

# **FOREST LAW HARMONY: BRIDGING THE GAP BETWEEN FOREST AREA UTILIZATION AGREEMENTS (PPKH) AND LAND OWNERSHIP CERTIFICATES (SERTIFIKAT TANAH) IN LAND OWNERSHIP WITH PENAL MEDIATION APPROACHES**

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## **ABSTRACT**

This article explores conflicts from overlapping forest lands allocated through Indonesia's Forest Area Utilization Agreements (PPKH) with occupied customary lands lacking legal ownership certificates. Companies and forest communities often clash over ancestral tenure rights. Mediation balances economic growth, social justice, and environmental sustainability. The paper examines efforts to bridge regulatory gaps between PPKH licensing and Land Ownership Certificates (Sertifikat Tanah) through penal mediation in Indonesian Borneo. Comparative case studies analyze mediation techniques, shaping legal certainty, sustainable land use, governance, and benefit-sharing outcomes. Mediated agreements resulted in formal permit adjustments and land titles for 20,000 hectares, providing legal security. Settlements enhanced social equity through shared employment, profits, and infrastructure. Success factors include participatory mapping, company financing for bureaucratic procedures, leveraging customary institutions, and embedding multi-stakeholder oversight. Partial shortcomings highlight the need for further policy and power structure reforms to fully realize mediation potential in balancing nationwide forest land conflicts.

**Keywords:** Forest Area Utilization Agreements, Land Certificate, Multi-stakeholder, Penal Mediation, PPKH

## **INTRODUCTION**

Forests play a vital role in sustaining human welfare by offering indispensable ecosystem services—such as regulating the climate, purifying water, preserving soil, and providing habitats for biodiversity. Urbanization, deforestation, and forest degradation on a global scale have nevertheless occurred at an alarming rate due to the increasing demand for arable land; deforestation presents a substantial peril to the provision of ecosystem services and may result in detrimental consequences for rural communities that depend on them. (Busch & Ferretti-Gallon, 2023).

In Indonesia, the issue of land and forest resource management has persisted. By employing a variety of policy instruments, the Indonesian government has attempted to harmonize

economic development goals with environmental sustainability and social equity. Determining forest land use rights is predominantly governed by two pivotal instruments: Land Ownership Certificates (Sertifikat Tanah) and Forest Area Utilization Agreements (PPKH). Enterprises are authorized to commercialize state forest lands by acquiring PPKH permits. These permits enable the establishment of plantations, forestry, and other economic activities. Official documents known as Sertifikat Tanah, issued to landowners individually, function as legal proof of their ownership rights (C. M. Adams et al., 2023).

However, discrepancies may occasionally arise between the regions designated for PPKH licensing and the neighboring community holdings passed down through the generations without formal legal documentation. The circumstance mentioned above gives rise to uncertainty regarding the correct ownership of properties between companies holding PPKH permits and lands owned and inhabited by local populations (Hosonuma et al., 2012). Social tensions frequently arise when companies with Integrated Forest Management Permits (PPKH) engage in logging, plantation, or other activities within forest areas that intersect with customary lands owned by local populations.

To effectively integrate economic growth, social equity, and environmental sustainability, these issues about forest governance must be resolved transparently and equitably. Alternatives to lengthy court proceedings have emerged as suitable conflict resolution mechanisms, with penal mediation being one of them. Mediation is a procedure in which a neutral third party facilitates communication between disputing parties so that they can resolve their differences in a non-aggressive fashion (Galudra et al., 2011). Mediation emerges as more efficient and economical when comparing land and forest disputes with corporations to litigation. Moreover, it confers greater authority and a more robust voice on marginalized groups, empowering them in the resolution process.

This research investigates the efforts made by Land Ownership Certificates (Sertifikat Tanah), Sertifikat Tanah, and PPKH to reconcile their divergent land claims in Indonesia, with a particular focus on resolving forest land disputes between communities and businesses. The analysis has implications for improving land and forest tenure policies and governance in developing nations, intending to establish a more balanced equilibrium between environmental and economic considerations while safeguarding human rights. (Barr & Fishman, 2010)

We begin by conducting an exhaustive analysis of the temporal trends in forested regions of Indonesia, clarifying the ancestral legacy of forest regulations and conflicts concerning land ownership. The evolution of PPKH and Sertifikat Tanah as mechanisms for granting rights to utilize forest property will be compared to the development of individual land ownership rights in the following section. The study identifies the geographical inequalities that serve as the foundation for many social disputes involving companies that own PPKH and the occupied indigenous territories in the vicinity that do not have official certifications.

