore be understood as a management arrangement within the social forestry regime rather than as a private ownership title. By contrast, the community's claim documented in this study is primarily based on historical residence, livelihood dependence, and customary patterns of resource use; the study did not identify a formal land title establishing community ownership over the disputed area.

The resulting conflict is therefore better characterized as a dispute over access, participation, and the distribution of management authority and benefits within a formally regulated forest area. This distinction also helps explain why the conflict persists despite the existence of a formal management arrangement. The legal recognition of KTHBN establishes an institutional basis for forest management, but it does not by itself resolve how surrounding residents should participate in decision-making or obtain legitimate livelihood benefits from the area (Bell-James et al., 2025). Conversely, the community's historical dependence on mangrove resources provides an important social basis for participation, but it does not automatically establish ownership or an

unrestricted right to extract forest resources. The central institutional problem is consequently the absence of a mutually recognized arrangement that connects KTHBN's formal management authority with meaningful community participation and access.

The Paluh Getah case therefore does not represent a complete absence of formal legal recognition. Rather, the evidence points to a gap between formal recognition of KTHBN's social forestry management authority and the practical institutional arrangements governing community access, participation, and benefit sharing. This distinction is important because the presence of a formal management approval does not automatically resolve competing claims at the local level. The problem lies partly in how the formal management arrangement is translated into everyday access and collaborative decision-making among the actors who depend on and manage the mangrove ecosystem. The most keenly felt impact of this conflict is the restricted room for residents to make use of mangrove timber, even for the simplest of needs. This was confirmed by one informant, CS (48 years old), who recounted the following experience.

> *"People around here have been at odds with the forest farmer group, it's been about a year now, so forget about having a role in management, they're not even allowed to take wood from that beach."*

This statement illustrates how the conflict, which has persisted for roughly a year, has affected residents' everyday access to a resource that has long formed part of their livelihood. This picture reinforces findings from an indigenous land-tenure conflict between a community and a plantation company in North Sumatra, where tensions over land-ownership claims can weaken the perceived legitimacy of a party claiming management rights while hindering residents' economic needs (Harahap & Marpaung, 2023). The similarity between these two cases underscores that legitimacy lies at the core of most agrarian conflicts in both coastal and plantation areas of North Sumatra, including the one occurring at Paluh Getah Beach.

This conflict has also contributed to low community involvement in the ecotourism management carried out under BUMDes. Most residents feel that BUMDes management positions are filled largely by people from outside the village, meaning the economic benefits of tourist visits are not widely felt by the native population of Tanjung Rejo. This situation has led some residents to remain in their traditional livelihoods, such as catching fish and crabs, rather than shifting toward the ecotourism sector that is, in fact, growing in their own backyard.

Collaborative efforts with external parties, whether government or non-governmental organizations, have so far been unable to bridge the differing interests of the community and KTHBN. The slow-moving mediation process has allowed the conflict to drag on, while the economic and ecological potential of the mangrove area continues to go unrealized in the absence of clear management direction. A comparable pattern emerged in the Bukit Kaba case, where multiple parties involved in handling the conflict prolonged the process of sorting out authority and permits, making a full resolution difficult within a short period (Wijayanti et al., 2024).

Behind this yet-unresolved situation, the hopes of the Tanjung Rejo Village community remain fixed on one thing, mangrove ecotourism management whose benefits can be felt by all residents. This hope is a sign that resolving the tenurial conflict

is closely tied to restoring the community's sense of ownership over an area that has long been part of their lives, as is also implied in both comparative studies discussed above, which likewise position the restoration of trust among actors as a fundamental precondition for the sustainable resolution of agrarian conflict. Viewed through the collaborative governance framework, the conflict reflects unfavorable starting conditions characterized by unequal access to institutional authority, different forms of legitimacy, and a history of antagonism between the community and KTHBN (Ansell & Gash, 2008).

The formal recognition of KTHBN's social forestry management authority gives the group an institutional position that the community does not possess in equivalent documentary form, while residents' historical dependence on the mangrove creates a strong social claim for participation and benefit sharing. The resulting asymmetry is therefore not simply a difference in economic resources, but also a difference in formal institutional recognition. Such asymmetry can make collaboration difficult to initiate unless the parties have access to an institutional mechanism through which authority, access, responsibilities, and benefits can be jointly clarified (de Oliveira et al., 2024).

