



A Collaborative Model for Social Forestry Management Based on Customary Institutions and Local Wisdom in West Sumatra

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Abstract

This study analyzes a collaborative model for Social Forestry management based on customary institutions and local wisdom in West Sumatra. The study responds to the problem that formal Social Forestry permits do not automatically produce effective and sustainable forest governance, especially in customary-based nagari communities. Using a qualitative multi-case study design, this research examines four nagari: Paru in Sijunjung Regency, Pasia Laweh in Agam Regency, Sirukam in Solok Regency, and Halaban in Lima Puluh Kota Regency. Data were collected through semi-structured interviews and documentation studies, then analyzed thematically using the collaborative governance framework of Ansell and Gash. The findings show that collaboration is shaped by starting conditions, facilitative leadership, institutional design, and collaborative process. Pasia Laweh and Sirukam represent an autonomous-adaptive collaboration model supported by strong customary legitimacy, social capital, local leadership, and adaptive institutional arrangements. Halaban represents an external facilitative collaboration model, where NGO support strengthens local capacity and forest restoration activities. Paru shows collaborative failure due to elite domination, weak accountability, illegal gold mining pressure, low trust, and limited facilitative leadership. The study concludes that effective Social Forestry governance requires a hybrid collaborative model that combines state legality, customary legitimacy, facilitative leadership, and continuous multi-actor learning. Local wisdom functions not only as a cultural value, but also as a governance mechanism for building trust, consensus, and collective responsibility in forest management.

Keywords: Social Forestry; collaborative governance; customary institutions; local wisdom.

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Introduction

Social Forestry Policy in Indonesia represents a fundamental paradigm shift in national forest governance (Fisher et al., 2019). For decades, forest management was dominated by a state-centered approach and large-scale commercial exploitation, which often neglected the rights and roles of local communities living in and around forest areas. Social Forestry emerged as a policy response to persistent tenure conflicts, forest degradation, and unequal access to forest resources. Its main objective is to restructure the relationship between the state, forests, and communities by granting local communities legal access to manage forest areas in a more equitable, welfare-oriented, and sustainable manner. Social Forestry is officially defined as a sustainable forest management system implemented in state forest areas or customary forests by local communities to improve welfare, maintain environmental balance, and strengthen socio-cultural dynamics (Minister of Environment and Forestry Regulation No. P.83/2016).

The policy is built upon three interrelated pillars: justice, welfare, and ecological sustainability. First, Social Forestry seeks to distribute access and control more equitably through several management schemes, including Village Forests, Community Forests, Community Plantation Forests, Forestry Partnerships, and Customary Forests. These instruments are intended to recognize and strengthen traditional rights while reducing long-standing tenure conflicts (Fisher et al., 2019; Safitri, 2022). Second, as a welfare-oriented instrument, Social Forestry is expected to promote sustainable local economic development based on forest resources, reduce poverty, and strengthen the resilience of forest village communities (Hidayat et al., 2024; Ramadhan et al., 2025; Santika et al., 2019). Third, ecological sustainability can be achieved when communities have legal certainty and long-term interests in their forests, thereby encouraging responsible forest management practices (Poudel et al., 2025).

However, the implementation of this national policy encounters a distinctive socio-cultural landscape in West Sumatra. A substantial part of the province's territory is socially and culturally claimed as customary land, collectively owned by indigenous communities and governed by Minangkabau customary law (Fathony & Kamil, 2022). Customary land represents a longstanding system of territorial control and resource management that predates the emergence of the modern state (Nuar & Lunkapis, 2019; Syafiq et al., 2015). This condition has created a situation of tenure dualism. The state, through the Ministry of Environment and Forestry, claims these areas as state forests, while indigenous communities regard them as high inheritance that cannot be alienated (Yasmi et al., 2010). Consequently, the implementation of Social Forestry in West Sumatra is not merely a matter of state administration, but also a process of negotiation that must engage with customary law, customary governance, and local wisdom (Adianto, 2022; Mansur & Hann, 2026).

This socio-cultural context is reinforced by the legal recognition of nagari as a customary-based local governance unit. Law No. 6 of 2014 on Villages acknowledges the rights of indigenous communities and their traditions (Kadaryanto & Kurniawan, 2025). In addition, West Sumatra Provincial Regulation No. 7 of 2018 on Nagari explicitly restores the term "village" to "nagari" and positions customary institutions as important actors in local governance. In the context of Social Forestry, institutions such as the Nagari Customary Council (Kerapatan Adat Nagari, KAN), the Nagari Forest Management Institution (Lembaga Pengelola Hutan Nagari, LPHN), nagari governments, and Forest Management Units (Kesatuan Pengelolaan Hutan, KPH) become central actors in connecting state-based forest governance with customary-based resource management (PemprovSumbar, 2018).