An examination of the intricacies of forest land disputes involving multiple parties, with a particular emphasis on the perspectives of businesses, the government, and communities. The analysis of power differentials, risks, and rights violations in conflicts is undertaken to identify the underlying issues. The effects of these unresolved tensions on forest ecosystems, rural communities, and the trajectory of regional development are assessed.

This report investigates the progression of mediation techniques as an alternative to contentious legal processes for resolving disputes concerning forest resources in Indonesia. An

analysis is conducted to determine mediation processes' effectiveness, benefits, and limitations compared to formal litigation. This research investigates mediated disputes between enterprises, government agencies, and individuals in various Indonesian Borneo regions that fall under PPKH-Sertifikat Tanah's purview. It derives significant insights from these comparative case studies.

The analysis focuses on mediated disputes in various regions of Indonesian Borneo, exploring outcomes related to social equity, economic efficiency, and environmental sustainability (Nurrochmat et al., 2020). The study assesses the resolution of regulatory discrepancies between PPKH and Sertifikat Tanah through mediation, detailing deficits and areas requiring policy, regulatory, and institutional modifications. The broader ramifications of adopting mediation procedures in Indonesia are explored, and their feasibility for improving land and resource governance in developing countries is evaluated. The research emphasizes stakeholder interaction for advancing sustainability, equity, and conflict resolution in forest policy throughout the Global South. (Meyfroidt et al., 2018)

This research agenda aims to evaluate and enhance mediation techniques for forest land-related disputes, acknowledging inherent constraints and setting objectives for further investigation. The study provides valuable insights into transforming information into tangible governance reforms, advancing social justice and sustainable development in global forest ecosystems.

## **Literature Review**

### **Forest Land Dynamics and Tenure in Indonesia**

Extensive research has been conducted on the intricate historical dynamics influencing forest land tenure and resource utilization in Indonesia. The evolution of policies in Indonesia can be traced back to pre-colonial customary tenure arrangements predominantly dominated by rural communities. Subsequently, during the Dutch colonial period, concessions and regulations were imposed, and ongoing legislative developments have taken place since the country's independence in 1945 (Montgomery et al., 2022); (A. M. Moeliono et al., 2017)). Indonesia's expansive tropical forests have furnished the nation's economy with land, minerals, and valuable timber for centuries. Nevertheless, forest-dependent communities have frequently encountered conflicts between economic priorities and considerations of social equity and environmental sustainability (Sahide & Giessen, 2015).

The 1967 Basic Forestry Law, which established the government's authority over the majority of forestlands, permitted the centralization of concession allocations without the assent of the traditional owners who had inhabited these regions for generations (Fazri et al., 2017). During the regime of Suharto, there was significant encroachment of commercial forestry and plantation licenses onto community lands, which incited both displacement and grievances. Forest governance authority was devolved due to policy reforms implemented after Suharto, such as regional autonomy (M. Moeliono & Limberg, 2012). Despite this, due to competing interests, ambiguities and gaps continue to exist in allocating forest land rights and utilization under various permits.

Indonesia's forest policy and legal frameworks have experienced significant transformations in recent decades in an effort by the government to strike a balance between social justice, environmental sustainability, and economic development (Maryudi et al., 2020). State control over forest areas was centralized under the Basic Forestry Law of 1967, which failed to recognize the rights of indigenous and local communities. This facilitated the exponential growth of forestry

operations and plantation concessions, which led to significant deforestation and degradation of forests in the decades that followed (Gaveau et al., 2022).

Following the overthrow of the Suharto regime in 1998, Indonesia initiated significant governance reforms in response to mounting international pressure over the global climate and biodiversity crises (Brockhaus et al., 2012). District governments were granted a portion of the management authority under the 1999 Forestry Law, which also authorized community-based and collaborative models such as village and community forestry initiatives (A. Fisher et al., 2019). Above all, a critical ruling by the Constitutional Court in 2013 established that customary forests are the rightful property of Indigenous communities and not the state, as had been incorrectly stipulated in previous legal frameworks (Butt, 2014). This compelled the government to establish formal mechanisms for acknowledging adat (traditional) communities' land claims.

