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**A CRITICAL ANALYSIS OF DISTRIBUTIVE JUSTICE IN THE CARBON FUND  
DISTRIBUTION POLICY OF THE FOREST CARBON PARTNERSHIP FACILITY (FCPF) IN  
MAHAKAM ULU REGENCY, EAST KALIMANTAN**

Oleh

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**Abstract:** *The distribution of benefits from global carbon financing schemes continues to face serious challenges regarding fairness for regions that make substantial contributions to forest conservation. This study examines the carbon fund allocation policy of the Forest Carbon Partnership Facility (FCPF) in East Kalimantan Province, focusing on Mahakam Ulu Regency, which maintains 86.95% forest cover yet reportedly receives a disproportionate allocation. A qualitative case study approach was employed through document analysis, secondary data review, and media-based interviews with local stakeholders. The theoretical framework draws on distributive justice based on contribution, rights, and needs, with indicators of proportionality, transparency, institutional capacity, and stakeholder participation. Using Miles and Huberman's (1994) interactive analysis model, findings indicate a misalignment between Mahakam Ulu's ecological contribution and the funding received only IDR 1.305 million per km<sup>2</sup> of forest in the first payment period. Contributing factors include a lack of transparency in the Benefit Sharing Plan (BSP) allocation formula, limited local institutional capacity, and the exclusion of three villages from the beneficiary list. This study recommends reformulating allocation criteria to recognize passive conservation value, strengthening local capacity, and improving distribution transparency.*

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**PENDAHULUAN**

Climate change has driven the international community to develop carbon-based financing instruments as a key mitigation strategy. Tropical forests play a vital role as natural carbon sinks, making forest conservation incentive schemes an important component of the global climate architecture. The Reducing Emissions from Deforestation and Forest Degradation (REDD+) mechanism is designed to compensate developing countries that successfully reduce deforestation rates, with the *Forest Carbon Partnership Facility* (FCPF) initiated by the World Bank as one of its primary funding instruments (Bank, 2024).

Indonesia has become an FCPF recipient through a results-based payment program implemented in East Kalimantan Province as a pilot region (FCPF, 2025).

East Kalimantan receives carbon funding through the *Emission Reductions Payment Agreement* (ERPA) based on verified emission reductions, which are then allocated to various levels of government and local communities through the *Benefit Sharing Plan* (BSP) mechanism. In the first payment period, total funds disbursed reached hundreds of billions of rupiah, distributed to eight regencies and cities in East Kalimantan (Kemenkeu, 2024). Mahakam Ulu Regency, with 86.95% forest cover across its 15,315 km<sup>2</sup> area, received only IDR 17.38 billion or IDR 1.305 million per km<sup>2</sup> of forest lower than several regencies with far smaller forest cover percentages (BPS Kaltim, 2021). This raises serious questions about whether the distribution scheme fulfills principles of justice.

Previous studies consistently show that REDD+ benefit distribution tends to be unequal. (Luttrell et al., 2013) demonstrated that benefit-sharing rationales must be explicitly established before effective mechanisms can be designed, noting that stakeholders who do not perceive benefit sharing as fair will withdraw their support for REDD+. (Sunderlin et al., 2009) similarly found that unresolved tenure issues limit the effectiveness, efficiency, and equity of REDD+ implementation. (Wong et al., 2019) further showed that dominant narratives in REDD+ benefit sharing tend to favor active emission reduction performance over passive conservation contributions, systematically disadvantaging ecologically critical regions. This study departs from these gaps by critically examining how distributive justice principles are reflected in FCPF carbon fund distribution policies for regions like Mahakam Ulu ecologically critical yet administratively limited.

This study aims to: (1) analyze the proportionality of FCPF carbon fund distribution in East Kalimantan through a distributive justice lens; (2) identify factors affecting the misalignment between ecological contributions and benefit allocations; and (3) formulate more equitable policy recommendations. This inquiry is important because injustice in carbon fund distribution threatens both the legitimacy of REDD+ programs and the long-term forest conservation commitment of local communities (Arhin, 2014).

## LITERATURE REVIEW AND THEORETICAL FRAMEWORK

### *Distributive Justice Theory*

Distributive justice addresses the principles governing the fair distribution of benefits and burdens in society. Rawls (1971), in *A Theory of Justice*, asserts that a distribution is just if it benefits the most disadvantaged groups the *difference principle*. This principle is directly applicable to evaluating whether FCPF allocations favor or neglect communities that bear the greatest conservation burden while remaining the most vulnerable economically and institutionally.

