PLAN VIVO

PV Nature

Plan Vivo Project Design Document

Pematang Gadung Community Peatland Conservation and Restoration Project

Ketapang, West Kalimantan, Indonesia

Public Consultation

28 October 2026



Raffles's malkoha (Rhinortha chlorophaea) in Pematang Gadung Village Forest

Developed by:

Koperasi Mandiri Pematang Gadung Sejahtera (KMPGS) (Independent Pematang Gadung Cooperative for Prosperity) and Lembaga Pengelolaan Hutan Desa Pematang Gadung (LPHD) Pematang Gadung Village Forest Management

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OVERVIEW

Project Title:	**Pematang Gadung Community Peatland Conservation and Restoration Project**
Location:	Ketapang District, West Kalimantan, Indonesia
Project Description:	This landscape is a Hutan Desa (a 'Village Forest' with community management and use rights) and is under considerable pressure, mostly from mining and conversion to oil palm. It is one of the last significant areas of coastal peatland left in the West Kalimantan Province. Local Melayu communities in this area have been implementing SMART forest patrols, biodiversity monitoring, peat restoration and, more recently, fire prevention activities through support from a local NGO, Yayasan Inisiasi Alam Rehabilitasi Indonesia (YIARI). There is a resident population of Bornean orangutan (*Pongo pygmaeus* - Critically Endangered), proboscis monkey (*Nasalis larvatus* – Endangered) and false gharial (*Tomistoma schlegelii* - Endangered) amongst many threatened species. By providing opportunities for village members to be involved in the patrolling, restoration of this area and other sustainable livelihood initiatives, the project expects that the perceived appeal and benefits associated with mining and conversion activities will decrease while those associated with regenerative livelihood opportunities will increase.
Project Area:	7,004 hectares (ha) of Village Forest
Project Coordinator:	Koperasi Mandiri Pematang Gadung Sejahtera (KMPGS) / (Independent Pematang Gadung Cooperative for Prosperity) & Lembaga Pengelolaan Hutan Desa (LPHD)/ Village Forest Management Unit Pematang Gadung Address: Desa Pematang Gadung, Jalan Raya Pematang Gadung Kode Pos 78822. Kecamatan Matan Hilir Selatan, Kabupaten Ketapang, Kalimantan Barat. Email: koperasipmpgs@gmail.com

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Project Participants:	By the end of the development period and prior to certificate issuance, the project expects ~95-105 KMPGS and LPHD members/households to participate actively in project activities: a. Approximately 30 patrol staff will conduct patrols in high-risk areas for illegal activities. b. Approximately 40 'forest restorers' (50% women) will collect wild seeds, germinate and plant native peatland species. c. A group of ~10 cooperative members will monitor biodiversity through camera traps. d. Approximately 15-25 fire-prevention staff (all women). Local youth will have access to skills training and informal education. After certificate issuance and sale: The project aims to benefit 500 households (>50% of all households [n=921] in Pematang Gadung village).
Project Intervention(s):	Proposed project interventions are as follows: 1) Fire-risk mitigation – the existing all-female fire-patrollers will train cooperative members to carry out fire-prevention and fire-fighting activities (Protection), as well as other civil society and private sector actors (other village representatives, plantation owners and managers) in managing fire risk and fire-fighting. 2) Improved governance – village members will carry out patrols in high-risk areas (Protection). 3) Improved wildlife monitoring – village members will monitor biodiversity trends (Protection). 4) Improved habitat resilience – village members will replant native peat species over approximately 1,500 hectares (Restoration).
Project Period:	Project start: 1/04/2026 Project end: 30/03/2056

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Expected Biodiversity Benefit(s):	Describe the expected biodiversity benefit(s) of the project. (max 150 words) Reduced mining, illegal hunting and illegal logging pressures on Pematang Gadung village forest allow Bornean orangutan (CR), proboscis monkeys (EN), Bornean agile gibbon (*Hylobates albibarbis* - EN), silvered langur (Trachypithecus cristatus - EN), Storm's stork (*Ciconia stormi* - EN), Bornean clouded leopard (*Neofelis diardi borneensis* - VU), binturong (*Arctictis binturong* - VU) false gharial (VU), five hornbill species and dozens of other threatened species to continue to inhabit this site.
Expected Environmental Benefit(s):	Describe the expected environmental benefit(s) of the project. (max 150 words) Restoring degraded peat in Pematang Gadung enhances ecosystem services for people and habitat quality for wildlife.
Expected Socioeconomic Benefit(s):	Describe the expected socioeconomic benefit(s) of the project. (max 150 words) Socio-economic benefits expected from this project: Early fire detection results in less burning and fewer associated problems (cleaner air, lower rates of respiratory diseases) and benefits ~2,986 women, men and children.
Methodology Design:	Please state whether the project is focusing on conservation or restoration certificates. The project focuses on restoration across ~1,500 hectares and conservation across ~5,000 hectares of the same landscape; therefore, it focusing on both conservation and restoration certificates. The project fulfils Criterion A1c of the Key Biodiversity Area Criteria.
Version:	0.1
Validator:	Preferred by Nature
Validation Date:	7 December 2026

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1 General Information

1.1 Project Rationale

Agricultural encroachment, fires and oil palm have driven the conversion of Indonesian peatland for decades, reducing it to <60% of its original extent (Miettinen et al., 2011, 2016). Although oil palm conversion has slowed, fires remain a significant threat, and the rising mineral demand has further reduced the resilience of this critical ecosystem. Pematang Gadung-Pesaguan landscape covers 21,241 ha of high-biodiversity coastal peatland forest and 1,800 ha of agricultural land and includes a community-managed forest (7,004 ha). This landscape is home to the Bornean orangutan (CR), proboscis monkey (EN), and silvered langur (EN).

Bornean agile gibbon (EN) and dozens of threatened bird and freshwater species. In 2015, during the prolonged El Niño-induced dry season, one-fourth of the Pematang Gadung (PG) Village Forest was lost to fire. Currently, approximately 55% of the 921 households depend on agriculture, and 30% depend on illegal mining on the eastern side of the Village Forest. Working conditions are dangerous, with miners and their families (especially young children) developing skin and respiratory diseases. Most miners would prefer other types of employment where their health and their families' health are not compromised, but marginalisation and lack of opportunity leave them with little choice. As peat becomes degraded, its water table lowers, increasing the likelihood of uncontrolled fires, along with CO^2 emissions, ecosystem breakdown and negative health implications. Eighty PG villagers have been restoring degraded peat, preventing fires, monitoring wildlife, and protecting their forest since 2016. This project aims to scale efforts sustainably, equitably, transparently and over the long-term through biodiversity certification. Greater incentives for regenerative livelihoods will protect human health, ecosystem services and threatened species populations. If successful, this will be a community-owned and led model which will be scalable to nearby village forests.

1.2 Justification for Conservation Projects (Not applicable for Restoration Projects)

The last comprehensive Bornean orangutan survey was carried out in 2016 (Orangutan nest survey report in Pematang Gadung and Sungai Besar Village Forests, 2016 YIARI unpublished report). It was based on six transects in Pematang Gadung Village Forest and one in Sungai Besar (SB) Village Forest. It estimated between 548 and 808 individuals, with a density estimate of between 2.61 and 3.85 ind/km2. When considering the relevant

remaining habitat within recognised Village Forest borders, the number of orangutan individuals is estimated at between 130 and 192. Given an estimated global population of 47,000 for 2025 (Ancrenaz et al. 2024), the population within legal Village Forest borders is estimated at 0.27% and 0.4%, thus qualifying for KBA criterion A1c (Table 1).

The Bornean orangutan is not monitored solely by camera traps. In addition to camera-trap monitoring under the PV Nature Methodology, orangutans are monitored through nest surveys (conducted once every 5 years) to assess their presence, distribution and relative abundance, and through monthly wildlife census walks, during which direct sightings, vocalisations and other signs of presence are recorded. These monitoring activities are conducted separately from the PV Nature Methodology and provide complementary information on orangutan presence, distribution and population status within the project area.

Table 1. Species that trigger the required 1 KBA Criterion under PV Nature.

Species	IUCN Red List status	Relevant KBA A1 sub-criterion	Threatened Status as assessed under the Red List Criteria	% global population threshold required	Global population size (mature individuals)	Site population size (mature individuals)	% of global population size at project area	Reproductive units in project area	Year of recent confirmation of species presence at the site	KBA A1 subcriterion met	Reference/ Justification
Bornean orangutan (*Pongo pygmaeus*)	CR	A1c	A4abcd	≥0.1%	47,000	130-192	0.27-0.4%	>50	2025 (pers. comm, LPHD)	Yes	2016 YIARI Nest survey report Acronaz *et al*. 2024 (IUCN Red List assessment).

1.3 Project Interventions

Table 2 – Project Interventions

Intervention Type	Project Intervention	Expected Benefits
Protection	1. Training community members in fire-prevention and fire-fighting techniques. 2. Fire risk mitigation through fire-prevention and fire-fighting activities. 3. Create 'green fire-prevention and fire-fighting jobs' directly tied to positive environmental outcomes and increases in multi-dimensional well-being.	Early fire detection results in less burning and fewer associated problems, such as cleaner air and lower rates of respiratory diseases. This benefits approximately 3,000 women, men, and children. Reduces wildlife mortality and displacement by limiting the loss and degradation of critical habitat and food resources. Early fire detection and management. Increased multi-dimensional well-being through skills training and employment opportunities, benefiting at least 60 households.
Protection	1. Patrolling around mining and other high-risk areas to ensure mining operations and other destructive activities such as poaching remain contained and stop their spread into the Village Forest. 2. Establish permanent patrol posts strategically positioned	Stem the spread of mining, preventing the loss of additional peat forest. Reduction of other illegal activities, thus maintaining Bornean orangutan habitat (as well as that of dozens of other threatened species). Local communities report improvements in Village Forest

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	at the edge of mining areas. These posts will ensure daily presence of the patrolling team and will halt the expansion of mining operations. The team will also file reports with the Forest Management Unit Authorities for each instance of illegal activity, triggering local government involvement. In addition, forest monitoring will be strengthened by integrating Global Forest Watch alerts, satellite imagery reviews via Google Earth, spatial analysis through GIS platforms, and field verification using drones. 3. Create 'green patrolling and monitoring jobs' directly tied to positive environmental outcomes and increases in multi-dimensional well-being.	governance, with increased female participation. Benefits from the Village Forest are distributed equitably and managed transparently. CO^2 emissions avoidance. Prevent water pollution from worsening. Prevent peatland degradation from worsening. Prevent illegal hunting within the village forest area. Mining is both deterred (see above) and becomes a less attractive option through the availability of opportunities linked to restoration, governance, and wildlife monitoring. These options do not compromise human health. Skills training and employment opportunities increase multi-dimensional well-being by benefiting at least 30 households.
Restoration	1. Training community members in restoration techniques. 2. The replanting of approximately 1,500 hectares with native peat species, such	Increase in available habitat and food for wildlife. Increase ecosystem resilience and reduced fire risk. Improvement in CO^2 sequestration.

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	as: *Syzygium zeylanicum, Syzygium caudatilimbum, Dillenia excelsa, Cratoxylum arborescens, Ilex cymosa, Tristaniopsis merguensis, Vatica pauciflora, Melaleuca sp., Actinodaphne* sp., *Lagerstroemia* sp., *Canthium* sp., *Alstonia* sp., *Barringtonia* sp., *Ardisia* sp., *Artabotrys* sp., *Ardisia* sp., *Ixora* sp. *& Litsea* sp. 3. Create 'green restoration jobs' directly tied to positive environmental outcomes and increases in multi-dimensional well-being.	Strengthen local capacity. Create green jobs, with a focus on female leadership in nursery management. Ecosystem service enhancement (water quality, fish availability, decreased risk of fires, whole ecosystem resilience) for people. Multi-dimensional well-being increased through skills training and employment opportunities, benefiting at least 60 households.

1.4 Project Boundaries

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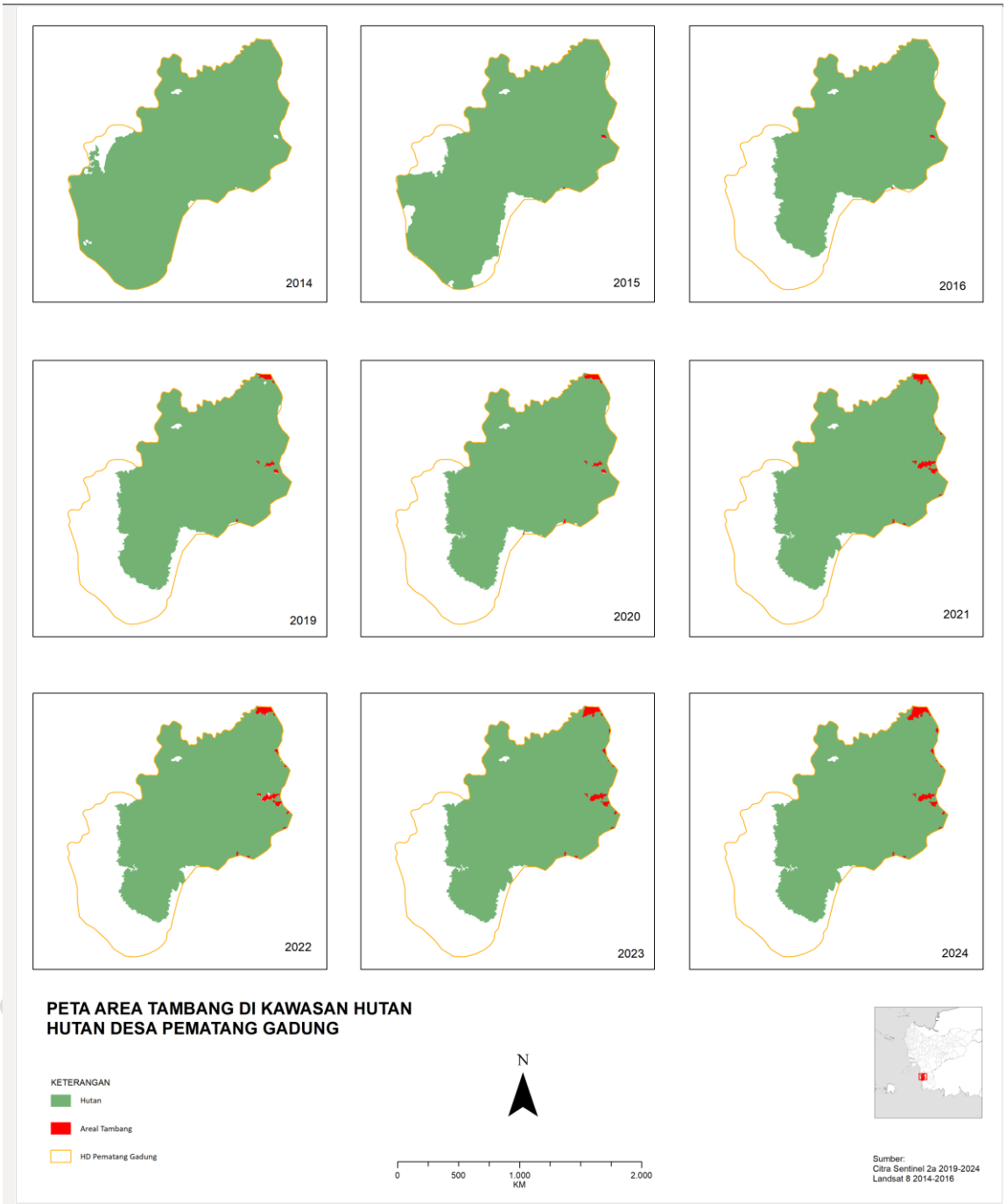


Figure 1: Forest loss in the PG Village forest over a 10-year period (2014-2024) [Green – forest cover, Orange – PG forest boundary, Red- mining area]. Note the huge forest area lost to fires in 2015/2016.



Figure 2: Forest loss in the PG- SB over a 10-year period (2014-2024) [Green – forest cover, Orange – forest boundary]. Forest loss is attributed to mining on the eastern side – forest loss on the western side is due to fire.

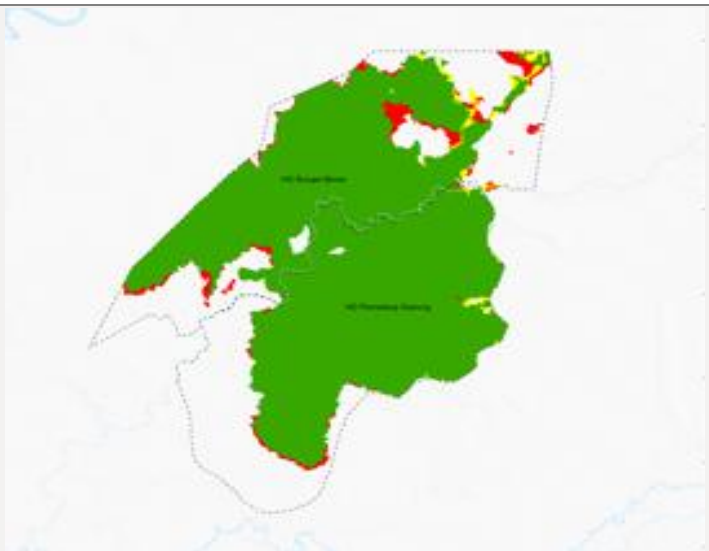


Figure 3: The Village forest of SB – adjacent village forest to the north of PG.