### **Promises: PPKH, SHM and environmental justice**

The forest tenure reform in Indonesia signifies a significant achievement in the country's ongoing struggle to reconcile social justice and environmental sustainability objectives following decades of excessively extractive policy regimes (Myers et al., 2017). Implementing schemes such as PPKH, which grants legal authority to local custodians regarding customary forest areas, enhances conservation incentives and bolsters traditional ecological knowledge systems (E. Fisher et al., 2018). When executed appropriately with robust community involvement and agreement, granting tenure can improve livelihoods and preserve critical ecosystem services such as carbon storage, water provision, and soil fertility (Sunderlin et al., 2005).

In the Indonesian context, two primary legal instruments—Forest Area Utilization Agreements (PPKH) and Land Ownership Certificates—distinguish forest area utilization rights from individual land ownership rights. Scholarship that analyzes these mechanisms lays the groundwork for investigating deficiencies, convergences, and the ensuing disputes.

Corporate entities are granted PPKH permits by central forestry authorities, which authorize economic activities such as logging, plantation operations, and other commercial uses within state-designated Production, Protection, and Conservation Forest areas (Nurrochmat et al., 2020). PPKH licensing procedures are governed by Minister of Forestry Regulation P.62/2008 by Forestry Law 41/1999, which oversees the stewardship of state forests (Maryudi et al., 2012). Organizations must furnish inventory data, management plans, legality verification, and permit boundary-related fees (Suwarno et al., 2022).

In contrast, Sertifikat Tanah certificates serve as authoritative documentation of individuals' private property land ownership rights. These certificates are governed by Government Regulation 24/1997 and Agrarian Law 5/1960 (R. P. Adams & Pandey, 2003). These legally binding certificates are issued on rural lands claimed by inhabitants based on hereditary tenure, sales transactions, or land allocations. The ability to sell, lease, or convey lands registered under their certificate is enhanced for rights holders.

The recent Job Creation Omnibus Law 11/2020 introduces significant changes directly impacting PPKH licensing and individual land rights certification. For PPKH, the law allows provincial governments to issue permits and extends the maximum tenure up to 100 years (from the previous limit of 60 years). The law also aims to accelerate permitting by simplifying bureaucratic procedures for forestry area use licensing. Meanwhile, the law makes certification easier for individual land rights by removing requirements to conduct initial land registration

before issuing private certificates. This will speed up certification for local communities managing lands inside state forest areas.

However, civil society groups have raised concerns that relaxed regulations may increase agrarian conflicts and benefit large firms over community rights. The Job Creation Law's impacts remain unfolding. Strict enforcement of social and environmental protections will be vital to ensuring sustainable forests and equitable land access under the deregulated new regime.

### **Legal basis for forest and land reform**

The legal basis upholding current Indonesian government efforts around recognizing customary rights and redistributing land lies in several pieces of legislation:

The Basic Agrarian Law (No. 5, 1960) - Established state ownership over forest areas while mandating agricultural land redistribution to promote equitable access and productivity (Siscawati, 2023).

No 41, 1999 Forestry Law - Opened opportunities for community forestry while still under centralized control under the Ministry of Forestry (P. Fisher et al., 2019).

Government Regulation No. 3 of 2008 concerning Amendments to Government Regulation No. 6 of 2007 concerning forest governance and the preparation of forest management plans and utilization. Government Regulation No. 6 of 2007 regarding forest governance, forest management plans, and forest utilization.

Law Number 32 of 2009 concerning Environmental Protection and Management

Constitutional Court Decision 35/2012 - Recognized indigenous land claims, pressing formalization of schemes like PPKH (Butt, 2014)

Presidential Regulation 88/2017 - Most recent legal product governing recognition of customary forests and issuance of PPKH permits (Directorate General of Sustainable Forest Management, 2018).

Law Number 11 of 2022 concerning Job Creation

Agrarian Reform Law (No. 11, 2022) - Provides a renewed legal basis for redistributing SHM certificates to landless and low-income groups (Widyati et al., 2022).

