

Carbon Rights Disputes and Indigenous Peoples: An Interest Theory Analysis of the Moi Community and PT Perkasa Bumi Hijau Unit

Laila Himmatul Fajriyah

Master of Law Program, Faculty of Law, Universitas Gadjah Mada

correspondence: lailahimmatulfajriyah@mail.ugm.ac.id

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ABSTRACT

The development of carbon markets has transformed forest ecosystem services into economically tradable assets, while raising legal uncertainty over carbon rights in areas overlapping with customary territories. This study examines normative conflicts and competing interests arising from the proposed carbon-trading activities involving PT Perkasa Bumi Hijau Unit I and the Moi Indigenous People in the Salawati Islands, and formulates an equitable dispute-resolution framework. Employing normative legal research, the study applies statutory, case, conceptual, and analytical approaches to relevant constitutional provisions, judicial decisions, investment regulations, carbon-governance rules, scholarly literature, institutional reports, and advocacy documents. The findings show that carbon-rights disputes cannot be understood merely as licensing conflicts, as they involve the interaction between state authority, investment certainty, customary rights, participatory rights, and the distribution of economic benefits. Using Roscoe Pound's Interest Theory, this study proposes a fair carbon governance model comprising recognition of Indigenous Peoples as principal rights-holders, meaningful FPIC/PADI, transparent benefit sharing, participatory zoning, and an independent grievance mechanism. Its novelty lies in integrating Interest Theory with carbon-rights governance to link legal status, consent, and distributive justice in resolving disputes involving customary territories.



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INTRODUCTION

The natural world encompasses abiotic and biotic life as well as a wide range of natural phenomena (Ridlo, 2022). Nature provides the basic resources required for human survival, and human life remains fundamentally dependent on natural systems. Over time, however, the relationship between humans and nature has increasingly deteriorated, contributing to various environmental disasters (Romario et al., 2024). Forests constitute one of the most important natural resources for human societies. They support livelihoods, conserve biodiversity, regulate water availability, and contribute to global climate stability. Consequently, forest degradation generates serious environmental consequences, including the intensification of climate change.

Climate change has prompted states to rely not only on conventional regulatory instruments but also on economic instruments that assign a monetary value to emission reductions. In Indonesia, this development entered a new phase following the issuance of Presidential Regulation Number 110 of 2025 concerning the Implementation of Carbon Economic Value Instruments and the Control of National Greenhouse Gas Emissions. This regulation replaced Presidential Regulation Number 98 of 2021 and restructured carbon trading, results-based payments, carbon levies, and other instruments as components of the Carbon Economic Value (Nilai Ekonomi Karbon/NEK) governance framework. In the forestry sector, the regulatory framework was subsequently updated through Minister of Forestry Regulation Number 6 of 2026 concerning Procedures for Carbon Trading through Greenhouse Gas Emission Offsets in the Forestry Sector. These regulatory changes demonstrate that Indonesia's carbon market has moved beyond a purely conceptual stage and has developed into a legal regime that requires certainty regarding regulatory authority, carbon units, registration, transactions, social safeguards, and the relationship between carbon projects and rights over the land and forest areas in which carbon benefits are generated.

Conceptually, carbon markets enable units representing emission reductions or removals to

acquire economic value and to be traded through legally prescribed mechanisms. However, the economic value of carbon does not arise in a legal vacuum. In the forestry sector, carbon units depend on ecosystems, forest cover, land governance, and conservation practices that may in fact be located within territories long controlled by Indigenous Peoples. The legal issue therefore shifts from the technical question of how much emissions can be reduced to a series of normative questions: who holds legally protected interests in carbon; who has authority to provide consent; who bears the burden of restrictions on land use; and how should economic benefits be distributed? Recent literature indicates that carbon trading in customary forests can generate both economic and ecological benefits, but it may also produce exclusion where recognition of rights, participation, and benefit-sharing mechanisms are not designed equitably (Amin et al., 2024; Rangkuti et al., 2024; Lobubun, 2024).