Although the expansion of Social Forestry areas indicates significant policy progress, formal access alone does not guarantee effective and sustainable forest management. In West Sumatra, the area designated for Social Forestry has reached 357,977.29 hectares, much of which is located within customary territories claimed by nagari. At the national level, Social Forestry has also shown substantial growth, with a total designated area of 15,970,388.62 hectares and 20,310 approval decrees issued (*Statistik Perhutanan Sosial*, 2025). Nevertheless, several studies have emphasized that the major challenge of Social Forestry lies in the post-establishment phase, when communities are expected to manage forest areas after permits are granted (Kumar et al., 2007; Massiri et al., 2024; Sambodo et al., 2025). Previous studies have shown that many Social Forestry schemes become ineffective after legal access is obtained because policy approaches often place excessive emphasis on legal-formal procedures and quantitative targets, while overlooking socio-institutional complexities (Budi et al., 2021; Rahayu et al., 2023; Suhardjito & Wulandari, 2019).

This condition reveals an important research gap. Existing studies on Social Forestry in Indonesia have widely discussed access, legality, policy implementation, and area expansion. However, relatively limited attention has been given to how post-access governance operates in customary-based settings, particularly how collaboration among LPHN, KAN, KPH, nagari governments, and supporting actors develops after Social Forestry permits are obtained. In West Sumatra, the success or failure of Social Forestry is strongly shaped by the quality of collaboration, negotiation, mutual recognition, and institutional adaptation among these actors. Therefore, Social Forestry in this region can be understood as an arena where state policy and customary systems intersect, requiring a collaborative model that is sensitive to local institutions and local wisdom (Asmin et al., 2019; Lawasi et al., 2024).

This study aims to analyze the collaborative model of Social Forestry management based on customary institutions and local wisdom in West Sumatra, with particular attention to the factors that determine the success and failure of collaboration in the post-access phase. Theoretically, this study contributes to the development of collaborative governance studies by showing how formal state-based governance can be adapted, negotiated, and indigenized through customary institutions, nagari-based legitimacy, and local wisdom. Practically, this study provides insights for strengthening the role of LPHN, KAN, nagari governments, KPH, and supporting organizations in building more adaptive, accountable, and sustainable Social Forestry governance. Thus, this study is expected to contribute not only to the academic discussion on collaborative governance, but also to the practical improvement of Social Forestry management in customary-based communities.

Literature Review and Research Focus

Collaborative Governance in Public Resource Management

Collaborative governance has become an important analytical framework for understanding the management of complex public problems involving multiple actors, institutions, interests, and forms of authority. In natural resource governance, public institutions rarely operate alone. They are required to interact with local communities, customary institutions, civil society organizations, and other supporting actors in order to formulate, implement, and sustain public policies. This condition is highly relevant to Social Forestry, where forest governance is no longer understood merely as a state administrative function, but as a collective process involving negotiation, role-sharing, mutual accountability, and joint learning among stakeholders.

This study adopts the collaborative governance framework developed by Ansell and Gash (2008) as the main analytical foundation. Ansell and Gash define collaborative governance as a governance arrangement in which one or more public agencies directly engage non-state stakeholders in a formal, consensus-oriented, and deliberative decision-making process to create or implement public policy or manage public programs and assets. This definition is relevant to the context of Social Forestry in West Sumatra, where the Forest Management Unit (Kesatuan Pengelolaan Hutan, KPH) as a state apparatus interacts with the Nagari Forest Management Institution (Lembaga Pengelola Hutan Nagari, LPHN), the Nagari Customary Council (Kerapatan Adat Nagari, KAN), nagari governments, NGOs, and local communities in managing forest areas that are administratively recognized by the state but socio-culturally embedded in customary territories.

The Ansell and Gash model identifies several interrelated dimensions that shape the dynamics of collaboration, namely starting conditions, institutional design, facilitative leadership, and collaborative processes. Starting conditions refer to the initial configuration of power, resources, trust, conflict history, and incentives among actors. Institutional design concerns the formal and informal rules that structure collaboration, including inclusiveness, transparency, basic agreements, and procedural legitimacy. Facilitative leadership refers to the role of leaders or mediators who are able to build trust, bridge interests, and maintain productive dialogue. Collaborative process refers to the iterative interaction among actors through trust-building, commitment to process, shared understanding, and interim outcomes. These dimensions provide an analytical roadmap for examining why collaboration in some nagari develops effectively, while in others it becomes stagnant or fails.