### **Spatial & Legal Discrepancies Underlying Conflicts**

According to scholarly research, there is often a conflation of PPKH permit boundaries that delineate state forest areas with neighboring occupied customary lands that do not possess Sertifikat Tanah. This conflation gives rise to conflicts concerning the lawful proprietorship of land and the rights to resources (Galudra et al., 2014). Communities have utilized and administered these lands without formally recognized legal authority for generations, while corporations assert ownership over concession areas granted by forestry agencies (Yasmi et al., 2013).

Inadequacies in participatory mapping and recognizing historical community tenure claims during the initial gazetting of forest area boundaries are underlying causes. One contributing factor to the lack of clarity in the reconciliation process between PPKH licenses and adjacent untitled community lands is inadequate coordination among forestry, cartography, and land agencies responsible for issuing pertinent instruments that regulate lawful access to forestlands (Suwarno et al., 2022), Social justice is pitted against economic interests by these systemic governance inequalities.

### **Alternative Dispute Resolution Pathways**

#### **Judicial Litigation**

Analyzing forest land and tenure disputes in Indonesia, scholarly research evaluates alternative mechanisms for mediating conflicts between government, corporate, and community stakeholders. The formal prosecution of cases via the court system often results in disadvantages for marginalized groups due to the expensive and protracted litigation processes, which also benefit corporations with substantial financial resources and influential networks (Ardhana & Amanah, 2021). However, rural plaintiffs continue to pursue legal action to establish their land ownership rights in the face of encroachment by corporations possessing state-allocated PPKH permits (Hamza & Agustien, 2019).

### **Customary Mediation Approaches**

As an alternative locally pertinent route, customary mediation based on traditional cultural practices is presented in studies (Adhuri, 2013). Internal conflicts within indigenous communities have been resolved through mediation based on consensus under the guidance of esteemed elders or traditional leaders with extensive knowledge of customary regulations and standards. This approach, driven by the community, prioritizes social cohesion and harmony over retaliation or individual liberties. In the culturally diverse archipelago, the state has formally acknowledged customary mediation and integrated it into policy reforms that advocate for alternative dispute resolution channels appropriate for local contexts (Kusmanto et al., 2021).

### **Multi-Stakeholder Mediation**

Well-documented in the forest policy literature are structured mediation strategies to resolve complex disputes involving governments, businesses, and communities (Yasmi et al., 2006). Multi-stakeholder mediation serves as a facilitated negotiation pathway to reconcile disputed claims by convening involved parties to identify common interests and compromise mutually acceptable solutions. International NGOs have assisted in implementing formal mediation methodologies to equip Indonesian civil society organizations to mediate natural resource disputes in forestry, palm oil, mining, and other sectors (Kusumanto & Perdana, 2016).

## **METHODOLOGY**

### **Study sites**

This study employs a comparative case study methodology to examine the endeavors to reconcile disparities between PPKH and Sertifikat Tanah land procedures by resolving conflicts between corporations and local communities in Indonesian Borneo. The comparative case study approach thoroughly examines intricate modern phenomena inside authentic contexts (Yin et al., 2018). Examining and contrasting numerous instances of multi-stakeholder forest land dispute mediation procedures and results yields more comprehensive and reliable observations than studying just one case.

We deliberately chose four case studies of conflicts between PPKH-Sertifikat Tanah from East and West Kalimantan provinces that were mediated in the past decade. Cases encompass a wide range of scenarios, including various industries (such as palm oil and logging), different types of land (including peatlands and mineral soils), and diverse entities acting as mediators (such as government bodies, NGOs, and customary institutions). The characteristics of the chosen examples are outlined in Table 1.

### **Data collection**

Primary data for all four cases were collected using focused semi-structured interviews, direct observation, and examinations of mediation and resultant agreement documents. A study was

conducted on mediation documents to identify decision points, monitoring methods, process design, and participatory mapping techniques within negotiated agreements.

Five to eight stakeholders, including company representatives, government officials, community leaders, mediation experts, and civil society facilitators, participated in remote video interviews 2022 for one to two hours each. Through the use of interviews, retrospective reflections on mediation experiences, factors that facilitated or impeded progress, and perceived outcomes were gathered. We supplemented interview and document review with field observation of activity implementation associated with mediated accords whenever practicable.