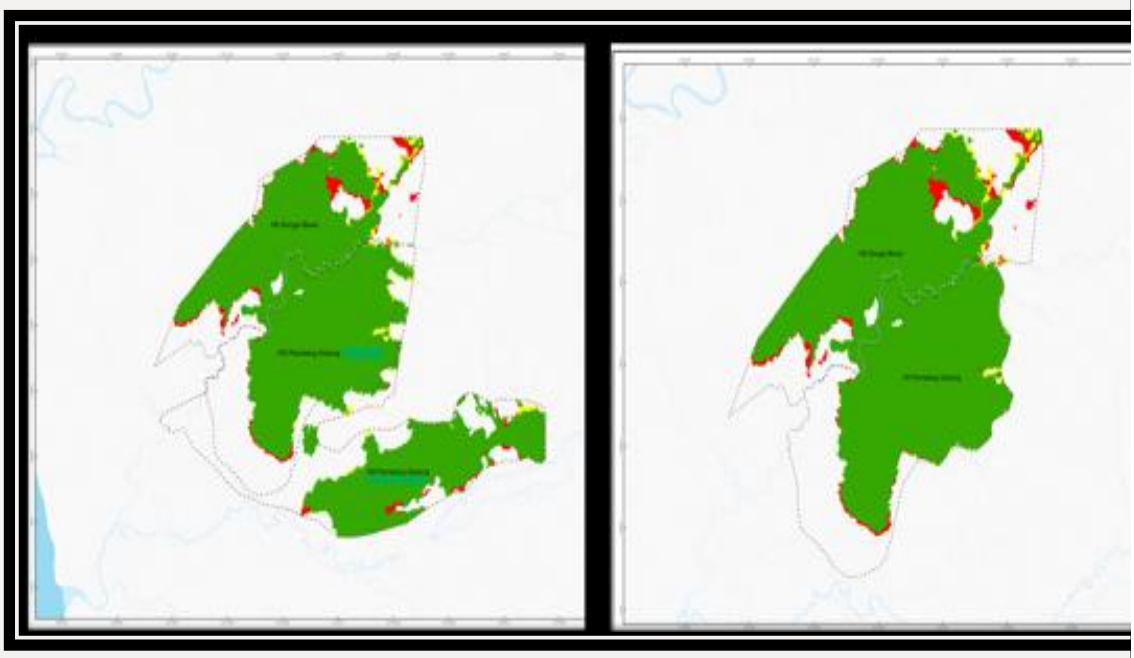


Figure 4: Forest loss in the PG-SB Village forest between 2019-2020 (Red) and 2020-2021 (Yellow). Map (left) depicts the entire PG Village Forest before the new 2021 decree was issued, which removed a large proportion of the PG Village Forest (right).

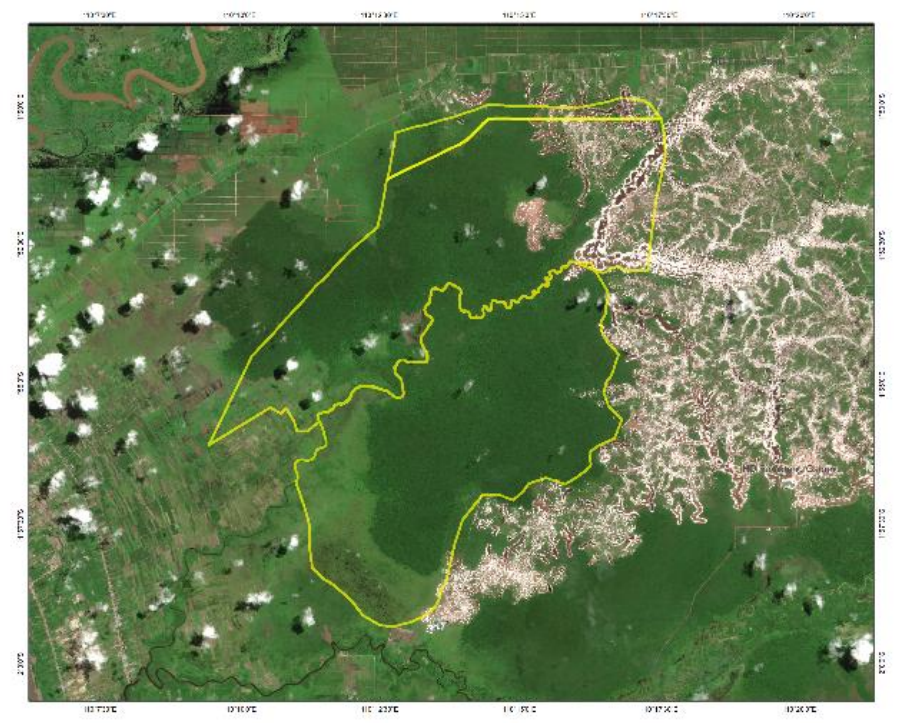


Figure 5: A 2025 satellite image of PG Village Forest (to the south) and SB (to the north), with the spread of illegal mining operations advancing to the east and south of both villages and noticeably affecting a large portion of the north-eastern part of SB Village Forest.

Table 3 Project Boundaries

Location:	Indonesia, West Kalimantan Province, Ketapang District
Geographic Coordinates:	-1.939313, 110.191588
Project Region(s):	1 contiguous region covering 21,241 hectares

Project Area(s):	1 contiguous area covering 7,004 ha
Protected Areas:	None

1.5 Land and Management Rights

Pematang Gadung is a Village Forest, or *Hutan Desa* (HD) in Indonesian. In Indonesia, this type of license means that the community holds all use and management rights.

The Minister of Forestry Decree No. P. 49/2008 on Village Forests defines 'villages' as 'legal community units with clear territorial boundaries and the authority to regulate and manage the interests of local people in accordance with local origins and traditions, and recognised and respected by the Indonesian government'. GR No. 6/2007 defines the legal framework for HD, with procedures and conditions for obtaining an HD license set out in Ministerial Decree No. P. 49/2008.

The Ministry of Forestry (MoF) uniformly defines a 'Village Forest' / HD as a state forest not encumbered by previous rights and managed by a village to improve general village welfare.

The whole project area – 7,004 ha – is under the same land management regime, i.e., a Village Forest licence. Village Forest should be managed sustainably and cannot be converted or cleared; therefore, any kind of agricultural encroachment or mining activities are illegal. Village members can legally extract up to 50 cubic metres of timber per year to fulfil construction needs. In practice, however, the village receives no support and no resources to patrol the forest and deter illegal activities.

Table 3 Land and Management Rights

Project Area	Ownership and user rights status	Evidence
The whole project area is under one management status and ownership type: Village Forest.	All community members have rights and responsibilities associated with managing their Village Forest. While the forest still	A letter from the MoF.

	belongs to the state, the community have customary use and management rights over this area, as well as the obligation to maintain it as forest.	

2 Stakeholder Engagement

2.1 Stakeholder Analysis

2.1.1 Stakeholder Identification

Primary Stakeholders:
The Primary Stakeholders who influence the landscape and will be influenced by this project are the approximately 2,986 PG villagers who live at the margins of the Village Forest and have legal rights to use and manage this area. Within this community, the project will pursue a pro-poor approach and pay particular attention to engaging the following Primary Stakeholder sub-categories:
LPHD: Historically, this entity has been responsible for forest management. Although this entity does not receive a government budget, it remains responsible for forest management. Women's groups: Historically, most local women are excluded from paid work. This project aims to increase opportunities for women in paid work, nursery development and care, replanting activities and general roles in project leadership and decision-making. Youth groups: The project plans to engage younger generations by providing opportunities to increase awareness and skills, as well as accessing education opportunities (both formal and informal) and other services

Elder's groups and religious leaders (particularly the local Imam): The project will support elders to play a role in village-level consultations and decision-making, upholding traditional customs and deliberation-style consensus-seeking methods, such as the *musyawarah*.

Differently abled people (either represented by themselves or by their carers): Particular attention will be paid to avoid the historical exclusion of differently-abled people, ensuring ways to include and engage these members are prioritised.

Households dependent on mining: The project estimates that around 276 households in Pematang Gadung depend on mining; engaging these households will be a project priority.

Secondary Stakeholders:

Tropenbos: an NGO operating in the landscape since 2022. Tropenbos works with Sungai Besar (the neighbouring village forest) communities to incentivise sustainable agricultural practices. They also finance patrols at some locations in Sungai Besar Forest.

Oil palm plantation: neighbouring oil palm plantations and smallholder farmers influence the landscape through their ability to avoid and manage fire risk. Given that plantations are also vulnerable to fires, this project will work collaboratively to support higher capacity in fire risk management to reduce fire risk for the project area.

The MoF: In Indonesia, all forest estates fall under the jurisdiction of the MoF. The project will be implemented in accordance with all relevant MoF regulations.

Mining groups: Although illegal, mining groups are well organised and established. The project will coordinate and communicate with these groups in yearly village-level meetings to explain how the project will develop and provide opportunities for interested miners to participate and transition from mining to sustainable livelihoods strategies.

Table 4 Stakeholder Analysis

Stakeholder Group	Stakeholder Type	Impact	Influence	Engagement

Add a row for each stakeholder group.	Identify whether the stakeholder group is a local stakeholder, primary stakeholder, or secondary stakeholder.	Describe whether the stakeholder group will be positively or negatively impacted by the project and state the expected level of impact (i.e. High, Moderate, or Low)	Describe whether the stakeholder group will positively or negatively influence the project and state the expected level of influence (i.e. High, Moderate, or Low)	Describe if and how the stakeholder group has been and/or will be involved in the project.
LPHD	Primary	Positive (high)	Positive (high)	LPHD has been involved in the project since its inception.
Women's groups	Primary	Positive (high)	Positive (high)	Women's groups such as the fire-fighting group and the ecopolybag production group have been active since the beginning of the project.
Youth groups	Primary	Positive (high)	Positive (high)	Youth groups have engaged through education support, and their participation will continue to grow.
Elder's groups and religious leaders	Primary	Positive (high)	Positive (high)	Elders groups and religious leaders have not yet participated substantially in project development, but will engage in the next phase of development.
Differently abled people	Primary	Positive (high)	Positive (high)	Differently abled people have not yet participated in a substantial way to project development, but will engage once benefits flow into the community.
Households dependent on mining	Primary	Positive (high)	Positive (high)	The project already engages with some of these households, but will engage more substantially in the

				coming phase. The project is currently limited by how many community members can engage in paid roles (patrolling, reforestation, etc.)
Tropenbos	Secondary	Neutral	Neutral (low)	Although coordination was limited in the initial phases of development, more intensive communication and coordination will take place following validation/verification.
Oil palm plantation	Secondary	Neutral	Negative (high)	Although coordination was limited in the initial phases of development, communication and coordination will intensify following validation/verification.
MoF	Secondary	Positive (Moderate)	Positive (high)	YIARI's Chairperson has been maintaining communication with the government and will continue to play this support role for the project.
Mining groups	Secondary	Neutral (discouraging the spread of mining inside village forest borders)	Negative (high)	No concerted efforts have been made to coordinate with illegal mining groups at this stage, but communication will be sought with these groups.

2.1.2 Indigenous Peoples and Local Communities

Table 5: Indigenous Peoples and Local Communities

Indigenous Peoples or local communities.	Rights to land or resources in the project area(s)	Governance structure	Involvement of women and marginalised groups	Engagement
Add a row for each group of Indigenous Peoples or local communities with	Describe the statutory or customary rights to land or resources in the project area(s)	Describe the governance structure and decision-making	Describe the involvement of women and marginalised	Describe how the project will engage the Indigenous Peoples or local

statutory or customary rights to land or resources in the project area(s)		processes of the Indigenous Peoples or local communities	groups in decision-making.	communities, and state whether their representatives have been identified.
All 921 households in Pematang Gadung have customary rights recognised over the 7,004 ha area designated as a Village Forest.	Pematang Gadung village manages and safeguards the area, benefiting from it while maintaining it as forest. Forest clearance is forbidden by law, and the central government retains ownership.	The LPHD, a government-mandated body, oversees governance and is responsible for safeguarding and managing the Village Forest.	Although there is no prerequisite in Indonesian customary law to involve women specifically, the project will ensure women are involved through women-led groups such as The Power of Mama (TPOM) fire-fighting group and sustainable livelihoods activity groups.	There are no indigenous representatives as such, however the project will engage elders, customary leaders, youth groups, women's groups and other differently abled persons.

2.1.3 Disputed Land or Resources

No known land disputes exist in the Project area.

2.2 Project Coordination and Management

Table 6 Responsibility for Project Coordination and Management Functions

Project Coordination and Management Function	Responsible Party/Parties
Stakeholder engagement during project development and implementation	KMPGS and *LPHD*. Members of these two local institutions benefit from ~10 years of experience managing the PG Village Forest. Members of the cooperative will benefit from the expertise

	and support of YIARI advisors with 17+ years of experience engaging, facilitating and supporting stakeholders to co-create, co-develop and co-implement project activities, particularly using agro-ecological/regenerative agricultural techniques.
Ensuring conformance with the Plan Vivo Biodiversity Standard and compliance with applicable policies, laws and regulations	LPHD and KMPGS. Members of the KMPGS will receive support from advisors with 10+ years of experience developing Plan Vivo and Verra (VCS/CCB) projects.
Developing technical specifications, land management plans and project agreements with project participants	KMPGS and LPHD. Cooperative and LPHD members have ~10 years of experience preparing land management plans for government-mandated yearly and longer-term plans, needed to access village finance for infrastructure. KMPGS will also receive support from advisors with 10+ years of experience developing Plan Vivo and Verra (VCS/CCB) projects.
Ensuring that the PDD is updated with any changes to the project	KMPGS. Members of the cooperative will receive support from YIARI advisors with 10+ years of experience developing Plan Vivo and Verra (VCS/CCB) projects.
Registration and recording of management plans, project agreements, monitoring results, and sales agreements	LPHD and KMPGS. Members of the cooperative will receive support from advisors with 10+ years of experience developing Plan Vivo, including drafting project agreements and sales agreements.
Managing project finances and dispersal of income to project participants as described by the benefit sharing mechanism	KMPGS. The cooperative will have transparent, robust financial processes and flows and will benefit from regular audits, the results of which will be shared

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	with all members 1-2 times per year.
Managing Plan Vivo Biodiversity Certificates in the PV Nature Registry	LPHD and KMPGS. Members of the cooperative will receive support from advisors with 10+ years of experience developing Plan Vivo and Verra (VCS/CCB) projects, with specific experience of managing certificates in the Markit registry.
Preparing annual reports and coordinating validation and verification events	KMPGS. Members of the cooperative will receive support from advisors with 10+ years of experience developing Plan Vivo and Verra (VCS/CCB) projects, including preparing annual reports and coordinating validation and verification events.
Securing certificate sales and other means of funding the project	KMPGS. Members of the cooperative will receive support from advisors with 10+ years of experience developing Plan Vivo and Verra (VCS/CCB) projects with specific experience of marketing and selling Plan Vivo certificates.
Assisting Project Participants to secure any legal or regulatory permissions required to carry out the project	LPHD and KMPGS. Land tenure is clear; however, KMPGS will also benefit from advisors with 17+ years of experience handling complex regulatory permissions at the national, provincial and regency levels.
Providing technical assistance and capacity building required for project participants to implement project interventions	LPHD and KMPGS. Members of KMPGS have 8 years of experience implementing fire-fighting, protection and restoration activities, albeit on a smaller scale. Advisors have 17+ years of experience implementing these activities in other landscapes and can support with cross-landscape learning.

Monitoring progress indicators, livelihood indicators and ecosystem indicators and providing ongoing support to project participants	LPHD and KMPGS. Members of the cooperative will receive support from advisors with 10+ years of experience developing Plan Vivo and Verra (VCS/CCB) projects with specific experience setting progress, socio-economic and climate indicators.
Measurement, reporting and verification of carbon benefits	LPHD and KMPGS. Members of the cooperative will receive support from advisors with 10+ years of experience developing Plan Vivo and Verra (VCS/CCB) projects with specific experience in biodiversity monitoring and reporting.

2.3 Project Participants

Table 7: Project Participants (grouped by village, area or region)

Project Participant	Participant Type*	Location of Residence	Typical Land Holding	Land and Natural Resource Use
Add a row for each project participant or group of project participants with similar characteristics	Indicate whether they are Type I or Type II participants*	Describe the participants' location of residence in relation to the project area(s) and project region	Describe the typical area of land owned or managed by each participant	Describe the participants' typical use of their use of land or natural resources within the project region with details of use of hired labour (if any)
Pematang Gadung villagers have customary rights recognised over the 7,004 ha area designated as a Village Forest.	Type 1	The Pematang Gadung village is ~6 km from the Village Forest boundary, separated by	Not all villagers own land, but typically a household may own 1-2 hectares for agricultural	Most households are dependent on agricultural activities, particularly oil palm cultivation or are otherwise

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		agricultural land.	purposes. Legal land ownership is possible outside of the Village Forest, not within it.	dependent on illegal gold mining.

Project Participants:

- **Type I** = *Project Participants* that are resident within the *Project Region*; who manage and use land or natural resources within the *Project Region* for subsistence or small-scale production; and are not structurally dependent on year-round hired labour for their land or natural resource management activities.
- **Type II** = *Project Participants* that do not meet the Type I definition.

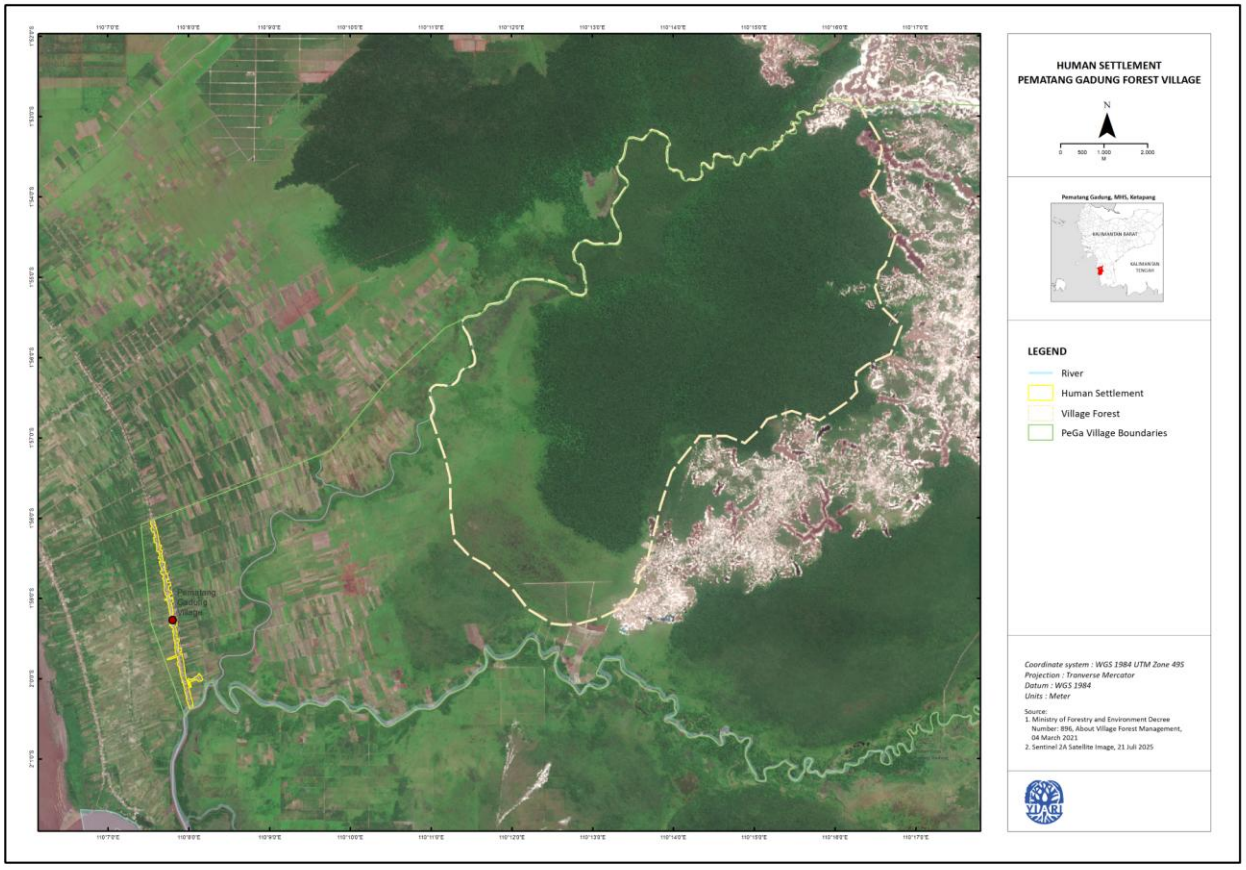


Figure 6: A Sentinel July 2025 map showing Pematang Gadung village human settlements spread along a north-south road (within the yellow border) with agricultural lands visible both west and east of the settlement and its approximate distance to the Village Forest boundary (~6km).