Collaborative Governance in Social Forestry

Social Forestry in Indonesia represents a fundamental shift in forest governance from a state-centered model toward a more community-based and participatory approach. The policy is intended to redistribute access and control over forest resources, strengthen local welfare, and support ecological sustainability (Fisher et al., 2019; Safitri, 2022). As a welfare-oriented policy, Social Forestry is expected to promote sustainable local economic development, reduce poverty, and strengthen the resilience of forest village communities (Hidayat et al., 2024; Ramadhan et al., 2025; Santika et al., 2019). At the same time, ecological sustainability is expected to emerge

when communities have legal certainty and long-term interests in forest management, thereby encouraging responsible management practices (Poudel et al., 2025).

However, previous studies show that the success of Social Forestry cannot be measured only from the number of permits issued or the extent of areas designated. Several studies emphasize that the major challenge lies in the post-establishment or post-access phase, when communities are expected to manage forest areas after formal permits have been granted (Kumar et al., 2007; Massiri et al., 2024; Sambodo et al., 2025). Many Social Forestry schemes become ineffective after legal access is obtained because policy implementation often places excessive emphasis on legal-formal procedures and quantitative targets, while overlooking socio-institutional complexities at the local level (Budi et al., 2021; Rahayu et al., 2023; Suhardjito & Wulandari, 2019).

The sustainability of Social Forestry is therefore determined by a set of interrelated factors, including effective area management, conflict resolution mechanisms, market access, adaptive capacity, institutional capacity, and stakeholder collaboration (Duncker et al., 2012; Ghanbari et al., 2014; Ros-Tonen & Derkyi, 2018). These dimensions require an integrated approach that incorporates local institutions, informal networks, policy support, and capacity-building efforts. In this context, collaboration is not a temporary arrangement, but a continuous governance process involving negotiation, role adjustment, mutual accountability, and shared learning at the site level (Dharmawan et al., 2021). Effective collaboration also requires trust-building and leadership capable of moderating power imbalances among actors (Coleman & Stern, 2018; Mwangi & Wardell, 2012; Sinha & Suar, 2005).

Customary Institutions and Local Wisdom in Social Forestry Governance

The implementation of Social Forestry in West Sumatra has a distinctive socio-cultural context because it intersects with strong customary institutions and Minangkabau customary law. In this region, forest areas are not only viewed as administrative objects of state policy, but also as part of customary territories that are socially and culturally connected to nagari communities. Customary land represents a longstanding system of territorial control and resource management that predates the emergence of the modern state (Nuar & Lunkapis, 2019; Syafiq et al., 2015). This creates a situation of tenure dualism, in which the state claims certain areas as state forests, while indigenous communities regard them as high inheritance that cannot be alienated (Yasmi et al., 2010).

This context makes Social Forestry in West Sumatra a process of negotiation between state policy and customary governance. The implementation of Social Forestry must engage with customary law, local wisdom, and the institutional structure of nagari. Legal recognition of indigenous communities and local governance is supported by Law No. 6 of 2014 on Villages, which acknowledges the rights of indigenous communities and their traditions (Kadaryanto & Kurniawan, 2025). At the provincial level, West Sumatra Provincial Regulation No. 7 of 2018 on Nagari restores the term village to nagari and positions nagari-based institutions as central actors in local governance, including natural resource management (PemprovSumbar, 2018).

In the context of Social Forestry, institutions such as KAN, LPHN, nagari governments, KPH, and supporting organizations become key actors in bridging formal state-based governance and customary-based resource management. The success of Social Forestry in West Sumatra depends not only on compliance with bureaucratic procedures, but also on the quality of collaboration, negotiation, recognition, and institutional adaptation among these actors. Therefore, Social Forestry in this region can be understood as a form of institutional syncretism, in which state policy and customary systems meet, interact, and are rearticulated through local principles.

Analytical Focus of the Study

Based on the literature above, this study positions collaborative governance as the main analytical framework for examining Social Forestry management based on customary institutions and local wisdom in West Sumatra. The focus is directed toward the post-access phase, namely the stage after Social Forestry permits have been granted and local actors are required to manage forest areas collectively. This focus is important because previous studies

have shown that formal access does not automatically produce effective, accountable, and sustainable forest governance.

The analysis in this study is guided by four dimensions of collaborative governance. First, starting conditions are used to examine the initial configuration of trust, conflict history, power relations, resources, and incentives among KPH, LPHN, KAN, nagari governments, NGOs, and local communities. Second, institutional design is used to analyze how formal and customary rules shape inclusiveness, transparency, role division, and legitimacy in Social Forestry management. Third, facilitative leadership is used to examine the role of internal and external actors in building trust, mediating interests, and maintaining the continuity of collaboration. Fourth, collaborative process is used to analyze how trust-building, commitment, shared understanding, and interim outcomes develop across different nagari contexts.

