Ecological Crisis and the Conservation Paradox in West Kalimantan

Introduction: Ecological Compensation or a Diversion?

The establishment of the Mendawak Protected Forest (HL) biosphere nature reserve, spanning Ketapang, Sanggau, Kubu Raya and Kayong Utara regencies, comes amid an ecological paradox. The area has been declared a conservation initiative while large-scale extractive permits, oil palm plantations, industrial timber plantations (HTI) and extensive bauxite mining consume the same landscape. This essay argues that the designation of HL Mendawak risks becoming an instrument of "structural greenwashing": a policy manoeuvre that diverts attention from the systemic damage extractive industries have inflicted on the Kapuas watershed and peatland ecosystems, while shifting the burden of conservation onto local communities—the principal victims of environmental degradation.

The Burden of Ecosystem Damage: Before and After Conservation

1. Deforestation and Habitat Fragmentation

Forest Watch Indonesia (FWI) data show that West Kalimantan lost more than 1.5 million hectares of natural forest between 2000 and 2020, with Ketapang and Sanggau making the largest contributions. A study in *Land* (2021) confirms forest conversion for oil palm and industrial timber plantations as the main driver. In a 2022 interview with Mongabay Indonesia, Dr David Gaveau (TheTreeMap.org) criticised this pattern: "Establishing protected areas after the surrounding forests have been carved up into concessions is a flawed strategy. It is like building a fortress in a sea already controlled by the enemy."

2. The Kapuas Watershed Crisis: A Threatened Lifeline

The watershed of the Kapuas, Indonesia's longest river, is suffering degradation on multiple fronts:

- **Mining pollution:** West Kalimantan's Environment and Forestry Office (DLHK) records significant increases in Total Suspended Solids (TSS) and heavy metals—aluminium and iron—in Kapuas tributaries originating in bauxite mining areas. Research by Mukhlis et al. (2020) confirms heavy-metal concentrations exceeding quality standards.
- **Plantation contamination:** WWF Indonesia's 2019 report documents eutrophication caused by palm oil mill effluent (POME) and pesticide runoff, killing aquatic life and threatening traditional fishers' livelihoods.
- **The crisis of peatlands as hydrological buffers:** peat ecosystems in Kubu Raya and Ketapang, crucial buffers for the Kapuas watershed, have been extensively converted. In 2022, the Peatland and Mangrove Restoration Agency (BRGM) recorded 60% of West

Kalimantan's hotspots on cleared peatlands. Peat fires release vast quantities of carbon (Miettinen et al., 2016, in *Nature*) and cause subsidence of 3–5 cm a year (Hooijer et al., 2012), resulting in permanent inundation and deteriorating water quality.

Recovery Analysis: The Impossibility of Restoration under Business as Usual

Restoring damaged peatland ecosystems presents a fundamental paradox. Although BRGM builds canal blocks and undertakes revegetation, contradictory policies limit their effectiveness. At the 2021 National Seminar on Land Degradation, Prof. Dr Supiandi Sabiham (IPB) stated: "Ecological recovery of peatlands takes decades, even centuries. Our technology can currently do little more than prevent further damage."

Dr Dedi Harmoko (LIPI Limnology) was more emphatic at a WRI Indonesia discussion in 2023: "We are running on the spot. On one hand, BRGM builds 1,000 canal blocks. On the other, local governments continue to issue plantation permits on deep peat. Without a complete moratorium, restoration becomes nothing more than a construction project." Restoration costs reach Rp15–30 million per hectare (Susanti & Adiwibowo, 2020), far exceeding the short-term economic benefits of destroying it.

The Community Dilemma: Conservation's Double Burden

Local communities face an unjust double burden:

- **Successive losses:** first, they lose land and access to industrial expansion. They then risk losing access to HL Mendawak—the only remaining forest that could provide a safety net—under strict conservation rules.
- **Criminalisation and conflict:** at an AMAN West Kalimantan forum in 2023, Franky Samperante of Yayasan Pusaka warned: "Without recognition of customary rights, designating protected areas risks criminalising communities as encroachers on their own ancestral lands." Traditional activities such as gathering forest products may be treated as illegal.
- **The burden of wildlife conflict:** habitat fragmentation drives animals such as swamp crocodiles into settlements, leading to attacks on people in Kampung Baru village. Communities bear the losses while the underlying cause—the disappearance of wildlife corridors following industrial permits—remains unaddressed.

Expert Views: Conservation as an Alibi?

In his 2021 book *Kehutanan Indonesia: Dari Kedaulatan ke Ketergantungan*, Prof. Dr Hariadi Kartodiharjo (IPB) analyses this as political image-building: "This is a form of illusory compensation. If the government were serious, its first step would be a comprehensive review and revocation of damaging permits in areas that are actually more critical—not adding new protected areas while allowing the 'fire' next door to continue."

Synthesis: HL Mendawak Caught in Governance Failure

HL Mendawak risks becoming:

- **An isolated island of conservation:** surrounded by damaged land, a polluted Kapuas watershed and drying peat, its ecological value is threatened.
- **A means of legitimising poor spatial planning:** drawing attention away from the review of destructive permits still in operation.
- **An elitist conservation project:** involving little community participation, disregarding local knowledge and potentially becoming repressive.

Recommendations: From Partial Conservation to Systemic Transformation

A radical approach is needed if HL Mendawak is not to become a gravestone for environmental governance:

- **A moratorium and integrated law enforcement:** review and revoke permits damaging the Kapuas watershed and peatlands. Apply the polluter-pays principle consistently.
- **Integrated landscape restoration:** link the recovery of HL Mendawak with an Integrated Kapuas Watershed Recovery Plan, prioritising riparian forest rehabilitation and upstream pollution control.
- **Inclusive, rights-based conservation:** recognise and empower Indigenous communities as partners in managing the area. Adopt community-based conservation with zoning that respects traditional rights.
- **Transparency and accountability:** open permit, restoration and environmental monitoring data—including Kapuas water quality and peat water levels—to public scrutiny.
- **A restorative economic approach:** develop livelihoods based on healthy ecosystems, including integrated ecotourism, paludiculture and community-managed non-timber forest products.

View image

Conclusion

West Kalimantan faces a clear choice: continue an extractive model with conservation as its whitewash, or shift to systemic recovery founded on ecological justice. HL Mendawak will matter only if it forms part of the latter transformation: a genuine commitment to heal the Kapuas watershed, restore peatlands, recognise community rights and overhaul permit policy at its roots. Otherwise, it will become the bitterest symbol of Indonesia's conservation paradox: protecting a small fraction while allowing most of the landscape to be destroyed, and calling that progress.

References

1. Forest Watch Indonesia. (2021). *Potret Kehilangan Tutupan Hutan Alam 2000-2020*.
2. *Land*. (2021). “Spatial-Temporal Dynamics of Deforestation in South Ketapang”.
3. Mongabay Indonesia. (2022). Interview with David Gaveau.
4. DLHK Kalbar & Mukhlis et al. (2020). Kapuas River water-quality data.
5. WWF Indonesia. (2019). Report on the state of the Kapuas watershed.
6. BRGM. (2022). Peatland restoration report.
7. *Nature* & *Biogeosciences*. (2016, 2012). Studies of carbon emissions and peat subsidence.
8. Kartodiharjo, H. (2021). *Kehutanan Indonesia: Dari Kedaulatan ke Ketergantungan*.
9. AMAN Kalbar. (2023). Indigenous peoples’ rights discussion document.
10. WRI Indonesia. (2023). Discussion on freshwater and peatland ecosystem restoration.

Download the full article: Read the article