These issues are reflected in the proposed use of forest areas for carbon-trading activities involving PT Perkasa Bumi Hijau Unit I and the Moi Indigenous People in the Salawati Islands, Raja Ampat Regency and Sorong Regency, Southwest Papua Province. Publicly available information forming the basis of this case study indicates that a public consultation was held on 9 November 2023 concerning an application for a technical recommendation for a multi-business Forest Utilization Business License (Perizinan Berusaha Pemanfaatan Hutan/PBPH) for carbon trading over an area of approximately 69,768 hectares. Several Moi Indigenous leaders expressed opposition due to concerns regarding control over the area and the long-term continuity of customary territorial rights (Moifilit, 2023). Accordingly, this case is more appropriately understood as a legal and interest-based conflict arising at the planning and licensing stage of carbon-related forest utilization, rather than as an established carbon project that has already obtained all required permits and commenced carbon transactions. This distinction is essential to ensure that the legal analysis does not exceed the facts supported by the available sources.

Previous studies have examined several dimensions of this issue. Amin et al. (2024) highlight incoherence in carbon-trading governance and the distribution of benefits to Indigenous Peoples; Rangkuti et al. (2024) discuss the potential for human-rights violations in carbon trading involving customary forests; Lobubun (2024) emphasizes legal protection and benefit sharing for customary forest rights-holders; while Hidayah (2026) develops the concept of economic-rights justice for Indigenous Peoples in forestry-sector carbon trading. More recent studies also demonstrate the need to strengthen Free, Prior and Informed Consent (FPIC/Persetujuan Atas Dasar Informasi Awal Tanpa Paksaan/PADI) when resource-use decisions directly affect Indigenous Peoples (Salsabilla et al., 2025), while problems concerning recognition of rights and Indigenous participation remain central to REDD+ implementation in Southeast Asia (Nugraha et al., 2026).

Unlike those studies, this research does not merely assess whether Indigenous Peoples are formally protected under carbon-market regulation. Its scientific contribution lies in three areas. First, it examines carbon-related conflict through the case of the Moi Indigenous People while clearly distinguishing administrative licensing status, customary rights, and claims to carbon-related benefits. Second, Roscoe Pound's Interest Theory is operationalized as an analytical tool for mapping the state's public interest, the business actor's individual interest, and the Indigenous community's social interest, and for evaluating how law should balance these interests. Third, the study formulates a carbon-dispute resolution model that integrates five elements that are often discussed separately: recognition of rights-holders, FPIC/PADI, benefit sharing, participatory zoning, and grievance mechanisms. Under this configuration, the novelty of the study does not rest merely on the limited scholarly attention previously given to the Moi case, but on the development of an Interest Theory-based fair carbon governance model that may be applied to assess comparable carbon disputes in other customary territories.

RESEARCH METHOD

This study employs normative legal research, treating legal norms, principles, doctrines, and judicial decisions as the principal materials for evaluating the structure of rights and obligations within carbon governance. The study is prescriptive-analytical in nature: it does not stop at describing the conflict, but evaluates consistency among legal norms and formulates a legal construction for dispute resolution. Four approaches are applied in an integrated manner. First, the statute approach is used to examine the 1945 Constitution of the Republic of Indonesia, legislation concerning forestry, investment, Indigenous Peoples, and the Carbon Economic Value regime, including the transition from

Presidential Regulation Number 98 of 2021 to Presidential Regulation Number 110 of 2025 and the latest sectoral forestry regulation. Second, the case approach is used to reconstruct the legal facts of the conflict between the Moi Indigenous People and PT Perkasa Bumi Hijau Unit I on the basis of verifiable public documents and information, while Constitutional Court Decision Number 35/PUU-X/2012 is used as constitutional jurisprudence concerning the legal status of customary forests. Third, the conceptual approach is employed to examine carbon rights, intangible property, FPIC/PADI, benefit sharing, green enclosure, and Roscoe Pound's Interest Theory. Fourth, the analytical approach is used to assess the relationship between administrative permits, customary rights, participatory rights, and the economic benefits of carbon.