Through this framework, the study seeks to explain why collaboration in some nagari can develop into an adaptive and productive governance model, while in others it becomes weak, stagnant, or fails to generate sustainable outcomes. The use of collaborative governance theory is therefore not only intended to describe actor interaction, but also to identify the factors that determine the success and failure of customary and local wisdom-based Social Forestry management in West Sumatra. RQ: How does collaborative governance operate in customary and local wisdom-based Social Forestry management in West Sumatra, and what factors determine its success or failure in the post-access phase?

Method

This study employed a qualitative approach with a multi-case study design. This design was selected to obtain an in-depth understanding of the dynamics of collaborative Social Forestry management based on customary institutions and local wisdom in West Sumatra. A multi-case study design was considered appropriate because this research compares several nagari with different patterns of collaboration, institutional capacity, and stakeholder support. Through this design, the study was able to identify similarities, differences, and recurring patterns that explain the success and failure of collaboration in Social Forestry management. The study was conducted in four nagari in West Sumatra, namely Nagari Paru in Sijunjung Regency, Nagari Pasia Laweh in Agam Regency, Nagari Sirukam in Solok Regency, and Nagari Halaban in Lima Puluh Kota Regency. These four nagari were selected because they represent variations in the success and failure of collaboration, the capacity of the Nagari Forest Management Institution (Lembaga Pengelola Hutan Nagari, LPHN), and the level of support from external actors. Thus, the selection of cases was not intended to represent all Social Forestry areas statistically, but to provide analytical variation for understanding how collaborative governance operates in different local contexts.

The object of this study is the collaborative governance process in Social Forestry management based on customary institutions and local wisdom. The subjects of the study consisted of actors directly involved in Social Forestry governance at the nagari level. The informants included nagari government representatives, LPHN administrators, forestry extension officers, and community members involved in or affected by Social Forestry management. Informants were selected using a combination of purposive sampling and snowball sampling. Purposive sampling was used to identify key actors who had direct knowledge and involvement in Social Forestry management, while snowball sampling was used to identify additional informants recommended by previous informants because of their relevance to the research focus. In this qualitative study, variables were not measured statistically, and no hypothesis testing was conducted. Instead, the study operationalized the concept of collaborative governance through four analytical dimensions derived from Ansell and Gash's collaborative governance framework. The first dimension is starting conditions, which refers to the initial configuration of trust, conflict history, power relations, resources, and incentives among actors. The second dimension is institutional design, which refers to the formal and informal rules, role division, transparency, inclusiveness, and legitimacy of collaborative arrangements. The third dimension is facilitative leadership, which refers to the role of actors who build trust, mediate interests, and maintain the continuity of collaboration. The fourth dimension is collaborative

process, which refers to trust-building, commitment to process, shared understanding, and interim outcomes that emerge during Social Forestry management.

Data were collected through semi-structured interviews and documentation studies. Semi-structured interviews were conducted to explore the experiences, perceptions, roles, and interactions of actors involved in Social Forestry management. The interview process was guided by a semi-structured interview guide developed based on the four dimensions of collaborative governance. Documentation studies were conducted by examining relevant documents, including Social Forestry permits, nagari regulations, institutional documents, activity reports, meeting records, and other documents related to Social Forestry management. A documentation checklist was used to ensure that the collected documents were relevant to the research focus and analytical dimensions. The data analysis was conducted thematically. Interview data were transcribed and coded based on the themes of collaborative governance, namely starting conditions, institutional design, facilitative leadership, and collaborative process. The coding process was carried out to identify key statements, patterns of actor relations, forms of collaboration, institutional constraints, and factors contributing to the success or failure of Social Forestry management. After the within-case analysis was completed for each nagari, a cross-case analysis was conducted by comparing the findings from Nagari Paru, Nagari Pasia Laweh, Nagari Sirukam, and Nagari Halaban. This comparison was used to identify recurring patterns, differences, and explanatory factors related to collaborative success and failure across the four cases.

Result and Discussion

Overview of the Context of Collaboration in the Four Study Villages

This study was conducted in four nagari located in four districts in West Sumatra, namely Nagari Paru in Sijunjung District, Nagari Pasia Laweh in Agam District, Nagari Sirukam in Solok District, and Nagari Halaban in Lima Puluh Kota District. The four nagari represent different socio-cultural, ecological, and institutional contexts. Pasia Laweh and Halaban are located in the Luhak region, while Sirukam and Paru are located in the Rantau region. All four nagari have obtained formal recognition under the social forestry scheme, particularly through the nagari forest scheme. This formal recognition marks the beginning of collaboration between state institutions, local government, customary institutions, forest management bodies, and community groups.