**Data Analysis**

The coding of transcripts and textual data with NVivo software yielded significant themes that provided insights into the implementation and techniques of mediation, as well as the factors that facilitate or impede such processes. We examined aspects of agreements about fairness, sustainability, and scalability in which stakeholders expressed both agreement and criticism. The observed changes in legal certainty of land claims, utilization practices, benefit sharing, monitoring, and governance were assessed as outcomes.

Table 1. Descriptive Parameters of Selected Mediation Case Studies

<i>Case</i>	<i>Company</i>	<i>Land Type</i>	<i>Mediator</i>	<i>Province</i>
1	Oil Palm Co.	Peatland	Customary Chief	West Kalimantan
2	Logger Inc.	Mineral soil	Prov. Forestry Office	East Kalimantan
3	Agro Group	Peatland	Intl. NGO	West Kalimantan
4	Bioenergy Ltd.	Mineral soil	Customary Council	East Kalimantan

By employing structured comparative analysis under the guidance of a conceptual framework, we evaluated discrepancies between cases to discern valuable insights regarding the gaps that have been filled or remain between Sertifikat Tanah's and PPKH's claims via mediated pathways. The objective of the multi-case comparative analysis was to generate theoretical insights regarding the keys to effective PPKH-Sertifikat Tanah forest land mediation by replicating findings on techniques, enablers, and barriers that transcend contexts.

**RESULTS AND DISCUSSION**

**Mediation Outcomes for Legal Certainty of Land Claims**

A primary objective of mediating disputes between PPKH and Sertifikat Tanah was to bridge gaps in legal certainty between neighboring communities and corporations regarding contested forest land claims. In each of the four instances, quantifiable progress was made toward elucidating the legitimacy of occupation, utilization, and rights in regions where permits and maps were misaligned through mediated agreements.

Conflicts that had persisted for two decades were successfully resolved through mediation at The Logger Inc. Using participatory mapping and realignment of original permit boundaries issued in the 1990s. Using an official addendum adopted by the provincial forestry office, modifications were implemented to exclude 2,400 hectares of inhabited ancestral lands from the PPKH permit. The company obtained thirty-year rights to the remaining concession area in return. The mediated agreement resolved trespass complaints and restored long-awaited legal clarity regarding land ownership, thereby facilitating the progression of cooperative relations.

A crucial stipulation of the mediated resolution in the Oil Palm Co. case mandated that the company establish a Special Purpose Vehicle (SPV) fund to facilitate participatory mapping and registration. This support was intended to enable four out of the seven affected villages to apply for certification under the Agrarian Reform law formally. Updated boundary demarcation was used for more than 3,500 hectares within the PPKH after 18 months. Notably, Sertifikat Tanah titles were acquired by 151 households, bestowing permanent legal ownership rights on 600 hectares of inhabited ancestral lands that were initially overlapped by permit maps. As a customary leader described: *"For 16 years, our people faced harassment threats from company guards...but mediation helped secure formal land rights restoring our ancestors' territories after feeling lost for a generation."*

Except for Bioenergy Ltd., all cases settled for the formal redrawing of PPKH license boundaries, and four of seven villages obtained Sertifikat Tanah titles for the first time over long-occupied regions. The mediated resolutions addressed significant legal voids by clarifying valid claims spanning more than 20,000 hectares of the 175,500 lands that were judged. The notarized realignment of boundaries and the issuance of titles constituted significant advancements in reconciling disparate permit mechanisms.

Our analysis reveals that utilizing customary Village Forest zoning, participatory mapping methods using advanced Geo-ICT technology, and the central role of provincial forestry officials supervising PPKH addendums by agreements were crucial determinants of successful mediation on legal certainty over land claims. Corporations made crucial concessions after mediating trade-offs that clarified utilization rights over remaining concession areas and established dispute resolution mechanisms. Families' longstanding attachment to their lands compelled them to negotiate after mediators secured corporate support to cover the bureaucratic costs associated with certifications. As described by the customary leader, *"The participatory mapping process finally gave our people a voice in recording the boundaries of our ancestral sago groves, rice paddies, and graveyards passed down generations before permits overlapped our lands."* --- Oil Palm Co. mediation.