2.4 Participatory Design

Gender inequalities remain pervasive, and special attention will be given to ensuring that women and girls stand to benefit as much as men do from this project. The impacts of habitat degradation, fires and climate change are more intensely felt by women, children and the elderly in this landscape (burning peat significantly increases the risk of acute respiratory infections and pregnancy loss).

These impacts intersect with existing structural inequalities faced by women, who have also been historically excluded from paid employment. The project will prioritise women's participation and entrepreneurship by supporting an all-female fire-prevention and fire-fighting team and an all-female weaving team (making seedling pots for peat restoration). It will also ring-fence at least 50% of learning opportunities for women and girls, disaggregate data, and monitor impacts accordingly.

As described in Section 2.1, targeted efforts will be made to encourage the participation of women, youth, older generations, and differently-abled villagers (either represented by themselves or by their carers). To promote the involvement of these historically marginalised community members, separate Focus Group Discussions (FGDs) will be conducted for each of these groups, so that specific needs, concerns, and priorities can be identified and addressed.

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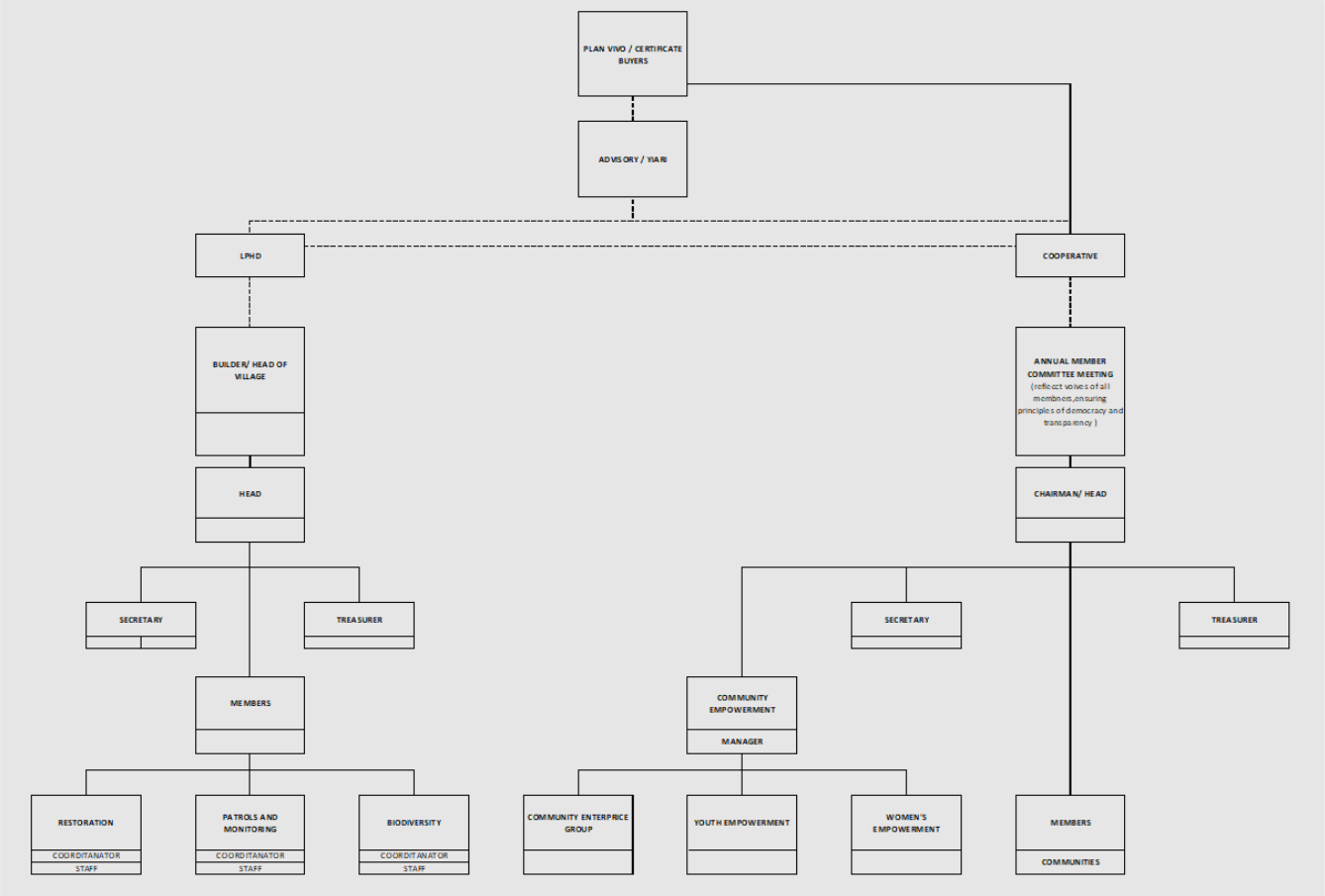


Figure 7: KMPGS Cooperative structure

2.5 Stakeholder Consultation

2.5.1 Design Phase Consultations

Describe the stakeholder consultations that have taken place during the design phase of the project, including details of i) how and when each of the stakeholder groups listed in Section 2.1.1 was informed of the project and given the opportunity to provide feedback on the project interventions and project logic; and ii) any feedback received from stakeholders on the project interventions and project logic.

Consultations and awareness-raising efforts were conducted in:

1) 22nd February 2024: An in-person meeting between Plan Vivo and village representatives (facilitated by YIARI) at Pematang Gadung Village where Plan Vivo explained the core principles of biodiversity credit projects.
2) September 2024: An in-person meeting between YIARI staff and village representatives to explain and seek approval and support from the community to raise funding from the UK

government (Biodiversity Challenge Funds) for the development of a Plan Vivo Nature project. Support letters were obtained from the KMPGS, the LPHD and TPOM.

3) February 2025: During an online meeting between Plan Vivo, YIARI and community representatives, community members had the opportunity to understand and ask questions about the steps involved in certifying a Plan Vivo Nature project.
4) June 2025: An in-person meeting (and follow-up calls and messages) to discuss the purpose and draft content of the PIN and obtain the perspective of and input from community members.
5) October 2025: An in-person workshop conducted in Pematang Gadung where village representatives were able to receive training on the technical aspects of device deployment and data collection and understand in more detail what developing a Plan Vivo Nature project looks like in terms of the kinds of activities and timelines involved.

YIARI staff and village representatives meet on a weekly basis to raise and answer questions and deepen community members' understanding of how Plan Vivo Nature projects are run.

2.5.2 Stakeholder Engagement Plan

1) Consultations with LPHD and KMPGS members have been ongoing since before the project start date in 2024 and 2025. Consultations take place mainly through informal meetings between YIARI staff based in the village and LPHD and KMPGS members.
2) Consultations involving village-level stakeholders will take place during the whole development period and intensify in 2026 and especially 2027 in the build-up to validation and credit issuance. While early engagement is vital to refine benefit-sharing and grievance mechanisms, the two-year gap before funds reach the village remains an obstacle to meaningful wider participation.
3) Hard and soft copies of project documentation, including the summary Project Description Document, validation audit reports and any other key documents (in Bahasa Indonesia) will be made available to any stakeholder interested in reading through the correspondence procedure.
4) YIARI staff will run FGD sessions to help village stakeholders understand the monitoring results and clarify project progress, next steps, and the timeline for credit issuance. Two weeks before each meeting, the village facilitator will announce the session, taking extra care to inform marginalised households.

5) Separate engagement opportunities will be set up with private sector and government partners.

2.6 Free, Prior and Informed Consent (FPIC)

2.6.1 FPIC Legislation

Table 8: National Legislation and International Standards on FPIC

Legislation/Standard	Relevance to Project	Compliance Measures
UNDRIP	**Rights Protection:** Protects the Melayu community's traditional land rights, cultural heritage, and resources. **Self-Determination:** Empowers the village to manage their forest through the KMPGS. **Resource Sovereignty:** Secures local control over coastal peatlands against oil palm expansion.	**FPIC Integration**: Implements early community-wide consultations via the KMPGS and YIARI before certificate issuance. **Informed Consent:** Ensures co-designed benefit-sharing plans guarantee the village's right to veto or accept activities. **Autonomous Management:** Uses local forest patrollers and restorers to execute and govern the project directly.
ILO 169	**Livelihood Security:** Addresses the economic transition of the 30% of households dependent on illegal mining. **Decent Work:** Targets dangerous working conditions by creating safe, alternative green employment.	**Safe Alternatives:** Replaces hazardous mining with paid patrolling, seed cultivation, and fire-risk mitigation. **Inclusive Engagement:** Includes >50% of households in the long-term economic benefit framework. **Capacity Building:** Provides formal skills training, safety

	Gender Equity: Promotes fair labour practices by dedicating 50% of restoration and 80% of fire-prevention roles to women.	education, and youth development opportunities.

2.6.2 FPIC Process

This Project will design and implement all project activities in participation with our communities and based on full consultation and FPIC principles. The Project understands FPIC to be an on-going process, not one that reaches an end-point. As such, the Project commits to high levels of engagement and consultation to inform adaptive management and ensure meaningful benefits to participating communities throughout the duration of the project.

The project applies the principle of Free, Prior and Informed Consent (FPIC) and recognises FPIC as an ongoing process without a firm end-point, evolving in response to the dynamics of the local context. Accordingly, the project will use several approaches to ensure that communication and consultation remains active throughout its implementation:

1. A village facilitator / focal point will report monthly to project staff on progress, issues encountered, and the needs and wishes of vulnerable groups and wider community. These reports will be retained in the project filing system and used to inform formal and less formal FGDs and other community meetings. Once these points have been confirmed with the wider community, he resulting action points will be incorporated in the project's socio-economic work plan.
2. Project staff will conduct monthly or bi-monthly check-ins with community representatives to discuss a variety of project components, including progress in patrolling, reforestation and biodiversity monitoring.
3. A functional Grievance Redress Mechanism will be essential to maintaining communication channels open and ensuring that community members feel their concerns and grievances are heard and addressed within reasonable timeframes.

As a first step, the project will adopt a range of methods to engage villagers:

- FGDs will be held for each interest group separately within the community, ensuring the needs (preferred times, venues and other conditions and adjustments) are discussed in advance and adopted to maximise inclusion;
- Visual aids such as posters will be displayed in common spaces;

- Religious representatives will be engaged to alert villagers of the opportunity to join the cooperative; and
- Specific sub-village level meetings will be held.

Post-meeting evaluations will be used to gauge participants' understanding. If respondents who have attended events demonstrate insufficient knowledge, additional events will take place to ensure that the understanding of proposed activities is close to 100%. Only then will the cooperative hold discussions and votes to assess support for the project.

2.6.3 Initial FPIC

1) 22nd February 2024: An in-person meeting between Plan Vivo and village representatives (facilitated by YIARI) at Pematang Gadung Village where Plan Vivo explained the core principles of biodiversity credit projects.
2) September 2024: An in-person meeting between YIARI staff and village representatives to explain and seek approval and support from the community to raise funding from the UK government (Biodiversity Challenge Funds) for the development of a Plan Vivo Nature project. Support letters were obtained from the KMPGS, the LPHD and TPOM.
3) February 2025: During an online meeting between Plan Vivo, YIARI and community representatives, community members had the opportunity to understand and ask questions about the steps involved in certifying a Plan Vivo Nature project.
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5) October 2025: An in-person workshop conducted in Pematang Gadung where village representatives were able to receive training on the technical aspects of device deployment and data collection and understand in more detail what developing a Plan Vivo Nature project looks like in terms of the kinds of activities and timelines involved.

Routine discussions between YIARI staff and village representatives take place on a weekly basis; these are used to raise and answer questions and deepen community members' understanding of how Plan Vivo projects are run.

3 Project Design

Baselines

3.1 Baseline Scenario

As of June 2026, the Village Forest includes 5,007.68 hectares of primary forest, 282.75 ha of restored forest, and 134.85 ha of deforested peat from gold mining in the east and north-east of the village forest boundary. The remaining land, 1,578.72ha of deforested peat, was burned in the El Niño fires of 2015 and 2019 and around 100ha of this degraded land in the southernmost part is converted to oil palm, advancing from the west and south-west of the village forest border.
In the absence of the project, deforestation and forest degradation will continue advancing, resulting in the complete conversion of this forest. The surrounding landscape has been converted, and the two remaining adjacent village forests are in the process of being converted due to illegal gold mining.

Although there is an obligation to keep the Village Forest as forest, the resources, regulatory frameworks, incentives, and systems in place are insufficient to stop both mining and oil palm from encroaching on the village forest. Only GAKKUM, a special agency within Indonesia's MoF, can enforce the law. Given the volume of environmental crime nationwide, this agency can focus only on a subset of cases.

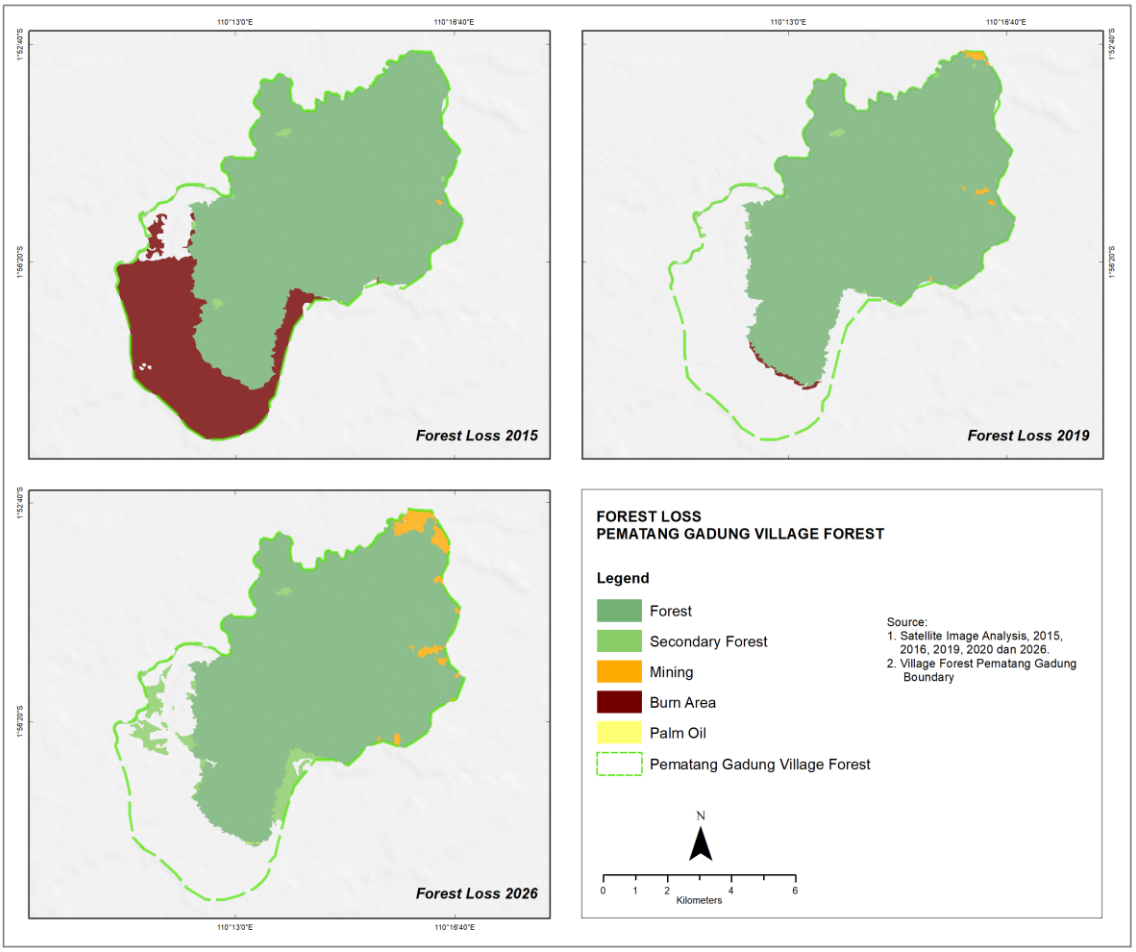


Figure 8: Forest loss in Pematang Gadung between 2015 and 2026

3.2 Biodiversity Baseline

The 7,004 ha Village Forest of PG Village is one of the most significant coastal peat swamp forests left in West Kalimantan and is home to the Critically Endangered Bornean orangutan. A highly diverse site within the 'Borneo peat swamp forests' ecoregion it supports over 133 bird species, 59 mammal species, 11 amphibians and 36 reptiles. Some areas of the peat have been drained due to additional logging, opening of canals and other anthropogenic activities. Drained forest areas were burnt for the first time in 2015 during the prolonged El Niño-induced dry season, in 2019 and in 2026. Despite these threats, it is an outstanding biodiversity hotspot. Among the observed wildlife species, 28 are protected under Indonesian Government Regulations (Minister of Environment and Forestry Regulation Number P.106), with 16 species classified as Endangered on the IUCN Red List. The hook-billed bulbul (*Setornis criniger*) emerged as the most frequently encountered species, with 136 sightings, followed by *Psilopogon duvaucelii* and *Cyanoderma bicolor*.