2. Patterns of Collaborative Governance in Supporting Sustainable Mangrove Ecotourism Management at Paluh Getah Beach

Resolving the tenurial conflict at Paluh Getah Beach cannot be separated from the effort to build a pattern of cooperation among actors that has not yet been fully established. A mapping of the roles and collaboration status of the actors identified in the management of this mangrove ecotourism area is presented in Table 2 below. Based on Table 2, the collaboration map, constructed primarily from the community's perspective, indicates that the main problem at Paluh Getah Beach does not lie in the absence of parties concerned with mangrove sustainability, but in the fact that the various existing initiatives have not yet been connected within a single, mutually reinforcing governance framework.

From the community's vantage point, the village and district governments, which would ideally serve as mediation facilitators, appear to remain in a waiting position, while BUMDes operates according to its own operational agenda, and KTHBN is perceived as maintaining its formal authority without opening meaningful space for dialogue with the community. Since KTHBN and government representatives were not interviewed directly for this study, these observations should be read as the community's account of the collaboration gap rather than a verified assessment of each actor's intentions or internal decision-making process. Comparable research identifies stakeholder coordination and inclusive network arrangements as core conditions for sustainable ecotourism governance (Alfiandri & Irawan, 2023; Lubis et al., 2024).

Table 2. Mapping of Actor Roles and Collaboration Status in the Management of Paluh Getah Mangrove Ecotourism

No.	Actor	Expected Role	Current Collaboration Status
1.	Local community of Tanjung Rejo Village	Primary manager and guardian of mangrove sustainability	Limited, due to access restrictions imposed by KTHBN
2.	Bakti Nyata Forest Farmer Group (KTHBN)	Holder of social forestry management approval for approximately 83 ha of	Perceived by the community as operating independently, without

No.	Actor	Expected Role	Current Collaboration Status
		protected forest under Ministerial Decree No. SK.8542/MENLHK-PSKL/PKPS/PSL.0/12/2021	sufficient institutional integration with community participation
3.	Village-Owned Enterprise (BUMDes)	Operational manager of ecotourism activities	Running, though community accounts describe involvement of native village residents as minimal
4.	Village and district governments	Mediation facilitator and spatial-planning regulator	Perceived by the community as not yet optimal in bridging the dispute
5.	Private-sector partners (e.g., PT Soci Mas, CIMB Niaga)	Funding partners and environmental conservation programs	Active in certain programs, not yet integrated with conflict resolution
6.	Indonesian Army and educational institutions	Partners in mangrove-planting and environmental education activities	Active on an incidental basis, not yet part of routine governance

Source: Field observation and interview results, 2026

The institutional position of KTHBN should therefore be distinguished from ownership of the forest area. Its authority derives from the social forestry management approval issued by the Ministry of Environment and Forestry, while the applicable social forestry framework treats such approval as an instrument for granting management access rather than transferring ownership of the forest. The documented management area in Tanjung Rejo is approximately 83 hectares within protected forest, and ecotourism is identified among the environmental-service activities associated with the area. Consequently, the conflict at Paluh Getah should be analyzed in terms of how this formally recognized management arrangement interacts with the community's historical resource dependence and claims for participation, rather than as a straightforward dispute between two parties claiming identical ownership rights.

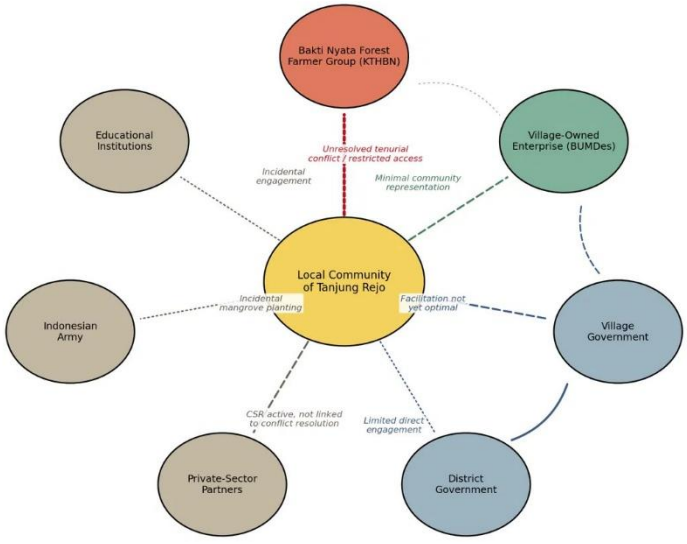


Figure 2. Stakeholder network in the governance of Paluh Getah mangrove ecotourism.
Source: Author, 2026