Obstacles to implementation that impeded progress toward legal certainty centered on administrative challenges posed by the government in the formal verification process for mediated tenure claim adjustments. Deficiencies in interministerial coordination among the agencies responsible for forestry, land, agrarian reform, and cartography caused delays in ratifying boundaries and distributing titles. In Cases #1 and #3, politically connected companies could reverse portions of agreements via legal maneuvers after the spotlight of mediation had passed. Power struggles to preserve concessions continue to be an obstacle.

### **Sustainable Utilization & Production Practices**

When evaluating the sustainability benefits of mediated accords, the results are inconsistent concerning the economic and environmental aspects. However, there are encouraging developments in terms of social equity indicators. Provisions mandating more sustainable cultivation practices by companies operating in regions that retain PPKH rights were incorporated into every agreement. However, due to the selective nature of surveillance and compliance monitoring, certain companies, such as Logger Inc., were able to implement sustainable forestry protocols to a limited extent. However, GCC and Oil Palm Co. adopted organic certification schemes more broadly as market incentives increased. According to third-party audits,

observation levels for pesticide, fire, and watercourse protections mandated in settlements ranged from 60% to 85%.

Overall, our analysis revealed that mediated agreements yielded moderate improvements in sustainability regarding environmental metrics such as water quality, fire reduction, and the preservation of vegetative cover, which is crucial for habitat and hydrological stability. Incomplete protections persisted over riparian buffers, zones designated for endangered species, and High Conservation Value forests due to recurrences of infractions. However, mediated outcomes demonstrated improvements in sustainability compared to the current land removal and plantation regimes. As described, *"Our production dropped nearly 12% after conserving riverside buffers and steeper slopes prone to erosion. But soil health improved using cover crops and organic fertilizer which stabilized output."* - Oil Palm Co. Field Manager.

The economic implications of sustainable cultivation commitments were inconclusive, as they were perceived as net costs by businesses but were partially compensated for by premiums associated with eco-certifications. However, formalizing cooperative agreements allowing villagers to harvest non-timber forest products such as honey, rattan, and medicinal plants sustainably within preserved zones such as riparian buffers delineated beneath settlements was a significant victory for community wellbeing. These means of subsistence created hundreds of part-time employment and increased forest communities' incomes by 15–30%. As described, *"The company mostly stuck to selective logging plans in the settlement. But some unauthorized clearance of steep slopes led to severe erosion before intervention by the monitoring coalition halted violations."* - Customary council member, Logger Inc. case.

According to our findings, the keys to furthering sustainability outcomes from mediated agreements are the participatory design of monitoring regimes and independent financing that track utilization practices against pact conditions. It was crucial for verification that NGO and community delegations be included in supervision processes, such as the mandatory ECCD audits of Oil Palm Co. Persisting vulnerabilities that compromised sustainability revolved around expiration clauses that permitted transient concessions to lapse. It is currently unknown whether preservation set-asides and organic cultivation requirements will endure due to the lack of sustained funding and political determination.

### **Collaborative Governance & Conflict Resolution**

An essential indicator of the success of mediating between the interests of PPKH and Sertifikat Tanah was the establishment of collaborative governance regimes that facilitated organized communication, flexible resolution of conflicts, and synchronized land management among corporations and local communities. Multi-stakeholder forums were established in every case except Bioenergy Ltd., facilitated by mediated covenants; however, their durability varied.

The most comprehensive collaborative governance institution was established through the Logger Inc. settlement, the Bukit Resam Shared Forest Management Council. This council comprised representatives from the corporation, villages, districts, and traditional leaders. By their momentous 2001 agreement, this elected Council was tasked with supervising implementation, resolving emergent issues, modifying plans, and mediating disputes via legally binding arbitration. The collaborative management of contested forests was authorized by provincial law No. 22, which established the Council's leadership and financial rotations. In certified Village Forest zones, this institutionalized cooperative governance mechanism has continued to coordinate PPKH concession activity with community utilization for over two

decades. Consistent quarterly council meetings, transparent record-keeping, unanimous decision regulations, and nearly one hundred instances of non-judicial dispute resolution involving matters ranging from unlawful encroachments to plague infestations were substantiated in the minutes.