At the start of the project, approximately 75.5% of PG Village Forest is forested, comprising 71.5% primary forest and 4% restored forest. The area is predominantly lowland peat-swamp forest and retains high biodiversity value, although illegal mining, timber extraction, and fire have affected parts of it.

The Village Forest provides important habitat for threatened and protected wildlife, including an estimated ±200 Bornean orangutans (CR), as well as proboscis monkeys EN), Bornean agile gibbons (EN), and numerous threatened bird and freshwater species. Forest structure, connectivity and peat hydrology are important for maintaining these species and the wider peat-swamp ecosystem.

In the absence of the project, the area is expected to remain under the existing Village Forest management. However, with limited resources to manage the area, current threats are expected to persist, particularly illegal mining, fire during prolonged dry periods, as well as oil palm expansion. Therefore, in the absence of project activities, forest is likely to be converted at historical rates

Under this baseline scenario, ecological condition is expected to decline. Continued disturbance will result in forest destruction, reduce forest quality and connectivity, alter vegetation and hydrological conditions, and reduce habitat and resources for wildlife. This is expected to place increasing pressure on Bornean orangutans and other forest-dependent species, particularly those sensitive to disturbance or dependent on intact peat-swamp forest.

3.3 Socioeconomic Baseline

3.3.1 Initial Socioeconomic Status

The community is ethnically and religiously homogeneous (100% Melayu, 100% Muslim). Approximately 921 households are resident within the administrative borders of PG village. The community manages the 7,004 ha Pematang Gadung Village Forest , which faces fire and encroachment pressures from illegal mining sites, oil palm smallholdings, and plantations. The average household size is five members. The gender roles are strongly differentiated with most women staying home to carry out unpaid domestic tasks and childcare responsibilities, and most men looking for paid employment outside the home. Livelihood estimates indicate that approximately 55% of households depend on agriculture, 30% on mining, 10% on trading, 5% provide transportation services, 2% work in construction

and 17% in other sectors (YIARI unpublished report, 2024). However, an estimated 30% of households rely on full-time illegal artisanal gold mining, with miners reportedly earning an average of IDR 1,800,000 per month. Approximately 8% of West Kalimantan's population lives below the poverty line, although in rural areas this number is higher.

In the absence of project activities, mining dependence would likely increase among local households and persist for approximately 10 years, based on current rates of conversion and land availability. As mineral reserves are gradually depleted, households would need to find other sources of income. In the meantime, continued exposure to harmful chemicals and increased fire risk would likely lead to more cases of skin and respiratory diseases. Mining would also adversely affect forest cover and freshwater ecosystems by increasing sedimentation and pollution, while diminishing the availability of fish and shellfish that support local livelihoods. Uncontrolled fires would cause immediate harm to terrestrial flora and fauna, leaving most species with little to no opportunity to migrate. As climate change lengthens the dry seasons, uncontrolled fires and their associated impacts are expected to become increasingly frequent and more severe. Without this project, an acceleration in forest degradation rates and associated biodiversity losses is expected. Without project, particularly fire-prevention, air pollution would also significantly increase, affecting human health negatively through respiratory illnesses, pregnancy loss and disrupting education through school closures.

3.3.2 Expected Socioeconomic Change

The project aims for all mining-dependent households will transition to other livelihoods. In the short term, miners are expected to secure employment in restoration, monitoring, and patrolling-based activities, while younger household members will gain access to additional education opportunities. Together, these measures are expected to reduce future dependence on natural resource extraction.

3.4 Environmental Baseline

3.4.1 Initial Environmental Conditions

The project area is a secondary peat swamp forest, logged selectively in the 80s and 90s. Land conversion, mining and fires are the three main threats affecting this area, with land clearance being the only main threat up until the early 2000s and mining gradually increasing from then onwards. In 2015 and 2016, a large fire swept across the forest, burning about 30% of the forest (~2,200 ha of the total 7,004 ha). Every seven to eight years, the

project expects to experience higher-than-normal fire-risk as a result of El Niño. Going forward , the project expects dry seasons to become longer, increasing fire risk.

Currently, low-density forest covers about 50% of the target area, medium-density forest adds up to about 15% while scrubland (burnt in 2015 and 2019) amounts to about 23%, and the remaining 12% is composed of mining, mixed agriculture and cleared forest.

Main carbon pools:
Above Ground Biomass: Above Ground Biomass (AGB) stock in the project area amounts to a conservative estimate of approximately 1 million tC. Below-ground biomass - Carbon reserves stored in peat soil are estimated based on the assumption of a bulk density value of 90 kg/m3 (0.9 g/cc) and a carbon mass content of 50%. Carbon reserves found in HD Pematang Gadung are estimated at over 20 million tons.

3.4.2 Expected Environmental Change

Under the baseline scenario, forest cover will disappear at a rate of approximately 0.33% per year. In El Niño years fires are expected over approximately 2,000ha hectares of recently restored or degraded and waiting to be restored land within the village forest. Environmental conditions expected to change are identified in 3.3.1.

3.5 Project Logic

Table 10 Project Logic

	Description	Assumptions/Risks
Outcomes Cooperative-led biodiversity certification increases livelihood opportunities linked to nature, improves local wellbeing and protects high-biodiversity coastal peatland and resident endangered species populations.		
Biodiversity Benefit	The conservation of this site allows populations of sun bear (*Helarctos malayanus*), Bornean gibbon, Bornean	A: Patrol and monitoring systems will effectively continue to detect and deter illegal activities, leading to

	orangutan, proboscis monkey, binturong, sambar deer (*Rusa unicolor*), Storm's stork, bearded pigs (*Sus barbatus*), Bornean clouded leopard, false gharial, five hornbill species and dozens of other threatened species to remain stable. Restoring 1,500 ha of burnt peatland will substantially increase habitat for these and other species, improving population viability.	a reduction in the rate of peatland loss. A: Engagement and cooperation from local communities, landowners, and stakeholders in the areas being patrolled are maintained. A: Local communities will continue to be actively involved in reporting and preventing illegal activities. A: External threats (e.g. illegal hunting) and large natural disasters affecting wildlife do not suddenly increase in the project area.
Socioeconomic Benefit	Job creation and multi-dimensional poverty reduction for ~500 households. These benefits will include monetary aspects of wellbeing (income increase and job stability) and/or increased opportunities to access education, trainings to support sustainable agricultural practices and to increase capacity. Improved governance participation levels, equity and inclusion. Improved access to formal and non-formal education opportunities. Reduced exposure to harmful air and water pollution. Sustained access to fish and shellfish through halting the spread of mining and the degradation of freshwater ecosystems.	A: Continued local engagement will be essential to the successful implementation of all activities. A: Job creation will offer a dignified alternative to mining and oil palm cultivating in the area, thus, reducing the pressure on the peatland forest. In addition, inclusive consultations, transparency and an equitable benefit-sharing mechanism will be central to sustaining engagement.

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	Communities are free to make choices about their future, report higher levels of wellbeing (both monetary and non-monetary), depend less on extractive uses of natural resources and enjoy better health for themselves and their families.	
Environmental Benefit	The conservation of peatland forest will allow better water quality, more favourable micro-climatic patterns, higher water table and therefore reduced risk of fire. Restoring degraded peat in PG enhances ecosystem services for people and habitat quality for wildlife. Increased climate resilience by conserving and restoring peat ecosystems. This project ensures the water table does not drop further and that the fire-prone degraded area covered in grassland/shrubs shrinks over time, making the whole area more resilient to future fires. Degraded peat is a significant source of CO^2 emissions and other harmful greenhouse gases. By protecting peat from mining, burning, and other harmful activities; slowing of the subsidence rate; maintaining the water table; and restoring already degraded peat with native species,	A: Restoring degraded peat in PG enhances ecosystem services for people and habitat quality for wildlife. A: By restoring peat, the water table will rise. Bare peat will be replanted with native species, thereby decreasing vulnerability to fire and increasing the resilience of the ecosystem as a whole. A: Saplings will continue to adapt well to their environment and a changing climate.

	the project will avoid emitting hundreds of thousands of tonnes of CO^2-e over the project lifetime.	
Outputs and activities		
Output 1	Fire risk across 7,004 ha of coastal peatland is kept low, resulting in reduced forest loss rates (as compared to a 0.09% forest loss baseline).	Risk: Prolonging of dry seasons could mean this output becomes always more difficult to achieve. This risk will be mitigated by raising awareness and capacity of as many stakeholders as possible, increasing the local level of preparedness.
Activity 1.1	Support and mentor the all-female community-led Fire Patrol Team ('The Power of Mama' - TPOM) and other fire-fighting teams.	A: Continued engagement of TPOM members.
Output 2	Improved local governance, particularly regarding illegal mining and burning activities.	Risk: Local corruption within the city of Ketapang, particularly in the illegal mining sector, poses a challenge. The combination of permanent post establishment, daily patrols, and new attractive livelihood opportunities will mitigate this risk.
Activity 2.1	Train community members in SMART, drone usage, satellite image inspections and Global Forest Watch tools.	A: Continued engagement of LPHD members.
Activity 2.2	Implement Integrated Forest Crime Alert System (IFCA) to improve forest protection and monitoring.	A: Continued engagement of LPHD members.
Activity 2.3	Provide ongoing mentoring for new and existing Patrol Team members to carry out effective forest patrols and monitoring.	A: Continued engagement of LPHD members.
Activity 2.4	Support statutory reporting of illegal activities to local authorities.	A: Continued engagement of LPHD members.
Activity 2.5	Participatory review of KMPGS structure and governance (for effectiveness, accountability, transparency, inclusivity).	A: Continued engagement of KMPGS members.

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Output 3	Around 30% of PG households depend on regenerative livelihoods, resulting in better-quality employment, improved multi-dimensional wellbeing and poverty reduction.	A: Communities remain supportive of conservation efforts and sustainable livelihoods strategies. Risks: A risk to continued engagement is that local governance will be insufficiently transparent, open and accountable to build trust amongst members, another risk comes from extractive market forces / demand for gold. To address these risks, open communication, accountability, and transparency will be ensured through a grievance mechanism. Cooperative members will receive support and training on governance, financial management, and Health, Safety, Security, and Environment.
Activity 3.1	Train and mentor local cooperative members and other community members in forest restoration.	A: Continued engagement of KMPGS members.
Activity 3.2	Train and mentor cooperative members and other community members in biodiversity monitoring	A: Continued engagement of KMPGS members.
Activity 3.3	Support agriculture-based sustainable livelihoods initiatives, also through micro interest-free loans	A: Continued engagement of KMPGS members.
Activity 3.4	Complete Plan Vivo Nature certification	A: Continued engagement of YIARI advisors and community members; continued good coordination between project, analysis partner, auditor and Plan Vivo.
Activity 3.5	Marketing and sales of PV Nature credits	Risk: The main risk is a nascent biodiversity credit market; this risk will be mitigated through engagement with other projects,

		exploring opportunities with brokers and aggregators, engaging with existing and prospective donors and other potential market actors 2 years in advance of credits becoming available to issue;
Output 4	~1,500 ha of degraded peatland are restored.	A: Continued local engagement will be essential to the achievement of this output.
Activity 4.1	Support KMPGS cooperative and other community members to collect wild seeds, germinate and replant native peat saplings.	Risk: High seedling mortality rate due to increasingly longer drought seasons. This risk will be mitigated by restricting planting to the start of the wet season and by planting older seedlings, thus giving seedlings the best chance of survival possible.
Activity 4.2	Monitor seedling survival and replant as needed.	A: Continued local engagement

A succinct project logic is formulated as follows:

- IF local fire prevention efforts discourage the use of fire in agriculture and keep the frequency and extent of fires low;
- IF 1,500ha of burned peat are restored;
- IF through integrated monitoring and systems, permanent posts and patrols, mining and other illegal activities are effectively identified and deterred;
- IF growing regenerative livelihoods linked to nature are both well-paid and less risky than illegal mining;
- IF multi-dimensional wellbeing increases through access to education, knowledge, employment and other opportunities;
- IF biodiversity certification is successful in securing financial flows for 'green jobs' in inclusive, equitable, transparent and sustainable ways at scale.

THEN

- Mining and other extractive livelihoods will decrease in favour of regenerative ones that protect human and planetary health;

- Target peatlands will maintain their critical ecosystem services; AND
- Threatened wildlife populations will remain stable.

3.6 Project Activities

Table 9 Project Activity Summary

Project Intervention	Project Activities	Inputs
Conservation and restoration		
Protection (from fire)	-Support and mentor the all-female community-led Fire Patrol Team (TPOM). -Conduct Integrated Fire Prevention training (fire control and mitigation, SMART, drones for land monitoring) for Fire Patrol Team members, TPOM. -Conduct weekly patrols in adjacent agricultural areas to increase awareness of the dangers of using fire to clear vegetation, while using drone footage for early hotspot detection. -Fire-fighting when necessary	Finance to cover training opportunities, finance to purchase fire detection and fire-fighting equipment, finance to cover salaries and benefits, fuel and consumables.
Protection (from encroachment and mining)	- Train the LPHD and other community members in SMART, drone usage, satellite image inspections and Global Forest Watch tools. - Implement IFCA to improve forest protection and monitoring. -Establish demarcation / 'hutan desa' signs on the forest border - Establish permanent posts in high-risk areas. - Provide ongoing mentoring for LPHD Patrol Team and other community members to carry out effective forest patrols and monitoring.	Finance to cover training opportunities, finance to purchase patrolling equipment and uniforms, finance to cover salaries and benefits, fuel and consumables. Finance to cover permanent post construction. Finance to cover erection of signage and other forms of demarcation

	- Support statutory reporting of illegal activities to local authorities. - Human rights training.	
Restoration	-Train and mentor KMPGS cooperative members and other community members in forest restoration. -Train and mentor KMPGS cooperative members in biodiversity monitoring. - Replanting approximately 1,500 hectares with native peat species, such as: *Syzygium zeylanicum, Syzygium caudatilimbum, Dillenia excelsa, Cratoxylum arborescens, Ilex cymosa, Tristaniopsis merguensis, Vatica pauciflora, Melaleuca sp., Actinodaphne* sp., *Lagerstroemia* sp., *Canthium* sp., *Alstonia* sp., *Barringtonia* sp., *Ardisia* sp., *Artabotrys* sp., *Ardisia* sp., *Ixora* sp. & *Litsea* sp.	Finance to cover training, finance to purchase equipment and field supplies, finance to cover salaries and benefits, fuel and consumables. Finance to cover restoration camp maintenance. Finance to cover seed collection or purchase, nursery establishment, planting, and monitoring.

3.7 Additionality

Table 11 Additionality Assessment Summary

Project Intervention	Main Barriers	Activities to Overcome Barriers
Conservation and restoration The project will conduct patrols to protect ~5,000 ha of Village Forest from encroachment (fire/gold mining/encroachment) and will replant peatland species over ~1,500 hectares of degraded peatland. It will monitor 4 taxonomic groups (insectivorous bats, non-flying mammals, trees and birds).		

	Finance: Insufficient financial resourcesto develop the project.	Darwin Initiative funding alongside other finance will be secured to developthe project and oversee ongoing project management.
	Technical: Lack of capacity to initiate project development processes and activities.	Staff recruitment and capacity strengthening will be undertaken, including targeted skills development for the project coordinator. Training will also be provided to LPHD and KMPGS cooperative members, and site coordinators on biodiversity inventory methods, human rights and approaches to reducing inequality, strengthening their capacity to effectively initiate and implement project activities.
	Institutional/political: LPHD is responsible for monitoring and patrolling the Village Forest but lacks sufficient funding to fulfil this role. Law-enforcement authority remains with the central government. Lack of funding and widespread disregard for national law has resulted in insufficient law enforcement.	Project funding will support project interventions and activities that protect the Village Forest and avoid it from being converted illegally.
	Ecological: Widespread environmental degradation, such as soil erosion,	The project will support activities that maintain and restore the peatland ecosystem and enhance

	declining water quality, increased pollution from the use of chemicals, fertilisers, and weed killers, digging canals, lowering of the water table and associated CO^2 emissions. Increased likelihood of fires.	biodiversity.
	Social: Poor organisation and mobilisation of local groups.	KMPGS cooperative and LPHD members will participate in capacity-building events.
	Market: Poor market access for biodiversity credits	The project will market credits through content creation and work with brokers and buyers.

3.8 Proposed Biodiversity Monitoring

Table 12 Biodiversity Monitoring Tool(s)

Selected Biodiversity Monitoring Tool	Taxonomic Groups(s) the Biodiversity Monitoring Tool will target	The reason why this tool has been selected	Considerations for PV Nature when selecting and monitoring these groups in the Project Region
Required Target Groups			
Acoustic Monitoring	Birds	Required under PV Nature methodology (terrestrial).	Several groups of migratory birds occur here; therefore, monitoring will need to occur in the dry season.
Nested vegetation plots, High-Resolution Imagery and local botanists	Trees	Required under PV Nature methodology (terrestrial).	Tree surveys and tree identification cannot be fully automated. They

			require the use of local botanists.
Additional Recommended Target Groups			
Camera Traps	Non-flying Mammals	Fits data collection requirements for tropics and taxonomic groups listed. The project area is renowned for numerous threatened mammal species (including the Bornean orangutan, the species fulfilling the project's KBA requirement).	Most of the known EN and CR species occurring in this landscape are mammals and can be monitored through camera traps.
Acoustic Monitoring	Insectivorous bats	Fits data collection requirements for tropics and taxonomic groups listed. Bats are well - known ecosystem indicators.	Monitoring should account for seasonal fluctuations in temperature and rainfall.