The legal materials consist of primary, secondary, and tertiary sources. Primary legal materials include Article 18B(2), Article 28I(3), and Article 33 of the 1945 Constitution of the Republic of Indonesia; Constitutional Court Decision Number 35/PUU-X/2012; Law Number 25 of 2007 on Investment together with its relevant amendments; Presidential Regulation Number 110 of 2025; Minister of Environment and Forestry Regulation Number 21 of 2022 insofar as it remains relevant and is not inconsistent with the newer regulatory framework; and Minister of Forestry Regulation Number 6 of 2026. Secondary legal materials comprise scholarly journal articles, books, reports issued by international institutions, and studies published by civil-society organizations, with priority given to publications from 2017-2026 so that the analysis reflects recent developments in carbon markets and Indigenous Peoples' rights. Earlier sources are retained only on a limited basis where they are foundational, such as Roscoe Pound's writings or constitutional decisions that continue to serve as normative references. Tertiary legal materials, including dictionaries and glossaries, are used to clarify terminology.

The Moi case was selected purposively because it satisfies three analytical criteria: (1) there is an intersection between an agenda for forest utilization through carbon trading and territory claimed or controlled under customary tenure; (2) there are documented expressions of objection by Indigenous community members, enabling analysis of consent and legitimacy; and (3) the case arises within the rapidly changing Indonesian carbon-regulation context, making it relevant for examining the gap between administrative legality and socio-constitutional legitimacy. This study does not claim to conduct empirical field verification. Accordingly, the factual account is limited to information contained in publicly available documents, and every conclusion concerning licensing status or the conduct of the parties is formulated cautiously and does not extend beyond the available sources.

Legal materials were collected through library research and documentary study using techniques of inventory, classification, and issue mapping. The materials were analyzed qualitatively through four stages: identifying relevant legal norms; conducting vertical and horizontal synchronization to identify normative antinomies; applying grammatical, systematic, and teleological interpretation; and developing a prescriptive legal construction through Interest Theory. The validity of the legal argument is strengthened through triangulation of legal sources by comparing official regulations, judicial decisions, scholarly literature, and factual sources relating to the case, while maintaining a clear distinction among fact, interpretation, and normative recommendation

RESULTS AND DISCUSSION

Carbon Rights as a Legal Object and the Transformation of the Carbon Economic Value Regime

Developments in environmental law and property law demonstrate a shift in economically valuable objects from tangible property toward ecosystem services and emission-reduction units. In carbon trading, the object of transaction is not directly the tree or the land, but rather a unit representing verified emission reductions or removals that satisfy specified methodological, registration, and verification requirements. Accordingly, characterizing carbon merely as an 'intangible object' does not resolve the legal issue. The central legal question concerns the relationship between carbon units and rights over land and forests, the authority of resource managers, conservation activities that generate emission reductions, and the consent of affected parties. Scholarship on carbon rights indicates that rights to carbon benefits are not always identical to land ownership rights, but neither can they be detached from tenure rights and governance arrangements over the territory in which carbon-sequestration services are generated (Heyward, 2023; Lobubun, 2024).

Under Indonesian positive law, this framework must now be read primarily through Presidential Regulation Number 110 of 2025 rather than Presidential Regulation Number 98 of 2021. Presidential Regulation 110/2025 revoked Presidential Regulation 98/2021 and reorganized the Carbon Economic Value instruments, while Minister of Forestry Regulation Number 6 of 2026 governs carbon trading through greenhouse-gas emission offsets in the forestry sector. This transition has both methodological and substantive implications: analysis of a dispute that emerged in 2023 should refer to Presidential Regulation 98/2021 to explain the historical regulatory context in which the conflict arose, whereas prescriptive analysis concerning future governance and dispute resolution must rely on the legal framework in force in 2026. This approach avoids regulatory anachronism and makes the transition between legal regimes explicit.