This network illustrates that the local community sits at the center of a set of relationships that vary widely in strength, ranging from an unresolved conflict with KTHBN to only incidental engagement with the Indonesian Army and educational institutions. None of these relationships approach the density needed for a functioning multi-stakeholder governance structure, which reinforces the pattern already suggested by Table 2, namely that the actors surrounding Paluh Getah Beach operate largely in parallel rather than as a connected system. This disconnect in synergy finds a similar picture in research on coastal resource management in the Bangka Belitung Islands (Aryanti & Rusni, 2024). They found that conflicts in coastal areas often arise not from insufficient compliance with procedural standards, but from the low quality of stakeholder participation in the resource-management process. That study recommends restructuring stakeholder engagement through inclusive discussion forums and empowerment programs targeting each interest group, so that the cooperation built is genuinely grounded in trust among the parties involved (Winoto et al., 2026). The hope for such a forum is also reflected in the account of one informant, AY (36 years old), who described how ecotourism management has so far continued to operate in a fragmented way.

> *"This ecotourism is managed by BUMDes, but most of its members are people from outside the village. So, the profits from this tourism aren't fully felt by the surrounding community. And with the conflict on top of that, it's like they've become cut off from being able to make use of the mangrove ecotourism."*

This statement underscores that the collaborative governance needed at Paluh Getah Beach is not simply a matter of adding more parties to the process, but of ensuring that the local community also holds a seat within BUMDes's decision-making structure, so that residents' sense of ownership over the ecotourism growing in their own village can be restored. Comparable mangrove tourism initiatives indicate that community stewardship can connect conservation activities with locally distributed livelihood opportunities (Swariga et al., 2025). The experience of Lapasi Tourism Village in North Maluku offers a picture of how such a collaborative process can work effectively. National recognition achieved by Lapasi Tourism Village was underpinned by synergy among local government, village government, the community, and business actors, with complementary roles in policy facilitation, cultural and natural preservation, facility investment, and jointly managed mangrove conservation as an educational attraction (Ibrahim et al., 2024).

Both cases offer a crucial lesson for Paluh Getah Beach. Effective collaboration requires a clear division of roles from the outset, regular communication forums among actors, and, just as importantly, resolution of the underlying legitimacy issue before other technical forms of cooperation are built (Alfiandri et al., 2024a). As long as the status of land management between the community and KTHBN remains unresolved, efforts to restructure BUMDes, improve tourism facilities, or expand digital promotion risk becoming little more than surface-level solutions that fail to address the true source of the problem. Ultimately, the collaborative governance envisioned for Paluh Getah Beach needs to place the resolution of the tenurial conflict as its opening step, followed by the

formation of a multi-stakeholder forum that equally involves the village government, KTHBN, BUMDes, the community, and private-sector partners.

Such a forum could serve as a space for reformulating the distribution of access and benefits from ecotourism, while also ensuring that the mangrove conservation programs already underway, whether from CIMB Niaga, PT Soci Mas, or the Indonesian Army, are integrated into a single policy direction that supports the achievement of the SDG targets in this coastal area. Under the collaborative governance framework, the fragmented roles shown in Table 2 point to weak institutional design, since no shared rules or inclusive forum currently bind the actors together, while the slow-moving involvement of village and district governments reflects a lack of facilitative leadership capable of pulling these actors toward a common process (Ansell & Gash, 2008).