Sen (1999), through *Development as Freedom*, proposes the capabilities approach, emphasizing that justice is not merely about nominal amounts received but about whether individuals and groups can access the substantive freedoms needed to live dignified lives. Low local capacity such as limited human resources and infrastructure in Mahakam Ulu becomes a critical measure in this framework, as it determines whether regions can effectively access and utilize carbon funds regardless of formal allocation.

Fraser (2008) adds dimensions of *recognition* and *representation* to the justice

framework, arguing that equitable distribution cannot be separated from the acknowledgment of group rights and identities, and from meaningful involvement in decision-making processes. The absence of meaningful Dayak indigenous community representation in BSP design reflects a representational justice deficit that compounds the distributive injustice (Fraser, 2008).

#### ***REDD+ and the Forest Carbon Partnership Facility***

REDD+ is an international mechanism providing financial incentives to developing countries for reducing emissions from deforestation and forest degradation. The FCPF, as one of REDD+'s main funding instruments, operates through two channels: a Readiness Fund for capacity building, and a Carbon Fund for results-based payments of verified emission reductions (Bank, 2021). Indonesia, through its East Kalimantan program, became one of the first countries to receive Carbon Fund payments based on emission reduction achievements agreed upon in the ERPA (Kaltim, 2021).

Benefit sharing in FCPF is governed through the BSP, which sets allocation criteria and proportions for various stakeholders from central government down to local communities. The East Kalimantan BSP (Bank, 2021) states that allocations consider emission reduction performance, program area extent, and population, but the weighting of each criterion is not publicly disclosed, creating uncertainty about distributional fairness for recipient regions. This opacity is particularly problematic for ecologically rich but institutionally limited regions such as Mahakam Ulu.

#### ***Access, Equity, and Natural Resource Governance***

Ribot & Peluso (2003) argue that access to natural resource benefits is not determined solely by availability, but by power relations and institutional capacity that vary greatly across regions. This theoretical insight is directly applicable to Mahakam Ulu, where institutional weaknesses limited administrative capacity, geographic isolation, and infrastructure deficits constrain the region's ability to access carbon fund benefits despite holding the largest ecological contribution in the province.

Arhin (2014) further demonstrated that REDD+ safeguards can operate as dangerguards when they fail to include transformative provisions that empower local communities to access and control benefits. Safeguards focused only on preventing harm, without addressing structural inequities in benefit access, reproduce rather than remedy distributive injustice. This framework reinforces the need for benefit-sharing designs that explicitly address capacity disparities between receiving regions.

#### ***Previous Research***

Luttrell et al., (2013) found that benefit-sharing rationales in REDD+ vary widely: some prioritize actual emission reductions or costs incurred; others emphasize legal rights to benefit, poverty reduction, or recognizing those with a history of forest protection. Each rationale carries different equity implications, and the study concluded that failing to clearly define objectives and the term benefit itself prevents effective and equitable benefit-sharing mechanism design.

Sunderlin et al., (2009) documented that forest tenure ambiguity and conflict are pervasive in most REDD+ countries, limiting the effectiveness, efficiency, and equity of benefit distribution. Their analysis in the *Realising REDD+* volume demonstrated that without clear and secure tenure rights for local communities, REDD+ payments may fail to reach

those who bear the primary costs of conservation.

Wong et al., (2019), examining narratives in REDD+ benefit sharing across multiple countries, found that dominant narratives favor results-based payment systems tied to active emission reductions, disadvantaging regions that passively maintain high forest cover. Their analysis in *Climate Policy* confirms that structural biases in REDD+ design systematically marginalize ecologically critical but institutionally weak regions precisely the situation facing Mahakam Ulu.

## METHODOLOGY

This study employed a qualitative approach with a case study design (Yin, 2018). This design was chosen to deeply explore the dynamics of FCPF carbon fund distribution in East Kalimantan, particularly in Mahakam Ulu Regency, which has unique biophysical and social characteristics that cannot be adequately captured through quantitative approaches alone. Case study methodology is considered appropriate for revealing meaning, processes, and context in complex policy environments.

The unit of analysis is the FCPF carbon fund distribution in East Kalimantan's first payment period, with Mahakam Ulu Regency as the focal case. Mahakam Ulu was selected because it holds the highest forest cover percentage in East Kalimantan while being the most vocal region in contesting the prevailing distribution scheme.