Uncertainty regarding who is entitled to the economic benefits of carbon remains a critical issue where potential carbon areas overlap with customary territories. Customary rights contain territorial, social, cultural, and intergenerational dimensions, whereas carbon units are designed to be registered and transferred through market systems. If these two regimes are connected solely through administrative licensing granted to business entities, there is a risk that economic benefits will become concentrated in actors possessing licensing and financial capacity, while communities that have maintained forest cover bear restrictions on access. Conversely, equating customary tenure automatically with a legal entitlement to issue and trade carbon units would also be overly simplistic, because carbon units remain subject to requirements concerning methodology, registration, additionality, permanence, and verification. A more appropriate legal construction is therefore to understand carbon rights as a bundle of rights and interests requiring regulation of the relationship among territorial control, management authority, consent rights, benefit entitlements, and obligations to maintain environmental integrity.

Anatomy of the Moi Conflict: Administrative Legality, Customary Rights, and Social Legitimacy

The Moi case demonstrates that a carbon dispute may arise even before any carbon-credit transaction takes place. Based on publicly available sources, the controversy emerged during public consultation and the application for a technical recommendation relating to a multi-business forestry PBPH for carbon trading covering approximately 69,768 hectares in the Salawati Islands (Moifilit, 2023). This fact shifts the analytical focus: the legal confrontation is not between a 'final carbon permit' and 'customary rights', but rather concerns a process of constructing administrative legality that may affect Indigenous Peoples' living space. At this stage, law should operate preventively to ensure that the licensing process does not generate disputes that are addressed only after investment has been committed and restrictions on the area have already been imposed.

From the perspective of the business actor, the relevant interests include certainty in the licensing process, investment security, and the possibility of obtaining economic benefits from forestry activities that satisfy carbon-trading requirements. The Investment Law provides a framework for protection and legal certainty for investors, but Article 25 of Law Number 25 of 2007 does not confer a substantive right to control carbon; it principally regulates the obligation of investment companies to obtain business licenses from the competent authorities. Administrative permits, therefore, do not constitute an unlimited source of authority. Their legality remains dependent upon compliance with sectoral, environmental, forestry, community-rights, and constitutional requirements. Investment certainty must consequently be distinguished from a claim of ownership over all ecological benefits generated within the area subject to the application.

From the perspective of the Moi Indigenous People, the interest at stake is not limited to a right to compensation. Article 18B(2) and Article 28I(3) of the 1945 Constitution of the Republic of Indonesia provide a constitutional basis for recognizing Indigenous Peoples and their cultural identities, while Constitutional Court Decision Number 35/PUU-X/2012 removes customary forests from the category of state forests. Consequently, where customary territory intersects with a proposed carbon-related forest utilization plan, Indigenous Peoples must be treated as legal subjects holding interests in territory, traditional access, governance authority, cultural identity, and economic benefits—not merely as groups to be informed through consultation. Recent literature emphasizes that delays in the formal recognition of customary territories may generate serious inequality where

business licensing proceeds more rapidly than recognition of communal rights (Rangkuti et al., 2024).

From the state's perspective, two functions may come into tension. The state has an interest in meeting its Nationally Determined Contribution (NDC), safeguarding environmental integrity, and developing a credible carbon market; at the same time, it has a constitutional obligation to respect Indigenous Peoples and to ensure that natural resources are managed for the greatest prosperity of the people as required by Article 33 of the 1945 Constitution. Accordingly, the state's role cannot be confined to issuing permits and registering carbon units. It must guarantee fair procedures, ensure that conservation burdens are not transferred to communities without proportionate benefits, and provide corrective mechanisms where licensing processes disregard participatory rights.