Positioned against this wider literature, the findings from Paluh Getah Beach confirm, extend, and in one respect complicate existing knowledge on tenurial conflict and collaborative governance in Indonesian mangrove areas. The finding that unresolved tenure ambiguity restricts community access and disrupts local economic activity confirms recent evidence that clear tenure, management rights, and power-sharing arrangements are necessary for collective coastal ecosystem governance, as well as findings that uncertain tenure within Forest Management Unit areas in Aceh can generate and sustain conflicts between communities and formal management bodies (de Oliveira et al., 2024; Syahputra et al., 2021). The Paluh Getah case extends this line of work by showing more specifically how such conflict translates into a fragmented governance structure, in which each actor, KTHBN, BUMDes, and local government, continues to operate along its own track rather than being drawn into a shared framework, a mechanism that earlier studies note as an outcome of tenure ambiguity but do not trace in comparable institutional detail. Research using social-ecological systems analysis similarly emphasizes the interaction of governance arrangements and local stewardship in mangrove management (Du et al., 2025).

At the same time, the case complicates findings from Waiheru Village, Ambon, where collaborative environmental governance was associated with strengthened community participation and mangrove conservation (Tuanaya, 2026). That study's success rested on a setting where tenure was not contested among the main actors, allowing collaboration to be built directly. Paluh Getah Beach suggests that where tenure remains disputed, the presence of active programs and willing partners, as shown by the CSR initiatives and mangrove-planting activities already running in the area, is not sufficient on its own to produce the kind of collaboration documented in the Waiheru case, since legitimacy over land management has to be settled before collaborative mechanisms can take hold. Research on Batam mangrove ecotourism similarly identifies tensions between regulatory rationalities, market-oriented conservation, and meaningful local community participation (Aji et al., 2026).

3. Implications of Resolving the Tenurial Conflict for the Achievement of the SDGs at Paluh Getah Beach

Resolving the tenurial conflict and strengthening collaborative governance at Paluh Getah Beach carries consequences that extend far beyond the administrative matter of land ownership. When the community regains clear access to the mangroves and ecotourism is managed through a forum involving all parties, the path toward

achieving a number of SDG targets in this area becomes more open. This connection is most evident in Goal 8 on Decent Work and Economic Growth. The restoration of community access to the mangroves reopens space for creative economic initiatives that had previously stalled, while also expanding opportunities for native residents to become directly involved in managing BUMDes. With regard to Goals 13, 14, and 15, concerning climate action and the preservation of life on land and below water, the community's active involvement in protecting the mangroves strengthens the area's function as a carbon sink and a support system for coastal biota, an outcome that is difficult to achieve as long as the management of the area remains marked by tension among its actors (Ebeler et al., 2025; Sasmito et al., 2023).

From a strategic standpoint, these findings point to the importance of legal certainty over land status as a foundation before other ecotourism development programs are carried out. From a strategic standpoint, the findings indicate that legal and institutional clarification must precede the expansion of ecotourism development programs. The first step should be to verify the spatial boundaries of the area covered by KTHBN's social forestry approval, the specific management rights and obligations attached to Ministerial Decree No. SK.8542/MENLHK-PSKL/PKPS/PSL.0/12/2021, and the existing legal basis for community access and participation. This verification is necessary because the documented approval concerns a defined social forestry management area rather than ownership of the forest itself.

Once these institutional boundaries have been verified, the village and relevant forestry authorities should facilitate an arrangement that connects KTHBN's existing management authority with meaningful participation by surrounding residents. A forest partnership arrangement may provide one possible pathway where it is legally compatible with the status of the area and the existing social forestry approval. The social forestry framework recognizes community-based management and partnership arrangements as mechanisms for providing legal access to forest management, while maintaining the distinction between management rights and ownership. The proposed arrangement should therefore not be treated as a new allocation of ownership, but as a potential institutional mechanism for clarifying access, responsibilities, participation, conservation obligations, and benefit sharing within the existing legal framework.

In practical terms, any partnership agreement should clearly specify which community activities are permitted, which activities require authorization, the responsibilities of KTHBN and participating residents for mangrove conservation, the distribution of ecotourism benefits, mechanisms for monitoring compliance, and procedures for resolving future disputes. Claims concerning timber extraction should be treated particularly carefully because historical use does not automatically establish a legal right to harvest forest resources. Any limited utilization proposed for livelihood or protective purposes would therefore need to be assessed against the applicable forest-management rules and the conditions attached to the social forestry approval rather than being assumed as an unrestricted community entitlement (Macamo et al., 2024).