Data were obtained from two types. First, *secondary data* comprising: (1) official documents including the East Kalimantan Benefit Sharing Plan (Bank, 2021, 2024), ERPA reports (Kemenkeu, 2024), forest cover data from BPS Kaltim (2021), population data from BPS Kaltim (2024), and related policies; (2) online media reporting containing direct stakeholder statements (Kaltim, 2024); and (3) academic literature on REDD+ and distributive justice. Second, *primary data* obtained through media-reported interviews with the Head of the Community and Village Empowerment Service (DPMK) of Mahakam Ulu, Damianus Tamha. This data was collected indirectly via verified media reporting, a limitation acknowledged in this study.

Data analysis followed (Miles & Huberman, 1994) interactive model comprising four stages: (1) data collection, (2) data reduction, (3) data display, and (4) conclusion drawing and verification. This process was integrated with deductive thematic analysis using Rawls', Sen's, and Fraser's distributive justice frameworks as analytical categories. Validity was enhanced through source triangulation comparing government documents, independent media reports, and academic literature.

## RESULTS AND DISCUSSION

### *Contribution-Based Justice: Proportionality of FCPF Allocations*

BPS Kaltim (2021) data shows that Mahakam Ulu Regency has an area of 15,315 km<sup>2</sup> with forest cover of 13,316.21 km<sup>2</sup> (86.95%), the highest percentage in East Kalimantan Province. This is accompanied by a very low population density of 2 people per km<sup>2</sup>, with approximately 39,319 inhabitants in 2023 (BPS Kaltim, 2024) predominantly Dayak indigenous people whose livelihoods are deeply tied to forest conservation.

In the first FCPF payment period, Mahakam Ulu received IDR 17.38 billion. Table 1 presents a comparison of FCPF allocations with biophysical and demographic characteristics

of all recipient regencies and cities in East Kalimantan.

**Table 1. FCPF Carbon Fund Allocation (Period I) and Regional Characteristics in East Kalimantan**

Regency/City	FCPF Fund (IDR Billion)	Area (km <sup>2</sup> )	Forest Cover (km <sup>2</sup> )	Forest Cover (%)	Population	Fund/km <sup>2</sup> Forest (IDR Million)	Fund per Capita (IDR)
Mahakam Ulu	17.38	15,315	13,316.21	86.95	39,319	1,305	441,908
Berau	27.57	36,962	15,245.33	41.25	299,005	1,809	92,199
Kutai Timur	25.32	35,748	19,601.00	54.83	448,850	1,292	56,409
Paser	19.26	11,604	4,045.00	34.86	309,667	4,761	62,196
Kutai Barat	16.33	20,385	6,186.30	30.35	186,581	2,639	87,522
Kutai Kartanegara	9.88	27,263	13,849.00	50.79	729,382	0.713	13,546
Penajam Paser Utara	3.37	3,333	1,442.48	43.28	202,067	2,336	16,677
Kota Balikpapan	0.214	503	334.31	66.46	502,539	0.640	426

*Source: BPS Kaltim (2021; 2024); BPD LH Kemenkeu (2024); Processed by Authors, 2026*

The data reveal that Mahakam Ulu's fund per km<sup>2</sup> of forest (IDR 1.305 million) is lower than Berau (IDR 1.809 million), Paser (IDR 4.761 million), Kutai Barat (IDR 2.639 million), and Penajam Paser Utara (IDR 2.336 million), despite Mahakam Ulu's forest cover percentage far exceeding all those regencies. This significant disparity indicates that forest cover extent is not the dominant factor in FCPF allocation determination, contradicting the contribution-based justice principle articulated by (Rawls, 1971).

This pattern confirms (Wong et al., 2019) finding that dominant REDD+ narratives favor active emission reduction performance over passive conservation, systematically disadvantaging regions like Mahakam Ulu where historically low deforestation rates mean there is limited scope for verified emission reductions despite enormous ecological contributions to regional forest integrity.

***Rights and Capability-Based Justice: Stakeholder Perspectives***

Media-reported statements by the Head of DPMK Mahakam Ulu, Damianus Tamha, obtained through (Kaltim, 2024), reveal several critical field-level issues. First, the allocation received is deemed disproportionate to the forest area maintained: if Mahakam Ulu's forests

were degraded, the impact would extend across East Kalimantan, including downstream regions receiving higher per-km<sup>2</sup> allocations. Second, three of 50 villages were excluded from the beneficiary list without official explanation. Third, no technical guidelines for fund utilization had been issued as of October 2023, creating a risk of funds becoming unspent budget (SILPA) at year-end.