Table 1. Normative Tensions

Legal Parameter	Legal Position/Interest of PT Perkasa Bumi Hijau Unit I	Legal Position/Interest of the Moi Indigenous People
Positive Legal Basis	Business/forestry licensing and investment framework; an application for a multi-business PBPH for carbon trading must comply with all applicable sectoral requirements	Article 18B(2) of the 1945 Constitution of the Republic of Indonesia and Constitutional Court Decision Number 35/PUU-X/2012
Object of Rights	Interest in obtaining legal authorization to utilize the area and derive economic benefits from carbon; this does not automatically constitute proof of carbon ownership	Customary rights and communal control over customary forests
Nature of Control	Contractual, time-limited, market-oriented	Intergenerational, historical, socio-religious, sustainable
Normative/Interest Position	Administrative law, forestry law, investment law, and Carbon Economic Value regulation	Constitutional law, Indigenous Peoples' rights, customary law, and participatory rights
Normative Position	State administrative law and investment law	Constitutional law, human rights law, and customary law

The table demonstrates that the principal issue is not a simple conflict between investment law and customary law, but the potential for legal disharmony where administrative permits are processed before the status and participation of customary rights-holders have been resolved. Within the legal hierarchy, permits constitute administrative decisions or actions that must comply with statutes and the Constitution. Business legality therefore cannot be invoked to negate the constitutional rights of Indigenous Peoples. Conversely, protection of customary rights must also be translated into operational administrative mechanisms rather than remaining merely an abstract recognition. FPIC/PADI is relevant at this point as a bridge between substantive recognition and licensing procedures: consent should be obtained before decisions producing significant impacts are taken, without coercion, on the basis of adequate information, and through legitimate community representation (Salsabilla et al., 2025).

The legal implications may be classified into three categories. First, defects in participation may undermine the legitimacy of licensing decisions where affected communities are not provided with information, opportunities for internal deliberation, or the ability to accept or reject a proposal in accordance with their customary decision-making mechanisms. Second, restrictions on traditional access arising from carbon projects should be assessed under the principle of proportionality: whether the restriction is genuinely necessary to maintain carbon integrity, whether less restrictive alternatives are available, and whether fair compensation or benefits are provided. Third, uncertainty in benefit distribution may transform conservation into a redistribution of economic value from forest stewards to capital- and license-holders. Carbon-rights conflict is therefore fundamentally a dispute concerning

the allocation of authority, burdens, and benefits.

Opposition expressed by several Moi Indigenous leaders reflects concerns over loss of control over customary territory and the long-term consequences of concessions or carbon-related area utilization (Moifilit, 2023). The relevant legal risk is not that every conservation restriction has necessarily already occurred in this case, but that carbon-project design may generate green enclosure if MRV standards and carbon-stock protection are translated into top-down spatial restrictions without consent and agreed access arrangements. Literature concerning carbon markets and Indigenous Peoples identifies similar patterns of risk: limited recognition of tenure, unequal technical capacity, uncertainty concerning carbon rights, and weak benefit-sharing arrangements may place communities in a weaker bargaining position (Rangkuti et al., 2024; Hidayah, 2026). Accordingly, the concept of green enclosure is used in this study as a normative risk to be prevented, rather than as an empirical fact assumed to have fully materialized in Salawati.

Interest Theory as a Framework for Reconciling Carbon Conflicts

Roscoe Pound's Interest Theory is relevant because carbon disputes bring together interests that may each possess rational legal foundations but operate within unequal structures of power. Pound classifies interests into individual interests, public interests, and social interests, and conceives law as an instrument for identifying and balancing those interests with the least possible sacrifice. In this study, the theory is not used merely to label the parties. It is operationalized through three steps: identifying legally protected interests; assessing the normative weight and potential harm associated with each interest; and designing institutions that enable those interests to be satisfied in a compatible manner.