The granting of social forestry permits did not automatically produce effective collaborative governance. After the administrative process was completed, each nagari followed a different path. This difference shows that the effectiveness of social forestry management depends not only on legal access, but also on local institutional capacity, facilitative leadership, customary legitimacy, transparency, and the ability of actors to maintain a continuous collaborative process.

Nagari Pasia Laweh had practiced community-based forest management before the national social forestry program was formally implemented. The community had strong social capital, a tradition of deliberation, and customary leadership that supported forest protection. The formation of LPHN Pasia Laweh gained legitimacy from KAN and the nagari government. The collaboration was also strengthened by support from forestry extension workers, KPHL Agam Raya, and NGOs. In this case, social forestry did not begin as a purely administrative project. It grew from pre-existing local practices and was later strengthened through formal recognition.

Nagari Sirukam also shows a strong collaborative foundation. The community views the forest as pusako, or inherited collective property, which protects water sources, ecological balance, and cultural values. The social forestry permit process was preceded by participatory mapping and intensive local discussion. The relationship between LPHN and KPH developed in a relatively synergistic way. KPH acted as a technical facilitator, while local actors maintained customary legitimacy. Forest management in Sirukam focused on protection, ecological sustainability, and the utilization of non-timber forest products.

Nagari Halaban presents a different pattern. The nagari faced ecological pressure due to illegal logging and forest degradation. This condition encouraged local actors to establish institutions for forest protection. However, internal institutional capacity was not fully strong. Collaboration in Halaban became effective because of the presence of an external facilitator,

especially KKI Warsi, which supported institutional strengthening, technical assistance, and network building. In this case, external facilitation played a strategic role in activating the collaborative process.

Nagari Paru shows a contrasting case. Although Paru had obtained a formal village forest permit, the management process did not work effectively. The area faced strong pressure from illegal gold mining activities, internal conflict, elite domination, and weak institutional accountability. LPHN was formed mainly to fulfill administrative requirements, but it lacked operational capacity, social legitimacy, and transparency. The support of KPH and other external actors was also limited and discontinuous. As a result, the collaborative process did not develop into a productive governance cycle.

These four cases show a spectrum of collaborative capacity. Pasia Laweh and Sirukam represent strong collaboration based on social capital, customary legitimacy, and local leadership. Halaban represents collaboration supported by external facilitation. Paru represents stagnation and collaborative failure. This variation confirms that social forestry management in customary areas requires more than formal permits. It requires an adaptive institutional arrangement that connects state procedures with local socio-cultural systems.

Table 1. Thematic Matrix of Research Findings

Main Theme	Thematic Codes	Coding Results	Data Sources	Meaning of Findings
Starting conditions	Historical relations, conflict, social capital, resource imbalance, actor incentives	Illegal gold mining conflict, illegal logging history, low community trust, relationship between KAN and nagari government, economic interests of actors	Interviews, observation, permit documents, nagari documents	Initial conditions shape the direction of collaboration. Nagari with strong social capital can develop cooperation more easily, while nagari with conflict and conflicting interests tend to experience stagnation.
Facilitative leadership	Mediation, deliberation, consensus, role of wali nagari, role of ninik mamak, role of NGOs	Customary deliberation, mediation by ninik mamak, wali nagari as a connector, NGO facilitation	Interviews with key actors, forum observation, activity documents	Facilitative leadership opens dialogue, mediates conflict, builds trust, and maintains collective commitment.
Institutional design	Role of KAN, LPHN, nagari government, KPH, local rules, transparency, inclusiveness	KAN involvement in decision-making, LPHN authority, KPH support, nagari rules, institutional task division, multi-actor forum	Institutional documents, permit documents, interviews	Collaboration works better when institutional design has dual legitimacy. It must be recognized by the state and accepted by customary communities.
Collaborative process	Trust building, commitment, shared understanding, intermediate outcomes, collective action	Building trust, commitment to forest protection, shared understanding of forest as pusako, joint patrols, nurseries, monitoring agreements	Interviews, activity observation, activity documents	Collaboration develops when trust, commitment, shared understanding, and intermediate outcomes reinforce one another. When transparency and commitment are weak, collaboration moves into a negative cycle.

Source: researcher data processing results, 2025.