These findings align with (Arhin, 2014) framework: the current FCPF safeguards operate primarily as preventive mechanisms rather than transformative ones, failing to address the structural capacity disparities that prevent Mahakam Ulu from fully accessing the benefits it ecologically warrants. This reflects Sen's (1999) capability approach: formal allocation does not translate to real benefit if institutional capacity to access and utilize funds is absent.

**Table 2. Mahakam Ulu Stakeholder Perspectives on the FCPF Distribution Scheme**

Stakeholder	Main Issues/Objections	Expectations/Recommendations
Head of DPMK Mahakam Ulu (Damianus Tamha)	Fund allocation disproportionate to ecological value of forests	Increase allocation proportional to ecological contribution
	3 of 50 villages excluded without official explanation	All villages receive equitable benefits
	No technical fund-use guidelines as of October 2023	Guidelines issued before disbursement
	Risk of SILPA due to late year-end disbursement	Early-year disbursement for effective use
	Bureaucracy potentially challenging for remote regions	Simplified procedures for geographically isolated areas

*Source: Kaltimkece.id (2023); Prokopim Mahakamulukab.go.id (2023); Processed by Authors, 2026*

The absence of meaningful Dayak representation in BSP design further compounds this injustice. Fraser (2008) argues that redistributive justice cannot be separated from recognition and representational justice: communities must be acknowledged as rights holders and involved in decision-making to achieve genuine distributional equity. The public consultations recorded in the BSP document (Bank, 2021) do not guarantee that indigenous community aspirations were reflected in the final allocation formula.

#### **Needs-Based Justice: Structural Analysis of Distribution Gaps**

From a needs-based justice perspective, Mahakam Ulu has a relatively low Human Development Index and limited fiscal capacity compared to other East Kalimantan regencies. Geographic isolation and infrastructure limitations mean that carbon fund revenues have the highest potential development impact precisely in Mahakam Ulu yet this is the region receiving proportionally less than more administratively capable regions (BPS Kaltim, 2024). This inverts the needs-based allocation logic that Rawls' difference principle demands.

(Luttrell et al., 2013) noted that the equity of benefit-sharing outcomes depends critically

on which rationale emission reductions, historical protection, rights-based, or needs-based is used to justify allocations. The current FCPF BSP appears to implicitly favor an emission-reduction performance rationale, without transparently weighting rights-based or needs-based considerations. This design choice has systematic equity consequences for regions like Mahakam Ulu.

Key structural factors contributing to distributional inequity include: (1) BSP allocation criteria giving insufficient weight to passive conservation contributions; (2) opacity in the fund-sharing formula; (3) differential administrative capacity across regencies in preparing proposals and meeting technical requirements (Ribot & Peluso, 2003); (4) limited meaningful participation by indigenous communities in BSP design (Fraser, 2008; Sunderlin et al., 2009); and (5) methodological challenges in monetizing long-term conservation contributions. These factors collectively produce a systematic bias favoring regions with high technical and administrative capacity over those with the greatest ecological contributions.

## CONCLUSION

The distribution of FCPF carbon funds in East Kalimantan does not yet reflect distributive justice for Mahakam Ulu Regency. Despite holding the highest forest cover (86.95%), Mahakam Ulu received only IDR 1.305 million per km<sup>2</sup> of forest in the first payment period below several regencies with far smaller forest cover. This injustice stems from an allocation formula that fails to recognize passive conservation, opacity in the BSP mechanism, and unequal institutional capacity across regions.

At the field level, injustice manifests in the exclusion of three villages from the beneficiary list without explanation, the absence of technical fund-use guidelines, and disbursement bureaucracy unadapted to remote region conditions. These findings confirm that justice in FCPF encompasses procedural and recognition dimensions not merely nominal allocation amounts as theorized by (Fraser, 2008; Sen, 1999).

This study recommends: (1) reformulating BSP allocation criteria to include explicit weighting for passive conservation value and regional needs indicators; (2) increasing transparency in the fund-sharing formula and strengthening indigenous community participation in BSP design and evaluation; and (3) providing targeted capacity-building support for geographically isolated regencies to ensure equal access to and effective utilization of carbon funds.

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