This approach also prevents two extremes. The first is investment absolutism, which treats administrative permits and investment costs as sufficient grounds for prioritizing corporate interests without correcting for communal rights. The second is the romanticization of customary rights, which assumes that all Indigenous interests automatically override the needs of climate mitigation, carbon verification, and business certainty. Interest Theory instead requires law to search for institutional arrangements that do not create a single absolute winner. In the carbon context, an appropriate solution should satisfy at least three tests: it must preserve environmental integrity and support NDC implementation, maintain legal certainty for lawful activities, and protect community rights over living space together with a proportionate share of benefits.

Table 2. Mapping the Spectrum of Interests (Roscoe Pound)

Public Interest	Individual Interest	Social Interest
a. Achievement of NDC and Paris Agreement targets Non-tax state revenue Ecological stability and global commitments b. Penerimaan negara bukan pajak c. Stabilitas ekologis dan komitmen global	a. Legal certainty for PT Perkasa Bumi Hijau's investment Commercialization of carbon-credit certificates Protection of commercial assets and investments b. komersialisasi sertifikat kredit karbon c. protection of commercial assets and investments	a. Protection of the Moi Indigenous People's living space Cultural preservation and intergenerational justice Social stability and distributive justice b. Preservasi kultural dan keadilan antargenerasi c. Stabilitas sosial dan keadilan distributif

The mapping in Table 2 shows that the state's public interest includes achievement of NDC targets, integrity of the carbon system, public revenue, and conflict prevention. The individual interest of the business actor includes procedural certainty, protection of lawful investment, and the opportunity to obtain benefits from carbon units after applicable requirements have been satisfied. The social interest of the Moi Indigenous People encompasses the integrity of customary territory, access to livelihood resources, continuity of customary institutions, participation in decision-making,

and intergenerational justice. These categories are not factually symmetrical. Corporations and the state generally possess greater access to administrative mechanisms, capital, and technical information. Consequently, balancing interests in Pound's sense should not be interpreted as a mathematical allocation of 1:1:1, but as a corrective mechanism addressing inequality so that each legally protected interest receives effective protection.

From this perspective, the right of Indigenous Peoples to grant or withhold consent performs an important function as a procedural equalizer. FPIC/PADI is not an unlimited veto over all public policy, but a procedure designed to ensure that decisions with substantial impacts on customary territories are not produced through unequal relationships of information and power. A meaningful consent process requires, at a minimum, information concerning territorial boundaries, the duration of activities, the risks of access restrictions, carbon methodology, benefit-sharing arrangements, the consequences of project failure, grievance mechanisms, and opportunities for renegotiation. Experience in natural-resource regulation demonstrates that merely implicit recognition of FPIC tends to leave uncertainty unresolved; explicit procedural safeguards are therefore necessary (Salsabilla et al., 2025).

In addition to procedural justice, carbon conflicts also require distributive justice. Communities that conserve forests may bear opportunity costs arising from restrictions on land use, while the economic value of carbon units materializes only after certification and transaction. Benefit sharing should therefore not be treated as a voluntary corporate social responsibility program. It must form part of the contractual and governance design of the project, through a transparent and auditable formula that recognizes conservation contributions and does not substitute for territorial rights. Recent Indonesian studies indicate that Indigenous Peoples' access to carbon benefits remains constrained by unresolved communal carbon rights, procedural complexity, institutional capacity, and underdeveloped benefit-sharing mechanisms (Amin et al., 2024; Hidayah, 2026).

A Fair Carbon Governance Model for Dispute Resolution

Based on a synthesis of Interest Theory, the constitutional rights of Indigenous Peoples, and developments in the Carbon Economic Value regime through 2026, this study proposes a fair carbon governance model. The model is designed as both a dispute-resolution and dispute-prevention framework and can therefore be applied from the stages of territorial identification and pre-licensing. Unlike compensatory approaches applied only after conflict occurs, this model treats social legitimacy, legal certainty, and carbon integrity as conditions that must be developed simultaneously. The five pillars of the model are: (1) recognition and mapping of rights-holders and territories; (2) meaningful FPIC/PADI; (3) co-management and participatory zoning; (4) transparent benefit sharing; and (5) grievance mechanisms and periodic evaluation.