This approach is consistent with the broader policy direction of Indonesian social forestry, which seeks to expand legal community access while maintaining sustainable forest management. Presidential Regulation No. 28 of 2023 explicitly frames the acceleration of social forestry as involving legal access distribution, social forestry business development, and assistance through collaboration among ministries, local

governments, and relevant stakeholders. The current regulatory framework also continues to recognize forestry partnership as one of the forms of community-based forest utilization in protected and production forests. Accordingly, the proposed partnership should be pursued only after the precise legal status and spatial overlap between KTHBN's approved management area and the community's area of use have been established.

A further implication of these findings is the need for ongoing support from a neutral external party, such as academics or civil society organizations, in the mediation process between the community and KTHBN. The presence of a third party trusted by both sides could accelerate a dialogue process that has so far moved slowly, while also ensuring that any agreement reached genuinely accommodates the community's needs rather than merely resolving the conflict on paper (Lubis et al., 2024; Macamo et al., 2024). This study naturally has limitations that should be openly acknowledged. The number of informants involved was also limited to a particular segment of the community, meaning that the perspectives of KTHBN and the local government were not explored in depth in this research. This limitation opens space for future research to provide a more balanced picture that accounts for all parties involved in the conflict.

Beyond these limitations, the pattern found at Paluh Getah Beach is likely relevant to other mangrove ecotourism areas in Indonesia facing similar issues between local communities and formal management groups. Basic principles such as legal certainty over land status, community representation within managing institutions, and multi-stakeholder collaborative forums can serve as an initial reference, although their application will still need to be adapted to the social and institutional characteristics of each location (Bell-James et al., 2025). Further studies tracing the development of this conflict over time, and incorporating the perspectives of KTHBN and local government more comprehensively, would complement the picture presented by this research, in line with the pressing need to support the achievement of the SDGs in the coastal areas of North Sumatra.

CONCLUSION

The tenurial conflict between the local community of Tanjung Rejo Village and the Bakti Nyata Forest Farmer Group (KTHBN) is rooted in competing claims over access, participation, and management of the mangrove area rather than in two formally equivalent claims of ownership. KTHBN has a documented institutional basis for managing approximately 83 hectares of protected forest through Ministerial Decree No. SK.8542/MENLHK-PSKL/PKPS/PSL.0/12/2021, while the community's claims are primarily grounded in long-standing residence, livelihood dependence, and historical use of mangrove resources. The conflict therefore reflects a gap between formally recognized forest-management authority and locally grounded claims for access and participation. This gap restricts community involvement, hinders local economic initiatives, and weakens the integration of ecotourism and conservation activities within a mutually accepted governance framework.

The various actors involved in the area, ranging from the local community and KTHBN to the village government, BUMDes, and external partners, have not yet been connected within a single, mutually reinforcing governance framework, so their respective efforts to develop and preserve the mangrove ecosystem have largely run in

isolation from one another. Resolving this tenurial conflict and building collaborative governance among these actors is therefore not merely an administrative matter, but a fundamental precondition for the mangrove ecosystem at Paluh Getah Beach to function optimally as a source of livelihood, a carbon sink, and a habitat for coastal biodiversity, thereby supporting the achievement of the SDGs, particularly Goals 8, 13, 14, and 15, at the site level. Because the perspectives of KTHBN and local government were not gathered directly, the characterizations of their positions and conduct presented throughout this study reflect how the community perceives and experiences these actors, rather than an independently verified account of their intentions or decision-making.

Based on these findings, the first policy priority should be to clarify the spatial and institutional relationship between KTHBN's approved social forestry management area and the community's existing patterns of access and livelihood use. The village government and relevant forestry authorities should facilitate verification of the management boundaries, the rights and obligations attached to KTHBN's approval, and the legally permissible forms of community participation. A forest partnership arrangement may subsequently be considered where it is compatible with the applicable social forestry regime, with the agreement specifying community access, conservation responsibilities, decision-making participation, and benefit-sharing arrangements. Such an approach would provide a more legally grounded pathway for conflict resolution than simply expanding tourism programs without first addressing the underlying institutional relationship between KTHBN and the surrounding community.

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