RISK MANAGEMENT

3.9 Environmental and Social Safeguards

3.9.1 Environmental and Social Screening

Table 13 Environmental and Social Risks

Risk Area	Likelihood (1-5)	Magnitude (1-5)	Significance (low, moderate, severe, high)
Vulnerable Groups	2	1	Low

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Gender Equality	1	1	Low
Human Rights	2	2	Low
Community, Health, Safety & Security	2	3	Low
Labour and Working Conditions	2	2	Low
Resource Efficiency, Pollution, Wastes, Chemicals and GHG emissions	1	1	Low
Access Restrictions and Livelihoods	2	2	Low
Cultural Heritage	1	1	Low
Indigenous Peoples	2	2	Low
Biodiversity and Sustainable Use of Natural Resources	1	1	Low
Land Tenure Conflicts	2	2	Low
Risk of Not Accounting for Climate Change	3	3	moderate
Other – e.g. Cumulative Impacts	1	1	Low
Overall Project Risk	22	22	

Considerations following comments at PIN stage:

Land-tenure conflicts are unlikely in this project, both in the mining area and the restoration area, due to the widely known status of the land. Although Tropenbos, an NGO is working to support patrols in the neighbouring village of Sungai Besar, there is no overlap in patrolled areas.

Risk of Not Accounting for Climate Change – it remains difficult to predict the exact consequences of climate change on the project other than increasingly prolonged dry seasons and related increased fire risk. The Project will mitigate this by increasing capacity in fire prevention and fire-fighting. The Project will intensify fire-prevention activities, train other actors in the landscape and restore peat to increase its overall resilience to fire.

Biodiversity and Sustainable Use of Natural Resources – It is unlikely that poaching will take place during project activities – hunting in these villages is not commonplace; a number of species, including forest pigs, primates and many others, would not be considered in line with religious practices and belief systems.

Access restrictions and livelihoods – Since PIN stage and complementary to employment in patrolling, fire-prevention and wildlife monitoring, the Project is now starting to offer small interest-free loans to villagers who are ready to develop their businesses. This programme builds on 3 years of experience in an adjacent landscape.

Labour and working conditions – there is no risk that any of the project activities will be linked to any forced labour, child labour or any other forms of harmful labour. All involvement in project activities is purely voluntary, where the number of villagers wanting a job is higher than what the project can offer. In line with Indonesian law, the project will offer employment to people of 18 or over.

3.9.2 Environmental and Social Assessment

Geographic scope and socio-economic context: The 7,004 ha Pematang Gadung Village Forest in Kecamatan Matan Hilir Selatan, Ketapang District (-1.939313, 110.191588), together with its wider area of influence: the surrounding 21,241 ha coastal peatland landscape, the administrative territory of Pematang Gadung village (~921 households), and adjacent land uses (illegal mining sites, oil palm smallholdings and plantations) that drive fire and encroachment pressure. The average household is 5 and strongly gendered, with almost all women staying home to carry out unpaid domestic tasks and childcare responsibilities and most men looking for paid work outside the home. An estimated 30% of households depend on full-time illegal artisanal gold mining; ~10% depend on part-time mining and other activities, ~55% depend on farming, predominantly oil palm, and an estimated ~5% of households depend on small shops/businesses and provide services to their community (health/education/etc). Most villagers are educated to primary (50%) or middle school (30%) level, and literacy rates are high at 80%. The assessment found that the highest poverty rates are amongst farmer households, but that the uncertainty, illegality, exposure to disease and physical toll of mining increases the vulnerability of mining-dependent households. Overall, households depend heavily on natural resources, with 100% relying on local water supply and an estimated 60% supplementing other livelihood activities with subsistence fishing and shellfish collection from inside the Village Forest. These ecosystem services, together with threatened wildlife species are being endangered in particular through illegal gold mining operations and uncontrolled fires.

Activities assessed. Fire-risk mitigation and fire-fighting; daily patrolling of high-risk mining areas, including permanent patrol posts and monitoring via Global Forest Watch alerts, satellite imagery, GIS and drones; monthly transect-based biodiversity monitoring; restoration of ~1,500 ha of degraded peatland with native species (seed collection, nurseries, planting); and the cooperative governance, employment and benefit-sharing arrangements underpinning them.

Risks and impacts assessed. Livelihood and income effects, particularly for the ~276 mining-dependent households; equity and transparency of benefit-sharing; inclusion of vulnerable and disadvantaged groups (women, youth, elders, differently-abled residents, poorest households); gender dynamics and workload; occupational health and safety; in-migration; restoration failure and climate-driven fire risk; biodiversity, habitat and ecosystem services. Each was rated against the criteria in Section 2.

Reference frameworks. National: Government Regulation No. 6/2007 and MoF Decree No. P.49/2008 (Hutan Desa rights and obligations); MoEF Regulation No. P.106/2018 (protected species); Presidential Regulation No. 98/2021 and MoEF Regulation No. 21/2022 (carbon pricing); Law No. 4/2023 (financial sector / domestic carbon market). International: IUCN ESMS (2016) and its ESIA Guidance Note; World Bank Environmental and Social Framework (2017), Standards 1-10; Plan Vivo PV Nature Environmental and Social Safeguards and the Plan Vivo Environmental and Social Policy Framework. The Plan Vivo exclusion list was screened with no triggers, and it was confirmed that the Melayu communities of Pematang Gadung do not meet the criteria for Indigenous Peoples under Indonesian law or international standards, so that Standard is not triggered.

Safeguard plans developed. An Environmental and Social Management Plan setting mitigation measures, responsible parties, timing and monitoring indicators for each identified risk; a Stakeholder Engagement Plan and FPIC process; and a Grievance Redress Mechanism accessible to all groups. Although the PDD includes a benefit-sharing mechanism, adjustments may be made during the 2-year wait between validation and issuance through ongoing FPIC.

Methods

Assessment criteria. Significance was rated using the IUCN ESMS likelihood-magnitude matrix. Likelihood was scored 1-5 (very unlikely to occur → common occurrence) and magnitude 1-5 (negligible → severe), with magnitude judged on receptor sensitivity, severity of the impact, expected duration and scale, and reversibility. The two scores combine into an overall rating of Low, Moderate, Substantial or High, adjusted for whether accepted good practice exists to manage the impact and whether the cooperative and its partners have experience applying it. Mitigation followed the mitigation hierarchy — avoid first, then minimise, then compensate for residual impacts — with each measure tested for technical and operational feasibility, cultural adequacy and long-term sustainability.

Evidence and sampling. Secondary sources (Village Forest licence documents, government and provincial statistics, IUCN Red List and KBA criteria) were combined with pre-baselining biodiversity data from the project area: six 4-km line transects yielding 2,450 wildlife observations across 145 species (2023); 20 camera traps yielding 1,026 observations; land-cover, fire-scar and mining-extent analysis from satellite imagery, Global Forest Watch alerts and drone verification; and household livelihood profiling. Social sampling was purposive and stratified by livelihood group, sex, age and vulnerability rather than randomised, so that the groups most likely to be affected — mining-dependent households and those historically excluded from paid work and decision-making — were reached directly. Biodiversity sampling was systematic, using fixed transects and a camera-trap grid repeated seasonally to account for migratory species and the dry-season burning cycle.

Consultation. Separate FGDs were held for each interest group — women, youth, elders and religious leaders, differently-abled residents and their carers, and mining-dependent households — with timing, venue and accessibility arrangements agreed in advance to remove barriers to attendance. These were complemented by sub-village meetings, posters in common spaces, engagement of religious leaders, and cooperative-level *musyawarah* deliberation. Post-meeting evaluations tested participants' understanding, and sessions were repeated where understanding was insufficient before any vote on support for the project. Findings from these discussions informed both the risk ratings and the design of mitigation measures.

Assessment team

Composition. Two senior project staff supervised the assessment, both from West Kalimantan and both with long-standing working relationships in Pematang Gadung, with technical backstopping from other YIARI staff.

Manager, Community Development Team. Melayu himself and a first-language speaker, with deep working knowledge of the socio-economic context and the challenges facing the community: household livelihood systems, dependence on mining and oil palm, gendered patterns of work and exclusion, and customary decision-making through *musyawarah*. He led stakeholder identification, focus group facilitation with vulnerable and disadvantaged groups, the FPIC process, and the design of benefit-sharing and grievance arrangements.

Senior Pematang Gadung Landscape Project Officer. Close to ten years of continuous work with members of this community, giving detailed first-hand knowledge of the Village

Forest, its governance through the LPHD, and the patrolling, restoration and biodiversity monitoring operations, as well as the history of fire and mining pressure across the landscape. He led risk identification, field data collection and analysis, and drafting of the safeguard plans.

Standards and safeguards experience. Both are experienced in applying international Environmental and Social Standards — SBIA - in participatory, gender-responsive impact assessment methods, and in preparing and monitoring safeguard instruments, stakeholder engagement plans and grievance redress mechanisms under the VCS/CCBA Standards.

3.9.3 Environmental and Social Management Plan

Table 14 Environmental and Social Risk and Impact Mitigation Measures

Risk/Impact	Mitigation Measures	Project Activity
Environmental risks of losing engagement from some community members due to long wait time between project start date and benefits flowing back into the community	- Regular communication and explanations of project steps, preferably involving external partners when possible - Increase employment progressively	Activity 3.1; Activity 3.2; Activity 3.3; Activity 3.4; Activity 3.5
Social risks tied to challenging conditions in the field (particularly with regards to fire-fighting teams)	- Capacity building - Refresher trainings - Adopting organisational culture of prioritising health and safety	Activity 2.1; Activity 2.2; Activity 2.3; Activity 2.4; Activity 2.5
Environmental and social risks tied to worsening climate change conditions	- Intensifying fire-prevention and fire-fighting activities	Activity 1.1 Activity 4.1

	- Prioritising planting in restoration areas only when climatic conditions are optimal to maximise survival rates	
Environmental risks tied to insufficient transition of illegal miners to other types of livelihoods.	- Complementary to employment in patrolling, fire-prevention and wildlife monitoring, the Project is now starting to offer small interest-free loans to villagers who are ready to develop their businesses. This programme builds on 3 years of experience in an adjacent landscape.	Activity 4.4
Social risk some vulnerable households remaining sidelined from project activities due to poverty or different physical abilities	- Seek locally-appropriate solutions to inclusion - Offer a variety of benefits including healthcare and education packages which can benefit those for whom employment or other types of direct involvement in the project is not possible	Activity 2.5

3.9.4 Native Species

Table 15: Non-Native Species Overview

Project Intervention	Non-Native Species Planted/ Introduced	Justification	Risk Assessment and Management
Enter the name of the project intervention that involves planting or introduction of non-native species	Add a row for each non-native species planted or introduced as part of the project intervention	Describe the livelihood or ecosystem benefits that justify including the non-native species in lieu of alternative native species	Provide evidence that the species poses no environmental risk or threat and/or describe measures in place to mitigate risks.
NA	NA	NA	NA

3.10 Reversal of Biodiversity Benefits

Table 16 Risk of Reversals

Risk Factor	Impact	Likelihood	Mitigation Measures*	Score
Social				
Land tenure and/or rights to climate benefits are disputed	3	0	NA This scenario is not applicable.	0
Political or social instability	1	1	Strengthen local governance; Activity 2.1; Activity 2.2; Activity 2.3; Activity 2.4;	1

			Activity 2.5	
Community support for the project is not maintained	3	1	Conduct consultations and understand any reasons for discontent; increase employment and livelihood benefits; strengthen governance; Activity 3.1; Activity 3.2; Activity 3.3; Activity 3.4; Activity 3.5; Activity 2.5	3
Economic				
Insufficient finance secured to support project activities	3	1	Unlikely to happen in the development phase, but more likely to happen if the project is unable to sell a large part of its certificates; Seek funds across YIARI's network of existing donors; apply for new finance	0
Alternative land uses become more attractive to the local community	2	2	Increase efforts to make sustainable livelihoods more attractive Activity 3.1; Activity 3.2; Activity 3.3; Activity 3.4; Activity 3.5;	4
External parties carry out activities that reverse climate benefits	3	1		3

Environmental				
Fire	3	2	Invest in fire-prevention and fire-fighting trainings and implementation of patrols Activity 1.1; Activity 2.1	6
Pest and disease attacks	1	1	The project will take into account any swine flu or bird flu outbreaks that might affect wild populations and impact biodiversity monitoring results. Restoration activities are unlikely to be affected by outbreaks.	1
Extreme weather or geological events	3	0	This area is not susceptible to earthquakes, typhoons, floods, etc. Fires are likely and covered above.	0
Administrative				
Capacity of the project coordinator to support the project is not maintained	3	0	Regular capacity building Activity 2.1; Activity 2.2; Activity 2.3; Activity 2.4; Activity 2.5	0
Technical capacity to implement project activities is not maintained	3	0	Regular capacity building Activity 2.1; Activity 2.2; Activity 2.3; Activity 2.4; Activity 2.5	0

* Cross reference activities from Section 1.4 (e.g. Activity 1.1.1)

3.11 Leakage

Table 17 Leakage Risk Mitigation

Project Intervention	**Leakage Risk**	**Mitigation Measures***
Enter the name of the project intervention.	Describe risks of leakage from the project intervention and their potential impact on emissions outside the project area(s).	Describe measures that will be implemented to mitigate the risk of leakage.
Protection against uncontrolled fire (Activity 1.1)	Strengthening fire-prevention and fire-fighting practices in Pematang Gadung will not increase fire risk in other areas. By raising awareness and increasing employment in this area, there may in fact be a reduction in fire-risk across the wider landscape, as this will help to change attitudes and practices. Reducing fire use in one area will not increase fire use in another because farmers use fire to clear agricultural lands before planting and cannot simply switch to other fields.	This intervention is likely to lead to positive leakage. No mitigation action is therefore required.
Protection against illegal activities (Activity 2.1 - 2.5)	Strengthening patrolling around mining and other high-risk areas to ensure mining operations and other destructive activities such as poaching remain contained and stop their spread into the Village Forest does carry a risk of leakage into neighbouring forest. However, the pressures on these neighbouring forests are already extremely high. The most likely scenario is that they will continue to be converted at historical rates of deforestation.	Mitigation actions will include coordination with Village Forest Protection Units in the two adjacent village forests – Sungai Besar and Sungai Pelang villages.

Restoration (Activity 4.1 - 4.2)	Training community members in restoration techniques and the replanting of approximately 1,500 ha with native peat species does not carry any risk of leakage.	No risk of leakage for this intervention.

* Cross reference activities from Section 3.5 (e.g. Activity 1.1.1)

3.12 Stacking - Double Counting

At the time of writing, no payments for ecosystem services or carbon credit projects have been received, issued or sold.

Table 18 GHG Emission Reduction and Removal Projects and Programmes in the Project Region

Project, Programme or Initiative	Scope	Carbon Credit Generation	Risk Mitigation
Add a row for each GHG emission reduction/removal project programme or initiative that overlaps with the project region	Add a description of the project, programme or initiative and identify any overlap with carbon pools and emission sources included in project accounting.	Describe whether the project, programme or initiative generates transferable carbon credits and the registry they are listed on (if any).	Describe any measures in place to prevent double counting with the project.
NA	NA	NA	NA

AGREEMENTS

3.13 Land Management Plans

There are no Plan Vivo land management plans in this project relevant to a standard

3.14 Crediting Period

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The Hutan Desa license (35 years long – issued in 2021) is valid until 2056 and renewable. The project period will exceed 30 years with an initial crediting period of 5 years starting in 2026 and ending in 2031.

3.15 Benefit Sharing Mechanism

The benefit-sharing mechanism was developed through a community-led, participatory approach facilitated by KMPGS cooperative and LPHD members in partnership with YIARI. The allocation framework was established using traditional consensus-building processes (*Musyawarah*) across representatives to ensure cultural appropriateness and broad alignment with local values. Targeted Focus Group Discussions (FGDs): Dedicated sessions were held with key demographic sub-groups—women, youth, elders, differently-abled residents, and mining-dependent households to identify specific socioeconomic priorities, remove barriers to participation, and prevent elite capture. In line with Free, Prior, and Informed Consent (FPIC) principles, post-discussion evaluations verified that community understanding approached 100% prior to holding formal votes. KMPGS and LPHD members retain ongoing authority to review and adjust allocation splits during Annual General Assemblies.

i) Percentage Allocation of Certificate Income:

Net revenue from the sale of Plan Vivo Biodiversity Certificates is divided into four main categories after any levies under Indonesian regulations have been accounted for:

Share	Category	Target Beneficiaries & Activities
45%	Direct Wages & Stipends	Monthly compensation for local field teams: SMART patrollers, peat restorers & nursery technicians, TPOM female fire-prevention patrollers, and biodiversity survey monitors.
20%	Health, Education & Livelihoods Fund	Community-managed development fund for sub-village infrastructure, youth educational scholarships/skills training, micro-grants and medical support.
20%	Field Operations & Maintenance	Upkeep and building of patrol posts, drone and GIS monitoring tools, fire-fighting equipment, nursery supplies, fuel, boat maintenance and field transportation.
15%	Certification & Technical Administration*	Plan Vivo registry fees, independent third-party verification audits, analysis partner, advisory services

**This cost is estimated at ~£45,000 per year, so the project needs a minimum of £300,000 net revenue to maintain this split.*

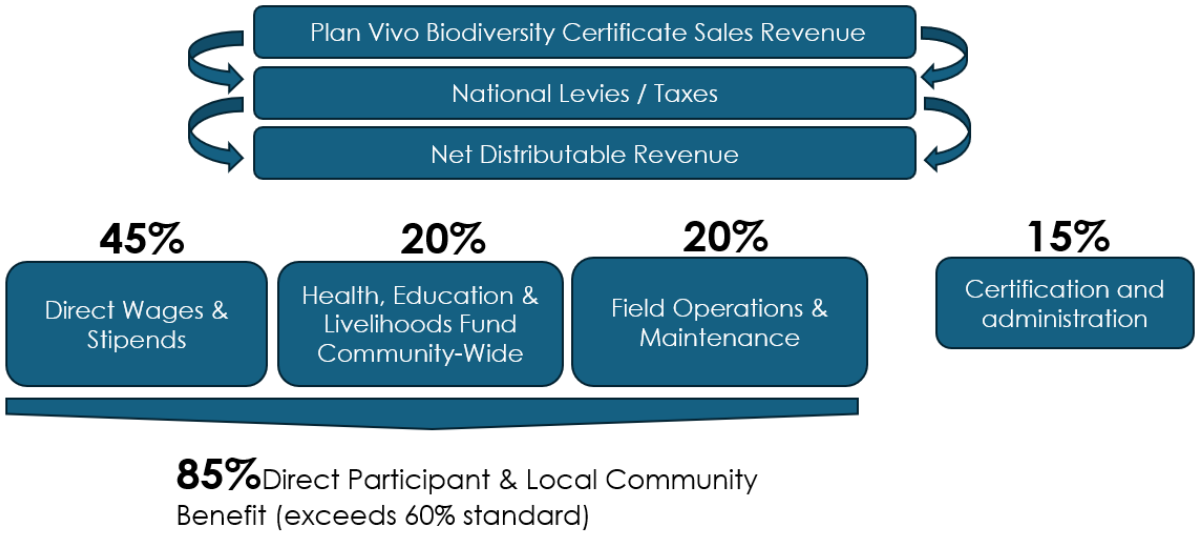


Figure 9: Benefit sharing allocation and compliance with minimum PV requirement

ii) Compliance with Plan Vivo ≥60% Direct Benefit Requirement

Combining direct wages (45%), the Health, Education and Livelihoods Fund (20%), and local operational spending (20%), 85% of net revenues directly benefit project participants and the local community, exceeding Plan Vivo 's minimum requirement of 60%.