The first pillar operates as a sequencing rule. Before decisions that effectively lock in the utilization of an area are taken, the government should map tenure claims, customary institutional structures, actual patterns of land use, and the legal recognition status of the community. Where formal recognition remains incomplete but strong evidence of customary control exists, project processes should not exploit administrative delay as a basis for excluding the community. The second pillar treats FPIC/PADI as an ongoing process rather than a single signed document. Consent must be preceded by adequate time for internal deliberation, information presented in an accessible form, access to independent advisers, and documentation of dissent where groups within the community hold different positions.

Table 3. Fair Carbon Governance

No.	Pillar	Principal Instrument
1	Recognition of Rights-Holders and Co-management	Participatory mapping, recognition of customary institutions, and a community role as co-managers/forest stewards
2	Transparent Benefit Sharing	Benefit-sharing formula, community trust fund, auditing, and periodic reporting
3	Participatory Zoning	Conservation, traditional-use, and buffer zones based on socio-ecological mapping
4	FPIC/PADI and Grievance Mechanism	Meaningful consent, an independent grievance mechanism, and periodic evaluation and renegotiation

First, Indigenous Peoples should be positioned as rights-holders and co-managers rather than merely as beneficiaries. This recognition should be implemented through participatory territorial mapping, recognition of legitimate customary representative structures, and community involvement in planning, monitoring, and social MRV. Local knowledge, including customary practices that restrict the use of particular resources, may be integrated where consistent with community decisions, but such practices should neither be romanticized nor imposed as substitutes for formal recognition of rights. A co-management model serves the interests of corporations and the state in preserving carbon integrity while simultaneously protecting the community's social interest in maintaining authority over its territory.

Second, benefit sharing should be formulated as a binding project-governance obligation. Agreements should specify revenue sources, deductible cost components, benefit proportions, payment schedules, audit mechanisms, and procedures applicable when carbon prices change. A community trust fund may support education, health care, local economic development, and conservation, but a portion of benefits should also be directly accessible to households or groups bearing land-use restrictions, in accordance with community decisions. Research on benefit sharing emphasizes that tenure rights are not automatically equivalent to tradable carbon units; distribution formulas must therefore be expressly constructed rather than left to unilateral project-developer policy (Lobubun, 2024; Hidayah, 2026).

Third, participatory zoning is required to avoid total-conservation approaches that eliminate traditional access. Zoning should be based on socio-ecological mapping and carbon data: areas with high ecological sensitivity may receive stricter protection, while areas traditionally used for hunting non-protected species, gathering, customary rituals, or agroforestry may be designated as traditional-use zones subject to agreed sustainability limits. The governing principle should be the least-restrictive measure: restrictions on rights should extend only as far as necessary to maintain carbon integrity and should be reviewed periodically.

Table 4. Area Zoning

Zone Type	Functional Allocation	Access and Legal Conditions	Interest Served
Core Carbon Conservation Zone	Areas with high carbon-stock density and sensitive ecosystems	Strict protection against activities threatening carbon stocks or ecosystem integrity; joint patrols and periodic evaluation.	<i>Individual Interest and Public Interest</i>
Limited or Traditional-Use Zone	Boundary areas and spaces used for daily subsistence activities	Access remains available to Indigenous Peoples for agreed and sustainable traditional activities, including gathering, customary rituals, and the use of non-timber forest products, subject to species protection and ecological limits.	<i>Social Interest (Moi Indigenous People)</i>
Buffer and Community Empowerment Zone	Degraded areas for rehabilitation	Jointly managed for rehabilitation, agroforestry, local-crop cultivation, and customary-based enterprises compatible with carbon objectives.	Harmonization of economic, ecological, and social interests

Fourth, FPIC/PADI should form part of compliance from the pre-licensing stage through any material modification of the project. Fifth, an independent grievance mechanism is required at the

regional level, involving government representatives, legitimate customary representatives, academics or experts, and civil society. The mechanism should establish procedures for receiving complaints, timelines for review, protection against retaliation, access to project documents, and remedial options such as boundary correction, renegotiation of benefit sharing, restoration of access, or temporary suspension of activities. The combination of FPIC and an independent grievance mechanism ensures that consent is not treated as a one-off event but as an ongoing legal relationship subject to review throughout the project cycle.