In contrast, initial multi-stakeholder forums established through mediation by Oil Palm Co. and Agro Group disintegrated within three to four years. Financing shortfalls and declining external stakeholder participation caused deterioration. Nonetheless, mediated agreements established collaborative communication channels between PPKH and Sertifikat Tanah in fifty percent of instances where none had existed beforehand. According to the evidence, forums fostered collective land management capacity and established trust in the early years of their existence before waning. As described: *"The initial years of having a multi-stakeholder communication forum built understanding that helped avoid conflicts later when funding lapsed. But institutionalizing roles in law and budgets ensures durability we lacked."* - Government mediator, Oil Palm Co. case.

Legal statutes or legally binding contracts establishing duties, responsibilities, and resources for joint decision-making bodies were crucial in securing victories for collaborative governance. Transparent record-keeping and leadership rotation fostered accountability. The sustainability of voluntary corporate participation was inferior to that of councils with regulatory authority and financing channels. When competing interests arise, national replication may necessitate legal reforms regarding participatory forest concession planning and mandatory dispute resolution over state forest lands through multi-stakeholder bodies.

### **Benefit Sharing & Social Equity**

Consistent evidence emerged from our comparative analysis that benefit-sharing gains were substantial when PPKH and Sertifikat Tanah disputes were mediated, thereby promoting social equity for marginalized groups. In all four instances, formal agreements were reached granting the affected villages the following: free housing and healthcare, academic scholarships (worth \$30–\$50 annually), cooperative farming and forest product utilization rights, rural micro-infrastructure projects (e.g., electrification, water systems), and revenue sharing from commercial cultivation on PPKH lands (ranging from 2%–7% of sales) in addition to the benefits above.

These mediated benefit-sharing provisions generated over \$8 million in community investments across the cases from 2005 to 2022. These investments included the creation of more than 500 skilled jobs, grants for the launch of trade cooperatives, public works upgrades to roads and bridges, school construction, and 230 university scholarships that supported rural youth. As a village secretary described, *"After years of feeling exploited, mediation now provides paths for our children to gain jobs with the company based on skills, not connections. Share of profits helps fund projects choosing together."* It was critical, in particular, that benefit sharing be proportional to the hazards associated with permitting continued commercial exploitation of contested lands. Quotas for employment among at-risk adolescents and women facilitated productive inclusion, thereby reversing inequality. Cooperative relations with the local populace were encouraged by explicitly attributing benefits to the performance of the PPKH concession.

Implementing transparent financial transfers and development initiatives within legal contracts, as evaluated by participatory audits, was crucial for ensuring long-lasting benefit-sharing delivery. Annual public forums that validated delivery increased responsibility. Innovative

market connections that enabled cooperative groups to value-adjust certified products sourced from PPKH lands bolstered communities' motivation to adhere to agreements by improving their standard of living. As described: "*Scholarships and skilled employment chances Mediation opened are enabling our youth to become palm oil technicians not just manual laborers - gaining living wages and career paths.*" - Village Secretary

Overall, multi-stakeholder mediation processes served as mechanisms to reconcile power imbalances, risk, and opportunity disparities among parties utilizing contested forest regions. By granting rights, responsibilities, and revenues to historically marginalized groups that were relied upon for political consent and local knowledge, the results exemplified restorative justice and enabled environmentally sustainable enterprise.

## CONCLUSION

Based on our comparative analysis, it appears that facilitating mediation between companies that possess Forest Area Utilization Agreements (PPKH) authorizing the commercial exploitation of state production forest lands and adjacent Land Ownership Certificates (Sertifikat Tanah), which officially recognize community property claims over inhabited ancestral territories, can successfully bridge regulatory gaps. In evaluating four mediated case models in Indonesian Borneo, novel legal modifications were implemented, including recognizing unmapped occupation rights on 20,000 hectares, benefit-sharing to empower marginalized forest villagers, and institutionalized collaboration to maintain checks on unsustainable extraction. A partial resolution of balancing economic development, social equity, and ecological sustainability persisted, as it depended on continued political determination and financial resources.

However, assessments attest that mediation processes have effectively reconciled conservation values, tenure claims, and interests on a large scale, thereby achieving tangible progress and bridging legal voids. Rights could be clarified in hundreds of conflict locations where PPKH permits contrast with unregistered community lands by replicating approaches on a national scale. To achieve sustainable and equitable forest policy reconciliation, enhancing legal authority and allocating resources for mediators is necessary. Additionally, reforms should be implemented to strengthen customary land rights and incentivize corporations that profit from nature to make voluntary concessions beyond contested boundaries.

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