Table 2. Comparative Findings across Nagari

Nagari	Starting Conditions	Leadership	Institutional Design	Collaborative Process	Collaboration Outcome
Pasia Laweh	Strong social capital and long experience in community-based forest management	Ninik mamak and wali nagari played active roles	KAN, LPHN, nagari government, KPH, and NGOs supported one another	Deliberation worked, trust grew, and collective commitment was formed	Effective and adaptive collaboration
Sirukam	Strong customary attachment to forest as pusako	Customary and local leadership had social legitimacy	LPHN and KPH worked synergistically	Participation and shared understanding developed through mapping and forest protection	Effective collaboration based on strong customary values
Halaban	Ecological pressure and forest degradation created the need for collaboration	Internal leadership was still limited, but external facilitation was strong	Institutional design developed through NGO and nagari government support	Collaboration worked through assistance, capacity building, and restoration activities	Moderately effective collaboration, but still dependent on external facilitation
Paru	Conflict of interests, illegal gold mining pressure, and low trust	Facilitative leadership was weak	LPHN tended to be administrative, elitist, and less accountable	Transparency was low, commitment was weak, and consensus was not formed	Stagnant and failed collaboration

Source: researcher data processing results, 2025.

Collaboration Roadmap Based on the Ansell and Gash Model

The findings of this study are consistent with the collaborative governance model developed by Ansell and Gash. The model explains that collaboration is shaped by starting conditions, institutional design, facilitative leadership, and collaborative process. In the context of social forestry in West Sumatra, these four elements do not work in isolation. They interact with customary structures, nagari governance, and local wisdom.

Starting Conditions: Different Foundations, Different Collaboration Paths

Starting conditions became a decisive factor in shaping the direction of collaboration in the four nagari. The findings show that three elements were particularly influential: power and resource asymmetry, history of relationships among actors, and incentives to participate. In Pasia Laweh and Sirukam, the balance between customary legitimacy and technical support created a strong basis for collaboration. The relationship between customary institutions, LPHN, nagari government, and KPH was supported by shared interests in forest protection. The existence of social capital, trust, and previous collective experience helped actors build a collaborative process more easily.

Halaban had relatively good initial conditions, although its internal capacity was still limited. The main challenge was ecological degradation and the need for restoration. The presence of KKI Warsi helped overcome technical and institutional limitations. This shows that weak initial capacity can still be improved when external support works in a facilitative and sustained manner. Paru had the most problematic starting conditions. Collaboration was constrained by illegal gold mining, internal conflict, weak trust, and competing economic interests. These conditions created a negative starting point. Rather than building mutual trust, actors became trapped in suspicion, low accountability, and fragmented interests. This confirms

that starting conditions are not merely background factors. They strongly determine whether collaboration moves toward a constructive or destructive path.

Facilitative Leadership: Mediation, Trust, and Commitment

Facilitative leadership played a key role in maintaining the continuity of collaboration. In collaborative governance, leadership is needed not only to direct action, but also to build trust, mediate conflict, and ensure that actors remain involved in a deliberative process.

In Pasia Laweh and Sirukam, facilitative leadership was rooted in local legitimacy. Ninik mamak, wali nagari, and customary leaders were able to connect formal administrative procedures with customary deliberation. Their authority helped reduce conflict, build consensus, and maintain community support. Leadership in these two nagari did not rely only on formal office. It also relied on social trust and customary recognition.

In Halaban, facilitative leadership was strongly supported by external actors. KKI Warsi played a role as facilitator, mediator, and capacity builder. This role was important because internal leadership was not yet sufficient to manage the complexity of forest restoration and multi-actor collaboration. However, external facilitation became effective because it strengthened local actors rather than replacing them. In Paru, facilitative leadership was weak. Communication tended to be one-way and administrative. Deliberative spaces were limited. Conflict was not properly mediated, and trust did not grow. This condition weakened commitment and stopped the collaborative cycle. The Paru case shows that the absence of facilitative leadership can turn formal institutions into ineffective administrative structures.

Collaborative Institutional Design: Between Formal Structure and Customary Flexibility

Institutional design functions as the architecture of collaboration. In social forestry, institutional design must regulate who is involved, how decisions are made, how responsibilities are divided, and how transparency is ensured. In West Sumatra, institutional design must also bridge the formal logic of the state and the customary logic of nagari society. In Pasia Laweh and Sirukam, institutional design was adaptive because it connected LPHN, KAN, nagari government, KPH, and community groups. KAN provided customary legitimacy, while LPHN carried out formal management functions. KPH provided technical support. This division of roles allowed collaboration to work through a hybrid institutional arrangement. The formal permit was not treated only as a bureaucratic document. It was translated into local deliberative mechanisms.

Halaban also developed a relatively adaptive institutional design. External facilitation helped integrate local government, customary actors, community groups, and technical agencies into a multi-stakeholder framework. This design was important because the nagari faced ecological pressure and needed coordinated action for forest restoration. In Paru, institutional design was less inclusive. LPHN membership was dominated by nagari officials and actors close to local power holders. This created an elitist and bureaucratic structure. Community participation became weak, and the institution lost social legitimacy. The Paru case shows that formal institutional formation does not guarantee collaborative governance. Institutions must be inclusive, transparent, and socially recognized.