At least 50% learning opportunities, fire-prevention/fire-fighting jobs will be mostly filled by women. Men will fill patrolling jobs because of the nature of the work and cultural norms. Households currently dependent on illegal mining are prioritised for recruitment into paid forest protection and restoration roles. Independent financial audits are conducted 1 time per year and presented in plain language to all cooperative members at the General Assembly.

iii) Benefit Timing and Delivery

Monetary Benefits (Wages/Stipends): Disbursed monthly via direct bank/cooperative transfers to registered workers.

Community Fund Disbursements: Distributed biannually or annually based on project proposals approved by the KMPGS Executive Board and community assembly.

Non-Monetary Benefits: Immediate access to technical training, safety gear, healthcare assistance, and informal educational programs.

iv) Dispersal Mechanism, Dependencies, Monitoring, and Corrective Actions

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Revenue from the registry account will flow directly into the project's legal, ring-fenced bank account. Joint oversight by the KMPGS Board and LPHD, supported by YIARI technical advisors and independent external auditors. A dedicated *Musyawarah* assembly is convened to review progress. The same assembly will propose corrective action plans in response to external audit findings and suggestions for management improvement.

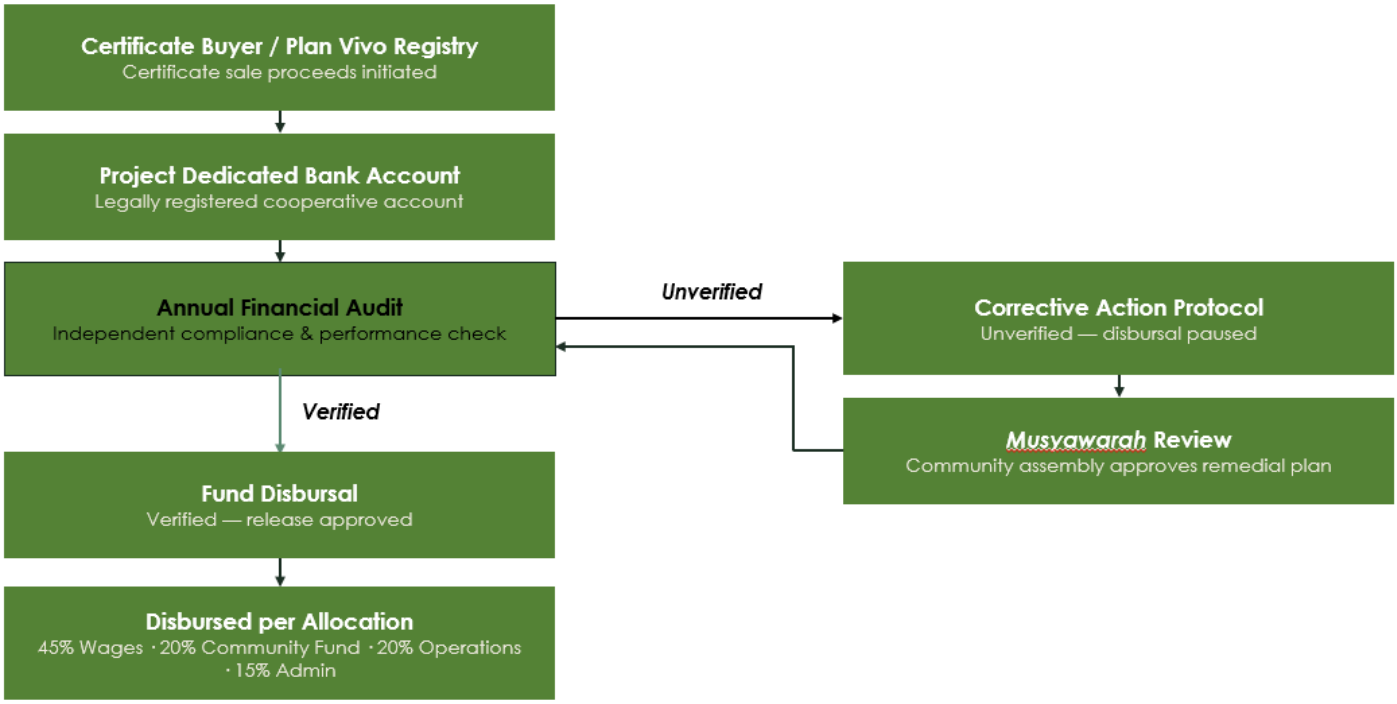


Figure 10: Benefit-sharing disbursal, monitoring and governance.

3.16 Grievance Mechanism

The Project has developed a formal grievance and redress procedure to prevent and handle any conflicts with and among communities and other stakeholders which may arise during the implementation of project activities.

One of the most important elements of the grievance redress procedure is to prevent potential conflicts before they arise. Such precautionary approaches include implementing FPIC-based community consultations, participatory planning, regular communication, and trust - and relationship-building between project staff and community members. This helps to identify underlying grievances well in advance and allows them to be addressed in a less formal way.

If any grievances occur and are reported in the form of letters, short messages or verbal communication, the cooperative will respond to them by following the formal handling process. The cooperative assesses all reported cases to identify and verify the cause, actors, and scale of grievances, and the project team of experts will recommend resolution options based on stakeholders' feedback. The degree of intervention and process will depend on the nature of disputes, and the cooperative will continue to monitor the cases. The project believes that most, if not all, grievances will be resolved this way, because based on past experience, bringing in a third party can put communities ill at ease and in some cases undermine the trust that has been built.

However, if a grievance is not amicably resolved after this process, support will be sought from an external conflict resolution specialist or mediator. If this process is still unsuccessful in resolving the complaint, a request to an Ombudsman will be submitted for formal mediation and arbitration and will be subject to a hearing at which both disputing parties have the opportunity to testify. All cases will be referred and examined to the extent allowed by Indonesian laws and regulations of the relevant jurisdiction before decisions are made, and both parties are bound to satisfy the result of arbitration.

- There are 3 levels in resolving complaints or issues that arise. The duration for complaint resolution is <10 days at level 1, <21 days at level 2, and <90 days at level 3.
- Complaints can be expressed via email at info@XXXXXXX, by contacting the Project Call Center at XXXXXXXX, or verbally in person.
- The Communications and Public Relations department will respond to incoming messages by collecting information and completing the reporter's identity details according to the prepared form, and verifying with recordings or other documentation.
- Conducting internal meetings with relevant departments based on the Priority Decision Flow, first classifying the scope, gathering information related to the complaint, and reviewing documents together.
- Communicating the agreement with the reporter; if both parties reach an agreement, the complaint resolution is considered complete. If no agreement is reached, the complaint moves to Level 2.
- In Level 2 complaint resolution, the Board of Directors may also be involved in considering certain aspects related to the complaint resolution. This level may also require a Conflict Resolution Specialist or a professional mediator.
- If an agreement is not reached, the complaint resolution escalates to level 3, where the ombudsman will be involved at this stage.

3.17 Project Agreements

After almost a decade of working together, the village signed a written cooperation agreement with YIARI in 2025 to formalise its intention to continue working together to protect the Village Forest.

4 Monitoring and Reporting

Indicators

4.1 Progress Indicators

Table 19 Progress Indicators

Output/Activity	Indicator	Means of Verification
Output 1 Fire risk across 7,004 ha of coastal peatland is kept low, resulting in reduced forest loss rates (as compared to a 0.09% forest loss baseline).	1.1 Extent (ha) of forest loss due to fire by end-2029 and end-2029 [*Target: 30% reduction by 2029 and 50% reduction by 2031 (baseline = 0.09 per year or 4.7 hectares per year, excluding fire events in 2015/2016.]* 1.2 Extent (ha) of non-forest land patrolled for the prevention and mitigation of fires each year *[Target: 750ha per year]*	Satellite imagery analysis.
Activity 1.1 Support and mentor the all-female community-led Fire Patrol Team ('The Power of Mama' - TPoM) and other fire-fighting teams.		SMART TPoM patrol database and mapping.
Output 2 Improved local governance, particularly regarding illegal mining and burning activities.	2.1 Percentage (%) reduction in Village Forest Area lost to mining *[Target: 30% reduction by 2031 as compared to baseline. Baseline: ~ 0.24% per year or 13 hectares per year)*	SMART TPoM patrol database and satellite imagery analysis.

	2.2 Continued low logging levels, as compared to baseline for each year of project implementation – 2025 onwards *[Baseline: Encounter Rate [ER]=0.0013 instances per hour of patrol; Target: 0.0013 or less]* 2.3 Continued low instance s of other illegal activities as compared to baseline for each year of project implementation *[Baseline: ER=0.0026 instances per hour of patrol; Target: 0.0026 or less]*	
Activity 2.1 Train community members in SMART, drone usage, satellite image inspections and Global Forest Watch tools.		SMART patrol data and satellite imagery analysis.
Activity 2.2 Implement Integrated Forest Crime Alert System (IFCA) to improve forest protection and monitoring.		SMART patrol data and satellite imagery analysis.
Activity 2.3 Provide ongoing mentoring for new and existing Patrol Team members to carry out effective forest patrols and monitoring.		SMART patrol data and satellite imagery analysis.
Activity 2.4 Support statutory reporting of illegal activities to local authorities.		Copies of reports submitted to authorities.
Activity 2.5 Participatory review of KMPGS structure and governance.		Meeting minutes.

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Output 3 At least 15% of PG households depend on regenerative livelihoods, resulting in better quality employment, improved multi-dimensional wellbeing and poverty reduction.	3.1 Number of people working as 'Forest Restorers' *[Target: 60 – including at least 40 women; ~120 by 2031 – including at least 100 women]*	Field reports and Project Documentation.
	3.2 Number of people working as 'Forest and Wildlife monitors' by end-2029 and 2031 *[Target: at least 15 by 2029 and ~90 by 2031 – including ~10 women; baseline: 7, no women]*	Field reports and Project Documentation.
	3.3 Number of illegal miners reporting a shift away from mining as a result of project activities by end-2029 and 2031. *[Target: 15 – and 30% by 2031]*	Social impact surveys.
	3.4 Number of households reporting i mproved multi-dimensional wellbeing as a result of increased access to training, knowledge, opportunities by end-2029 and 2031 *[Target: ~150 by 2029 and ~300 by 2031, with at least 50% being women]*	Social impact surveys.
	3.5 Number of households reporting higher incom es by 2031 *[Target: 150-200 households or 790-1,060 people (including 50% women) reporting a 10% increase in income; poverty rate: ~30%, TBC].*	Social impact surveys.

DRAFT

Activity 3.1 Support statutory reporting of illegal activities to local authorities.		Copies of the reports submitted to local authorities.
Activity 3.2 Participatory review of KMPGS structure and governance.		Copies of reviewed structure and governance.
Activity 3.3 Support agriculture-based sustainable livelihoods initiatives, also through micro interest-free loans		Copies of contracts, photos and progress/field reports.
Activity 3.4 Complete Plan Vivo Nature certification		Approved validation report.
Activity 3.5 Marketing and sales of PV Nature credits		Content published on websites and social media accounts.
Output 4 ~1,500 ha degraded peatland are restored over the project lifetime.	4.1 Extent (ha) of degraded peatland restored by end-2029 and 2031. *[Target: 100 ha by end-2029 and 240 ha by 2031]* 4.2 Number of native peat seedlings grown and planted by end-2031 *[Target: 80,000 native peat seedlings are cared for and planted by an all-female team.]*	Monthly/Yearly restoration results. Drone coverage. Seedling survival success surveys and reports.
Activity 4.1 Support KMPGS cooperative and other community members to collect wild seeds, germinate and replant native peat saplings.		Photographic evidence, field reports.
Activity 4.2 Monitor seedling survival and replant as needed.		Photographic evidence, field reports.

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4.2 Socioeconomic Indicators

Table 20 Socioeconomic Indicators

Socioeconomic Indicator	Means of Verification
Describe the indicator that will be monitored to assess socioeconomic status or social risks.	Describe how the indicator will be measured (methods of measurement, sampling approach, frequency of monitoring, groups or individuals involved, resources or capacity required).
Number of households reporting enhanced wellbeing by end-2029 and 2031 *[100 households or 530 women, men and children – with at least 25 mining - dependent households and 50% women and girls reporting greater multi-dimensional well-being by 2029; ~300 households or 1,590 women men and children - including at least 75 mining-dependent households and 50% women and girls reporting greater multi-dimensional wellbeing by 2031.*	Social impact surveys Random stratified sampling approach surveying direct participants/beneficiaries and non-participating community members (as control) using independent enumerators every 2 years.

4.3 Environmental Indicators

Table 21 Environmental Indicators

Environmental Indicator	Means of Verification
Describe the indicator that will be monitored to assess ecological conditions or environmental risks.	Describe how the indicator will be measured (methods of measurement, sampling approach, frequency of monitoring, groups or individuals involved, resources or capacity required).
1. Extent (ha) of peatland under better management practices and Integrated Forest Crime Alert System (IFCAS) by end-2029 *[Target: 7,004 ha of land (of which 5,304ha are mature forest)]* 2. Extent (ha) of forest loss avoidance. *[Target: 30% forest loss avoidance by 2029 and 45% forest loss avoidance by 2031 as compared*	1. Integrated Forest Monitoring database, including SMART patrol data (collected monthly) and GIS monitoring results. 2. Forest Cover Loss/ Satellite imagery analysis (twice a year).

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	to baseline of 0.33% loss per year over 7,004 ha of community forest (21ha per year). Baseline calculated as average loss over 6 years. Baseline does not include 2015/2016 El Niño fires, which resulted in ~26% loss]	

MONITORING

4.4 Monitoring Plan

Biodiversity indicators: The survey designed by the analytics partner in accordance with PV Nature Standard includes 45 sampling points distributed across the Village Forest, covering both the 'Conservation Area' (approximately 5,304 ha) and the 'Restoration Area' (approximately 1,500 ha) (see Figure 11 below) collecting data on birds, bats, non-flying mammals and trees. LPHD members lead on device deployment with support from local YIARI staff.

Habitat	Area (ha)	# of Sampling Points (# hectares per sensor)		
		CT	BA	VP
Conservation	5,004	32 (156 ha)	22 (228 ha)	22
Restoration	2,000	13 (154 ha)	8 (250 ha)	8
TOTAL	**7,004**	**45 (156 ha)**	**30 (234 ha)**	**30**

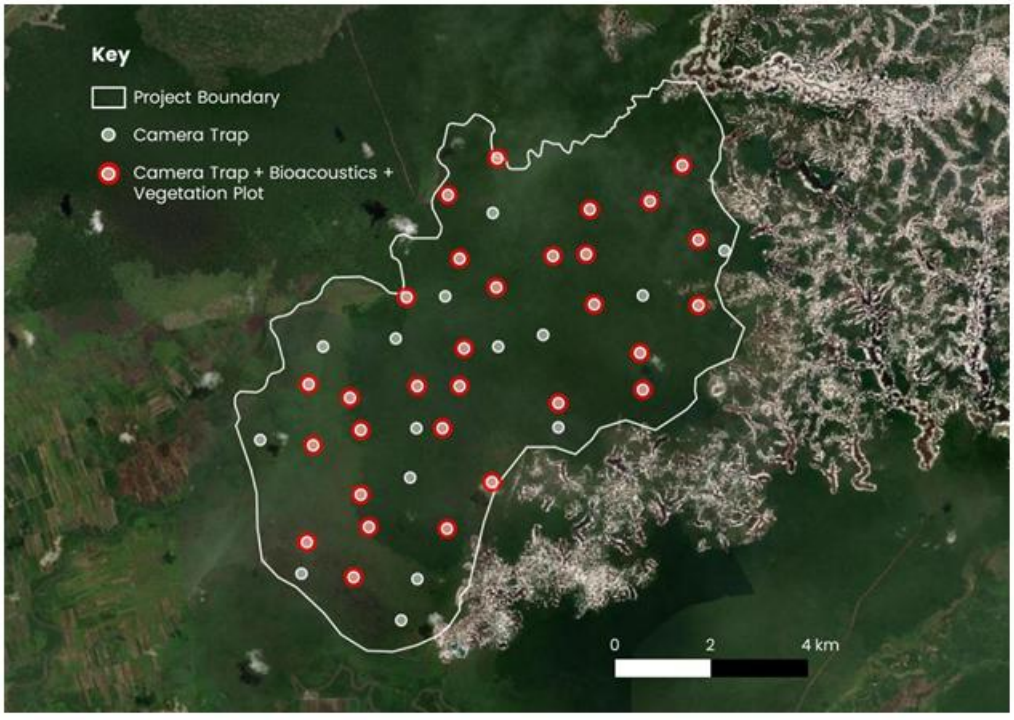


Figure 11 = Number of sampling points and method. CT = Camera Trap; BA = Bioacoustics; VP = Vegetation Plot.

Biodiversity data will be collected every year in February and March.

Socioeconomic indicators (Table 20), principally household-level reporting of enhanced multi-dimensional wellbeing are measured through dedicated social impact surveys administered every two years. These use a random stratified sampling approach, surveying both direct participants/beneficiaries and a matched sample of non-participating community members as a control group, disaggregated to ensure adequate representation of mining-dependent households and of women and girls against the stated targets. Surveys are administered by independent enumerators rather than project staff, to reduce reporting bias, with results captured in field reports and project documentation.