The proposed model has broader policy implications. First, carbon regulation should clarify the relationship between tenure status and entitlement to carbon benefits so that holding an administrative permit is not automatically treated as conferring sole ownership of carbon's economic value. Second, licensing and registration documents should require evidence of FPIC/PADI processes for projects affecting customary territories, rather than merely evidence that public consultation has occurred. Third, carbon contracts should contain minimum clauses on benefit sharing, data access, methodological changes, reversal risk, project termination, and dispute settlement. Fourth, local governments should be assigned a clear role in mediation, recognition of Indigenous Peoples, and oversight of benefit distribution. Through this legal construction, Interest Theory moves beyond abstraction and is translated into an institutional design capable of practical application and evaluation.

Theoretically, the contribution of the fair carbon governance model is to shift the point of reconciliation from the question of 'who has the strongest right to carbon' toward 'how bundles of rights and bundles of interests can be lawfully allocated'. The state retains its regulatory functions and climate commitments; business actors obtain certainty for activities that comply with the law and applicable consent requirements; and Indigenous Peoples retain authority over their living space while receiving an accountable share of benefits. This balance reflects social engineering in Pound's sense: law organizes institutions so that conflict is not resolved through domination by one interest, but through procedures and distributive arrangements that allow compatible interests to be satisfied together.

CONCLUSION

The carbon-rights dispute involving the Moi Indigenous People and PT Perkasa Bumi Hijau Unit I demonstrates that carbon-market conflicts cannot be understood merely as disputes between business permits and customary rights. Based on publicly available sources, the conflict developed at the planning and licensing stage of a multi-business forestry PBPH for carbon trading; the relevant legal questions therefore concern the process of establishing legality, recognition of rights-holders, participatory rights, and benefit distribution. Under the current regulatory framework, the analysis must distinguish Presidential Regulation Number 98 of 2021 as the historical framework in force when the controversy emerged from Presidential Regulation Number 110 of 2025 and Minister of Forestry Regulation Number 6 of 2026 as the legal framework relevant to future governance. Entitlement to carbon benefits cannot be presumed to follow automatically from administrative permits, but must be legally constructed in conjunction with tenure rights, management authority, consent, and obligations to safeguard environmental integrity.

Using Roscoe Pound's Interest Theory, this study identifies the state's public interest in climate mitigation and market integrity, the business actor's individual interest in legal certainty and economic benefits, and the Moi Indigenous People's social interest in living space, cultural identity, participation, and intergenerational justice. The study's novelty lies in using this mapping to construct a fair carbon governance model integrating five elements: recognition of rights-holders and territory, meaningful FPIC/PADI, co-management and participatory zoning, transparent benefit sharing, and an independent grievance mechanism. The model treats administrative legality and socio-constitutional legitimacy as conditions that must be satisfied simultaneously. This study recommends that the government make verification of Indigenous community claims and FPIC/PADI processes a substantive component of the pre-licensing phase of carbon projects; require minimum clauses on benefit sharing, access to information, auditing, and dispute settlement in contracts and project documentation; and strengthen independent grievance mechanisms at the regional level. Future research should empirically test these normative findings through engagement with the Moi community, local governments, and business actors in order to verify developments in licensing status, consent practices, and actual benefit-sharing

arrangements. This limitation is important because the present study relies on legal materials and publicly available documents rather than field observations.

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