Collaborative Process: Virtuous and Vicious Cycles

The collaborative process is the core of collaborative governance. It consists of face-to-face dialogue, trust building, commitment to process, shared understanding, and intermediate outcomes. These elements can create a positive cycle when they reinforce one another. They can also create a negative cycle when transparency, trust, and commitment are absent. In Pasia Laweh, Sirukam, and Halaban, the collaborative process developed positively. Trust grew through repeated interaction, deliberation, technical assistance, and concrete activities. Actors gradually developed a shared understanding that social forestry was not only a state program, but also a way to strengthen customary sovereignty, protect ecological resources, and support community welfare. Intermediate outcomes, such as nagari rules, monitoring agreements, joint patrols, nurseries, and forest protection activities, strengthened actors' confidence in the collaboration.

In Paru, the collaborative process entered a negative cycle. Weak transparency, low accountability, unresolved conflict, and pressure from illegal gold mining produced distrust.

Actors did not develop a shared understanding of the purpose of social forestry. The absence of concrete intermediate outcomes further weakened commitment. This case shows that collaboration can fail not only because institutions are weak, but also because the process does not produce trust and tangible results.

Typology of Collaborative Models

Based on the comparative analysis, this study identifies two collaborative models and one pattern of collaborative failure.

1. Autonomous-Adaptive Collaboration Model

The autonomous-adaptive collaboration model appears in Pasia Laweh and Sirukam. This model is characterized by strong customary institutions, legitimate internal leadership, and a hybrid institutional design that integrates formal social forestry procedures with customary deliberation. In this model, local wisdom does not merely function as a cultural background. It becomes an operational mechanism for building consensus, regulating roles, and strengthening collective commitment. This model works when LPHN has local legitimacy, KAN supports decision-making, the nagari government provides administrative backing, and KPH offers technical support. Collaboration is relatively autonomous because local actors can manage the process from within. It is adaptive because formal procedures are translated into local norms and deliberative practices.

2. External Facilitative Collaboration Model

The external facilitative collaboration model appears in Halaban. This model is characterized by the strategic role of external facilitators in assisting local actors. External actors help translate formal regulations, strengthen institutional capacity, build networks, and open access to technical knowledge. This model becomes important in nagari where internal capacity is still developing. The effectiveness of this model depends on the ability of external facilitators to strengthen local capacity rather than create dependency. In Halaban, facilitation worked because it supported local actors and helped them organize restoration activities and institutional coordination.

Pattern of Collaborative Failure

The pattern of collaborative failure appears in Paru. Failure occurs when LPHN is weak in capacity, low in accountability, and lacks social legitimacy. This condition is worsened by elite domination, conflict of interests, illegal gold mining, one-way communication, and limited external support. As a result, the collaboration fails to create trust, commitment, shared understanding, and intermediate outcomes. The Paru case shows that social forestry permits can become ineffective when they are not followed by institutional strengthening, conflict mediation, transparency, and participatory governance. In this situation, formal legality does not produce collaborative capacity.

Local Wisdom as a Collaborative Governance Mechanism

One of the main findings of this study is that local wisdom does not only function as a cultural context. It also works as a governance mechanism. In successful nagari, customary values shape how actors deliberate, solve conflict, make collective decisions, and maintain forest protection commitments. Customary principles such as *bulek kato dek mufakat* function as deliberative instruments. They encourage dialogue, consensus, and collective responsibility. The philosophy of *alam takambang jadi guru* supports adaptive learning from ecological conditions and local experience. The view of forest as *pusako* strengthens the moral basis for forest protection and intergenerational responsibility.

In Pasia Laweh and Sirukam, these values were integrated into institutional practice. Customary legitimacy strengthened formal legality. State procedures provided administrative recognition, while *adat* provided social acceptance. This combination produced a hybrid and adaptive institutional design. In contrast, when formal institutions were disconnected from customary legitimacy, as seen in Paru, collaboration lost its social base. The institution existed formally, but it did not function as a trusted arena for collective decision-making. This shows that collaborative governance in customary areas must be rooted in local legitimacy.

Theoretical and Practical Implications

Theoretically, this study confirms the relevance of the Ansell and Gash collaborative governance framework in analyzing social forestry management. However, the findings also show that the framework must be contextualized in customary societies. Starting conditions, facilitative leadership, institutional design, and collaborative process remain important, but their concrete forms are shaped by local institutions, customary authority, and socio-cultural legitimacy.

In the context of West Sumatra, collaborative governance cannot be separated from nagari, KAN, ninik mamak, LPHN, and local wisdom. The theory therefore undergoes contextual adaptation. Universal elements of collaborative governance are brought to life through local mechanisms.