Environmental indicators (Table 21) rely on the Integrated Forest Monitoring database — SMART patrol data collected monthly, combined with GIS results — plus forest-cover-loss analysis from satellite imagery conducted twice a year. This tracks the area under improved management and the Integrated Forest Crime Alert System (target: 7,004 ha, of which 5,304 ha mature forest) and forest-loss avoidance against an established multi-year baseline (excluding the anomalous 2015/2016 El Niño fire years).

Day-to-day data collection is embedded in existing paid roles (patrollers, restorers, wildlife monitors) using tools already budgeted under the project's field operations line, minimising additional monitoring cost. Higher-order verification — satellite/GIS analysis, the biennial social impact surveys with independent enumerators, and validation reporting for Plan Vivo certification — requires periodic technical and financial support, which KMPGS accesses through YIARI's advisory input and, over time, through certificate revenue allocated to operations and certification costs (see the project's benefit-sharing mechanism). Governance reviews (participatory reviews of KMPGS structure) are conducted through community meetings, with minutes retained as the means of verification, ensuring the monitoring system itself remains subject to community oversight.

4.5 Progress Monitoring

Output 1 - Fire risk across 7,004 ha of coastal peatland is kept low

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Output 2 - Improved local governance of illegal mining and burning

Indicator	2027	2028	2029	2030	2031	Corrective Action if Milestone Not Met
1.1 Extent of forest loss due to fire (cumulative % reduction vs. 4.7 ha/yr baseline)	10% reduction	20% reduction	30% reduction	40% reduction	50% reduction	Conduct a review of fire incidents (ignition source, patrol/coverage gaps); increase Power of Mama patrol frequency and early-warning coverage in high-risk zones; extend fire-prevention training to neighbouring plantations and villages; revise the fire-response protocol ahead of the next dry season.
1.2 Extent (ha) of non-forest land patrolled for fire prevention each year	400 ha	600 ha	750 ha	750 ha	750 ha	Reassess patrol team staffing and equipment (motorbikes, drones); reallocate patrol coverage to under-served high-risk zones; strengthen collaboration with neighbouring plantation actors on shared fire risk.

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Indicator	2027	2028	2029	2030	2031	Corrective Action if Milestone Not Met
2.1 % reduction in Village Forest Area lost to mining (vs. ~13 ha/yr baseline)	5% reduction	10% reduction	15% reduction	22% reduction	30% reduction	Escalate reporting to Forest Management Unit authorities and police; establish or reposition permanent patrol posts at active encroachment points; increase satellite/GIS monitoring frequency; convene a *Musyawarah* session to address root causes of continued encroachment.
2.2 Logging encounter rate (ER, instances per patrol hour)	≤0.0013	≤0.0013	≤0.0013	≤0.0013	≤0.0013	Investigate specific encounter locations and timing; deploy additional patrols to affected zones; reinforce community reporting channels and follow-up with local authorities on repeat offenders.
2.3 Other illegal activity encounter rate (ER, instances per patrol hour)	≤0.0026	≤0.0026	≤0.0026	≤0.0026	≤0.0026	As for 2.2, with particular attention to poaching and non-mining illegal activity locations; strengthen coordination with authorities on repeat cases and review patrol scheduling in affected areas.

Output 3 — At least 15% of PG households depend on regenerative livelihoods

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Indicator	2027	2028	2029	2030	2031	Corrective Action if Milestone Not Met
3.1 Number of people working as Forest Restorers (of which women)	35 (10 women)	42 (12 women)	50 (≥20 women)	85 (≥30 women)	120 (≥40 women)	Expand outreach to mining-dependent households and women via targeted FGDs; adjust training capacity and nursery scale-up plans if recruitment or retention lags.
3.2 Number of people working as Forest and Wildlife Monitors	9	12	15	45	80	Review accessibility of technical training (equipment, literacy/language barriers); pair new recruits with experienced monitors for mentoring; prioritise recruitment among women previously engaged through FGDs.
3.3 Number/share of illegal miners reporting a shift away from mining	5 people	10 people	15 people	20% of mining-dependent	30% of mining-dependent	Expand livelihood diversification (agriculture-based initiatives, micro-loans); hold targeted FGDs with remaining mining-dependent households to identify specific barriers to transition.
3.4 Number of households reporting improved multi-dimensional wellbeing	~75	~85	~100	~225	~300	Review training/education access and uptake barriers by sub-group (gender, age, disability); reallocate the Health, Education & Livelihoods Fund toward underserved households; extend FGDs to identify unmet needs.
3.5 Number of households reporting higher incomes	~30	~50	~75-100	120-150	150-200	Review whether livelihood wages are keeping pace with the mining income baseline; assess market access for restoration/monitoring-linked income; consider increasing the Livelihoods Fund allocation from certificate revenue.

Output 4 — Degraded peatland is restored

Indicator	2027	2028	2029	2030	2031	Corrective Action if Milestone Not Met
4.1 Extent (ha) of degraded peatland restored	25 ha	60 ha	100 ha	170 ha	240 ha	Review seedling survival rates and replanting needs; adjust planting schedule to align with wet-season timing; reassess restoration team capacity and nursery output against the shortfall.
4.2 Number of native peat seedlings grown and planted	10,000	25,000	40,000	60,000	80,000	Review nursery germination success rates; source additional wild seed stock; evaluate the species mix for climate resilience (e.g. drought tolerance) and adjust planting practice accordingly.

SOCIOECONOMIC AND ENVIRONMENTAL MONITORING

4.6 Social Monitoring

Indicator	2031	Corrective Action if Milestone Not Met
Number of households reporting enhanced wellbeing	~300	Review training/education access and uptake barriers by sub-group (gender, age, disability); reallocate the Health, Education & Livelihoods Fund toward underserved households; extend FGDs to identify unmet needs.

4.7 Environmental Monitoring

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Indicator	2031	Corrective Action if Milestone Not Met
Extent (ha) of peatland under better management practices and Integrated Forest Crime Alert System (IFCAS) by end-2029 *[Target: 7,004 ha of land (of which 5,304ha are mature forest)]*	*7,004*	
Extent (ha) of forest loss avoidance. *[Target: 30% forest loss avoidance by 2029 and 45% forest loss avoidance by 2031 as compared to baseline of 0.33% loss per year over 7,004ha of community forest (21ha per year). Baseline calculated as average loss over 6 years. Baseline does not include 2015/2016 El Nino fires which resulted in ~26% loss]*	45% reduction	Escalate reporting to Forest Management Unit authorities and police; establish or reposition permanent patrol posts at active encroachment points; increase satellite/GIS monitoring frequency; convene a Musyawarah session to address root causes of continued encroachment.

4.8 Sharing Monitoring Results

Project stakeholders will be invited once a year to a project evaluation to share socioeconomic and environmental monitoring results and receive feedback to address any issues identified and plan corrective actions. When issues are identified, the project will:

1. First validate the result and check data quality.
2. Assess the cause, including whether the issue arises from implementation, external pressures, leakage, or an unrealistic assumption.
3. Consult affected stakeholders, including women, mining-dependent households, neighbouring communities, and relevant authorities.
4. Approve corrective measures, assigning responsibility, resources, and a completion date.
5. Increase monitoring frequency where necessary to assess the response.

6. Record and report the outcome, including any revision to activities, targets, risk controls, or the Project Logic.

Corrective actions should follow the mitigation hierarchy by prioritising avoidance of negative impacts, followed by measures to reduce and remedy impacts. The Project Logic and monitoring framework will be updated whenever evidence shows that the assumed causal pathways, risks, or mitigation measures are no longer adequate

Subsequently, brief action plans are drafted and reviewed against implementation progress at the following meeting.

REPORTING

4.9 Annual Report

The First Annual report is scheduled for 1 July 2027, with the first reporting period going from 1 June 2026 until 30 May 2027

4.10 Record Keeping

The project uses a folder system in Teams to store relevant data, reports, certification documentation and other project documentation in Teams.

5 Governance and Administration

5.1 Governance Structure

This project adopts an inclusive cooperative structure that ensures genuine community control and agency. Every adult community member will be invited to join the cooperative. Through membership, each villager will be part of the KMPGS committee and, as such, called upon to participate in decision-making.

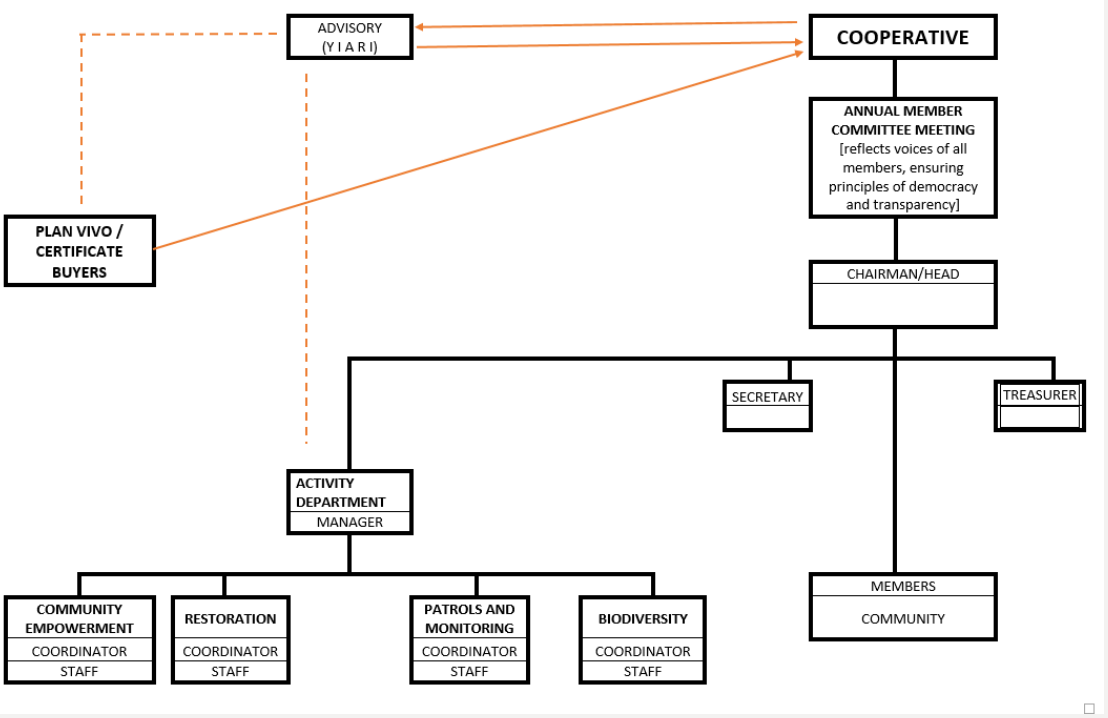


Figure 12: Governance and Administrative structure??

5.2 Equal Opportunities

Women, children, and the elderly feel the impacts of habitat degradation, fires, and climate change more intensely in this landscape (burning peat significantly increases the risk of acute respiratory infections and pregnancy loss). These impacts intersect with existing structural inequalities faced by women who are also historically excluded from paid employment. The project is designed to ensure women and girls stand to benefit as much as possible. Female participation and entrepreneurship will be prioritised by supporting an all-female fire-prevention and fire-fighting team, as well as an all-female weaving team (making seedling pots for peat restoration). This project will also ring-fence at least 50% of learning opportunities for women and girls and will disaggregate data and monitor impacts accordingly.

Targeted efforts will also be made to encourage the participation of youth, older generations, and differently-abled villagers (either represented by themselves or by their carers). To promote the involvement of these historically marginalised community members, separate Focus Group Discussions (FGDs) will be conducted for each of these groups, so that specific needs, concerns, and priorities can be identified and addressed.

5.3 Legal and Regulatory Compliance

Table 22: Legal and Regulatory Compliance

Policy, Law or Regulation	Relevance	Compliance Measures
Add a row for each relevant policy, law or regulation that applies to the project	Describe the relevance of the policy, law or regulation	Describe any measures in place to ensure the project is carried out in compliance with relevant policies laws and regulations
NA	NA	NA

All forest in Indonesia belongs to the State and are administered by the MoF and related provincial and district-level authorities. However, in the case of the Village Forest, all use and management rights are held by our community. Rights linked to ecosystem service payments, such as those for carbon sequestration or CO^2 avoided emissions, for example, are also held by communities.

To date no legislation has been issued regulating the issuance and trade of biodiversity credits. However, the project commits to operate in full compliance with all Indonesian and international policies, laws and regulations when relevant ones to the project's activities are issued.

5.4 Financial Plan

Project development will be financed through philanthropic funding and statutory grant finance. Once certificates are issuable, grant finance will be phased down. Given project costs and potential revenue (details in Annex 14), all future (scaled-up) project management and operating costs can be sourced through certificate sales, assuming effective marketing and sales and demand for this type of high-quality, high-integrity certificate. Through increased financial flows from certificate sales, the project expects to scale operations between 4 and 7-fold (involving up to 500 households) to rise to increasing threats in the landscape and effectively protect the area.

5.5 Financial Management

All income from the sale of Plan Vivo Biodiversity Certificates is received into a single dedicated bank account held by KMPGS. Ring-fencing certificate revenue in this account keeps project finances fully separate from any other cooperative or village funds and provides a single, auditable record of all inflows and outflows. Expenditure follows the community-approved benefit-sharing mechanism, with all disbursements requiring dual sign-off, supporting documentation retained for every transaction, and monthly account reconciliation. Wages are paid monthly by direct transfer

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against verified activity records (e.g. SMART patrol logs, restoration outputs), while Community Fund disbursements are released against proposals approved by the KMPGS Board and the general assembly. Members retain ongoing influence over allocations between spending categories through the customary *musyawarah* deliberation process, and financial summaries are presented in plain language to all cooperative members at general assemblies.

Project finances will be audited once or twice per year by an independent external auditor — a licensed Public Accounting Firm (Kantor Akuntan Publik, KAP) registered with the Indonesian Ministry of Finance and whose auditors are certified by the Indonesian Institute of Certified Public Accountants (IAPI), the nationally recognised regulatory body for the audit profession in Indonesia. Audit findings and any corrective actions are reported to the KMPGS Board and LPHD, shared with all cooperative members at the general assembly, and made available to the Plan Vivo Foundation as part of annual reporting. Should an audit identify irregularities or misallocation, disbursements from the affected category are paused, the corrective-action protocol is triggered, and a *musyawarah* assembly is convened to approve a remedial plan before regular payments resume — with YIARI providing technical support as needed.

6 Annexes

Annex 1 – Project Boundaries and Habitat Maps

Provided separately

Annex 2 – Registration Certificate and Partner Agreements

The KMPGS Cooperative obtained legality through the Decree of the Minister of Law and Human Rights of the Republic of Indonesia with decree number AHU-0003874.AH.01.29 (see below – a translation can be provided upon request). In addition, KMPGS Cooperative is also registered with the Ministry of Finance of the Republic of Indonesia through the Directorate General of Taxes, West Kalimantan DJP Regional Office, with the number: S-15132/KT/KPP.130303/2024.

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KEPUTUSAN MENTERI HUKUM DAN HAK ASASI MANUSIA REPUBLIK INDONESIA
NOMOR AHU-0003874.AH.01.29.TAHUN 2024
TENTANG
PENGESAHAN PENDIRIAN BADAN HUKUM
KOPERASI KONSUMEN MANDIRI PEMATANG GADUNG SEJAHTERA

Menimbang : a Bahwa berdasarkan Permohonan RIYA YANUARTI S.H., M.Kn., sesuai salinan Akta Nomor 01 Tanggal 04 Oktober 2024 yang dibuat oleh RIYA YANUARTI S.H., M.Kn., tentang Pendirian Badan Hukum KOPERASI KONSUMEN MANDIRI PEMATANG GADUNG SEJAHTERA tanggal 10 Oktober 2024 telah sesuai dengan persyaratan pengesahan Pendirian Badan Hukum Koperasi;

b Bahwa berdasarkan pertimbangan sebagaimana dimaksud dalam huruf a, perlu menetapkan keputusan Menteri Hukum dan Hak Asasi Manusia tentang Pengesahan Pendirian Badan Hukum KOPERASI KONSUMEN MANDIRI PEMATANG GADUNG SEJAHTERA.

M E M U T U S K A N :

Menetapkan :

KESATU : Mengesahkan pendirian badan hukum - KOPERASI KONSUMEN MANDIRI PEMATANG GADUNG SEJAHTERA - yang berkedudukan di KABUPATEN KETAPANG karena telah sesuai dengan Data Format Isian Pendirian yang disimpan di dalam database Sistem Administrasi Badan Hukum Koperasi sebagaimana salinan Akta Nomor 01 Tanggal 04 Oktober 2024 yang dibuat oleh RIYA YANUARTI S.H., M.Kn., yang berkedudukan di KABUPATEN KETAPANG.

KEDUA : Keputusan ini berlaku sejak tanggal ditetapkan.
Apabila ternyata dikemudian hari terdapat kekeliruan dalam Keputusan ini maka akan diadakan perbaikan sebagaimana mestinya.

Ditetapkan di Jakarta, 16 Oktober 2024.

a.n. MENTERI HUKUM DAN HAK ASASI MANUSIA
REPUBLIK INDONESIA
DIREKTUR JENDERAL ADMINISTRASI HUKUM UMUM,

Cahyo Rahadian Muzhar, S.H., LLM.
NIP : 19690918 199403 1 001

DICETAK PADA TANGGAL 16 Oktober 2024

TEMBUSAN :
MENTERI KOPERASI DAN USAHA KECIL DAN MENENGAH

Annex 3 – Initial Project Areas

Not applicable in the village forest context – one large community-managed area

Annex 4 – Participatory Design

The field team is gathering documentation.

Annex 5 – Initial FPIC

The field team is gathering documentation.