Practically, this study shows that social forestry policy should avoid a uniform approach. Each nagari has different social capital, institutional capacity, conflict intensity, ecological challenges, and facilitation needs. Nagari with strong local capacity should be given greater space for autonomous management. Nagari with moderate capacity should receive technical and institutional assistance. Nagari with high conflict should first receive trust-building intervention, conflict mediation, institutional audit, and transparency reform.

illegal gold mining-related conflict, transparency reform, and the creation of small but concrete intermediate outcomes. These outcomes may include routine meetings, joint monitoring agreements, community patrols, or simple restoration activities that can rebuild trust.

Research Limitations

This study is limited to four nagari in West Sumatra. Therefore, the findings are not intended to be generalized to all social forestry areas in Indonesia. However, the multi-case design provides an in-depth understanding of how collaborative governance works in customary-based social forestry. Future studies may expand the number of cases, compare nagari with different ecological characteristics, or examine the relationship between the quality of collaboration and measurable outcomes such as community income, forest cover, conflict reduction, and institutional sustainability.

Synthesis of Findings

The comparative analysis shows that the success of customary-based social forestry does not depend only on the establishment of forest management areas or the issuance of permits. It depends on the interaction between local institutional capacity, facilitative leadership, inclusive institutional design, trust-building processes, and the operational use of local wisdom.

Pasia Laweh and Sirukam show that collaboration becomes stronger when local institutions have legitimacy and are able to adapt formal rules into customary mechanisms. Halaban shows that external facilitation can strengthen collaboration when local capacity is still limited. Paru shows that collaboration fails when institutions are elitist, accountability is weak, conflict is unmanaged, and trust is absent.

Thus, the central finding of this study is that LPHN is the collaborative axis of social forestry management, but it cannot work alone. Its effectiveness depends on the support of KAN, nagari government, KPH, NGOs, and community groups. Local wisdom becomes the social mechanism that connects these actors, while formal policy provides legal recognition. Sustainable social forestry in West Sumatra therefore requires a hybrid collaborative model that combines state legality, customary legitimacy, facilitative leadership, and continuous multi-actor learning.

Conclusion

This study concludes that collaborative governance in customary and local wisdom-based Social Forestry management in West Sumatra operates through the interaction of starting conditions, facilitative leadership, institutional design, and collaborative process. The four nagari show different collaboration patterns. Pasia Laweh and Sirukam represent effective collaboration because they have strong customary legitimacy, social capital, local leadership, and adaptive institutional arrangements. Halaban shows moderately effective collaboration because external facilitation strengthens local capacity and supports restoration activities. Paru shows

collaborative failure because of weak institutional accountability, elite domination, illegal gold mining pressure, low trust, and limited facilitative leadership.

The main finding of this study shows that formal Social Forestry permits do not automatically create effective forest governance. The success of Social Forestry depends on the ability of local actors to translate state legality into customary legitimacy and collective action. LPHN functions as the main collaborative axis, but it cannot work independently. Its effectiveness depends on support from KAN, nagari governments, KPH, NGOs, and community groups. Local wisdom also plays an important role as a governance mechanism. Values such as deliberation, consensus, forest as pusako, and collective responsibility help actors build trust, solve conflict, and maintain forest protection commitments.

The practical implication of this study is that Social Forestry policy in customary areas should not use a uniform approach. Nagari with strong local capacity should receive wider space for autonomous management. Nagari with moderate capacity should receive institutional strengthening, technical assistance, and network support. Nagari with high conflict should first receive conflict mediation, institutional audit, transparency reform, and trust-building intervention. Policy actors should strengthen LPHN capacity, clarify role division among institutions, improve transparency, and integrate customary deliberation into formal Social Forestry management. KPH and NGOs should also act as facilitators that strengthen local actors, not as substitutes for local institutions.

This study has several limitations. First, the study was limited to four nagari in West Sumatra, namely Pasia Laweh, Sirukam, Halaban, and Paru. Therefore, the findings cannot be generalized statistically to all Social Forestry areas in Indonesia. Second, this study focused on the governance process in the post-access phase and did not measure quantitative outcomes such as household income, forest cover change, biodiversity condition, or conflict intensity. Third, this study relied mainly on interviews and document analysis, so it did not conduct long-term observation of institutional change over time.

Based on these limitations, future research should expand the number of study sites and compare Social Forestry practices across different ecological, cultural, and institutional contexts. Further studies should also examine the relationship between collaborative governance quality and measurable outcomes, such as community welfare, forest conservation, conflict reduction, and institutional sustainability. Longitudinal research is also needed to understand how collaboration changes after facilitation ends and whether local institutions can maintain collective forest management independently. Future research may also develop a comparative model between customary-based Social Forestry in West Sumatra and other indigenous forest governance systems in Indonesia.

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