Annex 6 – Technical Specifications

Version:	V0.1	
Date Approved:		
Certificate Type(s):	Conservation and restoration certificates	
Target group being monitored (minimum 4 groups required):	**Biodiversity Monitoring Tool. Include equipment specifications including the name of the tool, make and model.**	**Monitoring activities. Detail why this group was selected and project specific considerations for monitoring this target group.**
Birds	Audio-moths (open acoustic devices) IPX7 Waterproof Case; 32GB or 64GB Sandisk Extreme UHS Speed Class 3 (U3) micro SDHC card.	The project area is known for particularly high bird diversity (>100 species).
Trees	Local botanist and Xiaomi Redmi note 14 5G android phones, using OS Android 14, with built-in GPS/GNSS (GPS, GLONASS, Galileo, BeiDou, QZSS).	Trees are sensitive to peatland degradation and associated water table level changes and provide the habitat for the three other taxonomic groups monitored.
Insectivorous bats	Audio-moths (open acoustic devices)	Insectivorous bat communities are ecosystem health indicators, affected

	IPX7 Waterproof Case; 32GB or 64GB Sandisk Extreme UHS Speed Class 3 (U3) micro SDHC card.	by seasonality and prey availability, with some species inhabiting denser forests and others inhabiting open / disturbed habitats.
Non-flying mammals	Camera traps; Browning- Dark Ops and Solaris Trail Cameras- Weapon 4k plus	Mammal populations in the project area are diverse, impacted by seasonality, phenology and prey availability.
Baseline Pillar Metric Values *(included after baselining, do not complete on first submission of PDD)*		
Pillar 1		
Pillar 2		
Pillar 3		
Pillar 4		
Pillar 5		

Applicability conditions

The baseline scenario as of June 2026 is characterised by 5,007.68 ha of primary forest, 282.75 ha of restored forest, and 134.85 ha of deforested peat from gold mining to the east and north-east of the village forest boundary. The remaining land, 1,578.72ha of deforested peat, was burned in the El N Niño fires of 2015 and 2019 and around 100 ha of this degraded land in the southernmost part has been converted to oil palm advancing from the west and south-west of the village forest border.

Applicability for conservation projects (only applicable to conservation projects)

The project fulfils criterion A1c of the Key Biodiversity Areas (KBA) criteria, as the population of Pongo pygmaeus is >0.5% of the global total with well over five reproductive pairs of animals existing in the project area (although orangutans don't 'pair up' as they are mainly semi-solitary). The last comprehensive Bornean orangutan survey was carried out in 2016 (*Orangutan nest*

survey report in Pematang Gadung and Sungai Besar Village Forests, 2016 YIARI unpublished report) and was based on six transects in Pematang Gadung Village Forest and on in Sungai Besar Village Forest. It resulted in an estimate of between 548 and 808 individuals, and a density estimate of between 2.61 and 3.85 ind/km^2. When considering the relevant remaining habitat within recognised Village Forest borders, the number of orangutan individuals is estimated at between 130 and 192. Given an estimated global population of 47,000 for 2025 (source: IUCN), the population within legal Village Forest borders is estimated at between 0.27% and 0.4%, thus qualifying for KBA criterion A1c.

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Species	**IUCN Red List status**	**Relevant KBA A1 sub-criterion**	**Threatened Status as assessed under the Red List Criteria**	**% global population threshold required**	**Global population size (mature individuals)**	**Site population size (mature individuals)**	**% of global population size at project area**	**Reproductive units in project area**	**Year of recent confirmation of species presence at the site**	**KBA A1 subcriterion met**	**Reference/ Justification**
Bornean orangutan (*Pongo pygmaeus)*	CR	A1c	A4abcd	≥0.1%	47,000	130-192	0.27-0.4%	>50	2025 (pers. comm, LPHD)	Yes	*2016 YIARI Nest survey report* Ancrenaz *et al* 2024 (IUCN assessment).

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Additionality and Baseline Scenario

As of June 2026, the project area is characterised by 5,007.68 ha of primary forest, 282.75 ha of restored forest, and 134.85 ha of deforested peat resulting from gold mining in the east and north-east of the Village Forest boundary. The remaining land, 1,578.72 ha of deforested peat, was burned in the El Niño fires of 2015 and 2019, and around 100ha of this degraded land in the southernmost part has been converted to oil palm, advancing from the west and south-west of the Village Forest border. Without this project, mining will continue to expand.

As a result of project interventions (with-project scenario)

Regulatory surplus – As evidenced by the maps above, despite there being an obligation to keep village forest as forest, the resources, regulatory frameworks, incentives and systems in place are insufficient to stop both mining and oil palm from encroaching the Village Forest. Law enforcement can only be carried out by GAKKUM, a special agency within the MoF of Indonesia. Given the volume of environmental crime being committed nationally, this agency can only focus on a sub-set of cases.

Table 1 – Comparative assessment of barriers for Pematang Gadung Village Forest.

Type of	Gold mining	Oil palm

barrier	Description of specific barriers	Score assigned to barriers from 1-5 (1 – very low, 5 – very high)	Description of specific barriers	Score assigned to barriers from 1-5 (1 – very low, 5 – very high)
Financial/economic	Although equipment involved in illegal artisanal mining is expensive (e.g. excavator hire and *Dompeng darat* – improvised dredging systems based on Chinese diesel engines called *Dongfeng*), middlemen (often also the machine owners) provide loans to miners (see press articles published in 2024-2025 below). Income from gold mining is less regular and predictable than oil palm; however, illegal miners commit to this activity in the hope that, if/when they find large quantities of flakes and nuggets, it will almost certainly result in higher profits than other activities. https://www.thestar.com.my/aseanplus/aseanplus-news/2026/02/21/indonesian-police-probe-rp-25-trillion-money-laundering-linked-to-illegal-gold-mining-in-west-kalimantan#goog_rewarded https://www.evidencity.com/indonesias-gold-mining-mafia https://borneoproject.org/tag/mining/	1	Although access to formal capital is challenging for rural communities, investing in oil palm is profitable so it is possible to acquire capital, generally through high-interest loans from middlemen. However, oil palm is not as profitable as gold mining.	3
Technical	The technical skills required for illegal gold mining are very limited and readily passed on by other miners, who work in groups where the most	1	Oil palm agriculture requires at least some agricultural knowledge on land preparation and	3

	experienced can teach the younger and less experienced.		drainage, required inputs and weed control.	
Institutional/ political	Although illegal, this activity is pervasive in many landscapes, and authorities have limited capacity and resources to act.	3	Although illegal, this activity is pervasive in many landscapes, and authorities have limited capacity and resources to act.	3
Ecological or resource	Widespread environmental degradation includes as soil erosion, declining water quality, reduced fish availability, destruction of all forest resources and NTFPs, increased pollution and poisoning of waterways and soils. Mixing soil layers by digging 30m pits often causes sandy layers to rise to the top, reducing or eliminating vegetation recovery.	5	Widespread environmental degradation decline in water quality, fish availability, destruction of all forest resources and NTFPs. Although canals are dug to drain soils and facilitate palm growth, soils are damaged to a lesser extent compared to gold mining.	4
Social or cultural	Despite the severe negative environmental consequences to mining, there are limited social and cultural barriers to gold mining.	1	There are limited social and cultural barriers to oil palm.	1
Infrastructural	Although remote, existing mining operations have created roads in previously difficult-to-access areas	2	Oil palm is expanding on the less remote side of the village, so infrastructural barriers are very limited.	1
Market availability	Gold prices are at an all-time high, up 93% over the past 5 years (2022-2026).	1	Oil palm prices have steadily increased for 3 years, since the 2023 post-pandemic price correction and are almost back to their all-time high of 2022. However, since	3

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			the Indonesian government introduced a centralised export system (2025) for oil palm, the price of fresh fruit bunches roughly halved (2025). Moreover, palm mills often underpay farmers for fruit bunches introducing some uncertainty.	
Sum of scores	14		18	

Given that gold mining presents the lowest barrier score (14), compared with oil palm (18), it is selected as the alternative land-use scenario. Figure 9 supports this choice by showing active gold mining encroachment into PG Village Forest boundaries (orange areas).

6.1.1 Complete a comparative assessment of benefits (optional)

Table 2 –comparative assessment of benefits.

Type of benefit	Gold mining		Oil palm	
	Description of specific benefits	Score assigned to benefits from 1-5 (1 – very low, 5 – very high)	Description of specific benefits	Score assigned to barriers from 1-5 (1 – very low, 5 – very high)
Financial benefits	Gold prices are at an all-time high (93% increase in last 5 years)	5	Oil palm prices have been steadily rising despite some uncertainty at the farmer level due to national policy (centralisation of exports) and mills often underpaying farmers for fresh fruit bunches.	3
Environmental benefits	Illegal gold mining provides no environmental benefits. Gold mining causes water	1	Oil palm provides no environmental benefits. To the contrary, illegal oil palm	2

	pollution through hazardous chemicals (including mercury, cyanide and silica dust) and soil degradation through the digging of 30m pits, along with associated CO^2 emissions.		plantations cause water pollution and degradation through the use of chemicals, fertilisers and weed killers, digging canals and lowering of the water table and associated CO^2 emissions. However, soils can be restored more easily after oil palm than after mining, which is why the score assigned is slightly higher.	
Social benefits	There are no or negligible social benefits associated with gold mining (aside from monetary benefits). Miners work in difficult and unsanitary conditions, partially submerged in water-filled pits and in contact with chemicals (including mercury), often developing skin conditions as a result. Many miners are away from their families for long periods and live in precarious semi-permanent encampments, where prostitution and the transmission of sexually transmitted diseases are common. Miners also engage in gambling while living in these semi-permanent encampments.	1	There are no or negligible social benefits to illegal oil palm (aside from monetary benefits). Plantation workers handle large quantities of pesticides and weed killers (glyphosate, glufosinate, metsulfuron-methyl, and paraquat – all either possible or probable carcinogens) with adverse health consequences. Oil palm plantations also result in a decrease in water quality. Compared to gold mining adverse social impacts are not as severe, which is why oil palm has a slightly higher score.	2
Learning / research benefits	There are no learning or research benefits associated with illegal mining.	1	There are no learning or research benefits associated with illegal oil palm.	1

Sum of scores	8	8

6.2 Additionality assessment

6.2.1 Barrier analysis

Type of barrier	Description of Specific Barriers	How barriers will be overcome by project activities
Financial/ economic	• Insufficient financial resourcesto develop project	• Darwin Initiative funding alongside other finance will be secured to developthe project and ongoing project management.
Technical	• Lack of capacity to initiate project development processes and activities.	• Recruitment of staff and skill strengthening for project coordinator will be undertaken • Training will be undertaken withmembers of the LPHD and cooperative, site coordinators including biodiversity inventory method, and on human rights and reducing inequality.
Institutional/ political	• Village Forest is managed and used by local communities (has to remain as forest) while ownership remains with the state. While LPHD is tasked with patrolling and monitoring illegal activities, they have no budget to do so. In addition, the authority to enforce the law is with the central government. Lack of funding and widespread disregard for national law has resulted in insufficient law enforcement.	• Project funding will support project interventions and activities that protect the Village Forest and avoid it from being converted illegally.
Ecological or resources	• Widespread environmental degradation such as soil erosion, decline in water quality, increased pollution. through the use of chemicals, fertilisers and weed killers, digging of canals and lowering of the water table and associated CO2 emissions.	• The project will support activities that maintain and restore the peatland ecosystem and enhance biodiversity.

	Increased likelihood of fires.	
Social or cultural	• Poor organisation and mobilisation of local communities and groups.	• Cooperative and LPHD members will participate in capacity building events.
Market availability	• Poor market access for goods being produced.	• Project will market credits through content creation and work with brokers, end buyers.

Project activities

Fire prevention and fire-fighting:

1.1 Support and mentor the all-female community-led Fire Patrol Team ('The Power of Mama' - TPoM).

1.2 Conduct Integrated Fire Prevention training (fire control and mitigation, SMART, drones for land monitoring for Fire Patrol Team members, TPoM.

Forest protection:

2.1 Train the Village Forest Management Unit (LPHD) and other community members in SMART, drone usage, satellite image inspections and Global Forest Watch tools.

2.2 Implement Integrated Forest Crime Alert System (IFCA) to improve forest protection and monitoring.

2.3 Provide ongoing mentoring for LPHD Patrol Team and other community members to carry out effective forest patrols and monitoring.

2.4 Support and advise LPHD on reporting of illegal activities to local authorities.

Forest restoration:

3.1 Train and mentor local cooperative members and other community members in forest restoration.

3.2 Train and mentor cooperative members in biodiversity monitoring in collaboration with Plan Vivo and Pivotal during their visit.

Certification:

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4.1 Support KMPGS cooperative and other community members to collect wild seeds, germinate and replant 80,000 native peat saplings.
4.2 Monitor seedling survival and replant as needed.
5.1 Participatory review of KMPGS structure and governance
5.2 Run trainings for KMPGS cooperative and other community members on how to facilitate benefit-sharing mechanisms, accountable and transparent financial management, grievance mechanisms, and other key aspects needed for the running of a PV certification project.
5.3 Continue mentoring KMPGS as it grows its membership
5.4 Continue collecting biodiversity data following guidance received from the project's analysis partner
5.5 Submit monitoring reports and other necessary documentation to enable third-party validation, verification and issuance alongside
5.6 KMPGS to find buyers.

Monitoring & Evaluation:

6.1 Deforestation monitoring: Landsat or sentinel imagery will be used to estimate annual deforestation rates.
6.2 Social monitoring: Conduct surveys and semi-structured interviews to assess project impacts in increasing community wellbeing, reducing poverty and shifting the local economy from an extractive model to a regenerative one
6.3 Follow the project's communications strategy for the project to maximise its visibility and impact
6.4 In coordination with project stakeholders summarise lessons learnt, challenges and successes in joint publications

Progress indicators are described in sections 4.1, 4.2 and 4.3. Corrective actions are detailed in section 4.5.

Biodiversity benefits

- Maintenance of dozens of threatened species populations, including that of the Bornean orangutan. Previous surveys documented 145 species at the site, including 13 mammals, 101 birds, 9 amphibians, and 22 reptiles. Of the observed species, 28 are protected under Indonesian Government Regulations (Minister of Environment and Forestry Regulation Number P.106), with 16 species classified as Endangered on the IUCN Red List. The selected biodiversity tool will capture data on 4 highly diverse and well-known groups (accounting for a total of >250 species), providing a reliable snapshot of the local biodiversity and allowing to measure biodiversity impact with a high degree of certainty.

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- Maintenance of functional ecosystems

- Reduced CO^2 emissions – lessening impacts of climate change on ecosystems and all the species that depend on them.

Crediting Period

- The initial crediting period is 5 years

Potential Leakage

Overall, the proposed interventions are expected to present a low risk of leakage. Fire prevention and firefighting activities are unlikely to displace burning elsewhere because fire is used to prepare specific agricultural plots and farmers cannot readily transfer this activity to other areas. These activities may instead generate wider benefits through increased awareness, employment, and improved fire-management practices. Restoration training and the planting of approximately 1,500 hectares with native peatland species are also not expected to displace activities or create additional pressure outside the Project Area.

The principal potential leakage pathway is the displacement of illegal mining, poaching, or other destructive activities following strengthened patrols. Such activities could move into neighbouring forests, potentially causing biodiversity loss or habitat degradation outside the Project Area. However, these forests are already subject to high levels of pressure, and the project is not expected to increase the historical rate of conversion significantly. To reduce this risk, the project will coordinate patrols and information-sharing with the Village Forest Protection Units in Sungai Besar and Sungai Pelang. The effectiveness of these measures, and any evidence of displaced threats, should be monitored through suitable progress and environmental indicators and addressed through adaptive management. Any residual leakage should be accounted for when estimating Biodiversity Benefits using the applicable Plan Vivo-approved Leakage Tool. Please also refer to Table 17.

Risks and Assumptions

Environmental risks:

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- Encroachment from oil palm
- Encroachment from gold mining
- Fires
- Lack of or reduced engagement in the wider community

Knowledge Transfer and Capacity Building

- Through yearly refresher trainings with all new members.
- YIARI makes use of its learning centre facility (only an hour away from Pematang Gadung village) to host workshops and learning events.

Annex 7 – Exclusion List

Activities	Included in Project ('Yes' or 'No')
Any project activities leading to or requiring the destruction [1] of critical habitat [2] or any forestry project which does not implement a plan for improvement and/or sustainable management.	☐ Yes ☒ No
Any activity which could be associated with the significant impairment of areas particularly worthy of protection of cultural heritage (without adequate compensation in accordance with international standards).	☐ Yes ☒ No
Trade in animals, plants or any natural products not complying with the provisions of the CITES/Washington convention [3].	☐ Yes ☒ No
Illegal, harvesting or trading in any wildlife resources.	☐ Yes ☒ No
Destructive fishing methods or drift net fishing with a net more than 2.5 km in length, explosives and/or poison.	☐ Yes ☒ No
Large-scale commercial logging operations for use in primary tropical moist forest.	☐ Yes ☒ No
Production or trade in wood or other forestry products other than from sustainably managed forests [4].	☐ Yes ☒ No
Exploitation of diamond mines and marketing of diamonds where the host country has not adhered to the Kimberley Process, and exploitation of other conflict minerals [5]	☐ Yes ☒ No

Activities involving harmful or exploitative forms of forced labour, [6] harmful child labour [7], modern slavery and human trafficking [8].	☐ Yes ☒ No
Projects that include involuntary physical displacement and/or forced eviction.	☐ Yes ☒ No
Production or activities that encroach on lands owned, or claimed or occupied by Indigenous Peoples, without full documented Free, Prior and Informed Consent (FPIC) of such peoples [9].	☐ Yes ☒ No
Harmful and unsafe production, use, sale or trade of pharmaceuticals, pesticides/herbicides, ozone layer depleting substances [10], and other toxic [11] or dangerous materials such as asbestos or products containing PCB's [12], wildlife or products regulated under CITES, including all products that are banned or are being progressively phased out internationally	☐ Yes ☒ No
Production or trade of arms, ammunition, weaponry, controversial weapons, or components thereof (e.g., nuclear weapons and radioactive ammunition, biological and chemical weapons of mass destruction, cluster bombs, anti -personnel mines, enriched uranium).	☐ Yes ☒ No
Procurement and use of firearms.	☐ Yes ☒ No
Provision of finances to military institutions involved in conservation or security activities.	☐ Yes ☒ No
Production or trade of strong alcohol intended for human consumption or other alcoholic beverages (excluding beer and wine).	☐ Yes ☒ No
Production or trade of tobacco and other drugs	☐ Yes ☒ No
Gambling, gaming establishments, casinos or any equivalent enterprises and undertaking [13].	☐ Yes ☒ No
Any trade related to pornography, prostitution or sexual exploitation of any form.	☐ Yes ☒ No
Production or trade in radioactive material. This does not apply to the procurement of medical equipment, quality control equipment or other application for which the radioactive source is insignificant and/or adequately shielded	☐ Yes ☒ No

Production or trade in unbound asbestos. This does not apply to the purchase or use of cement linings with bound asbestos and an asbestos content of less than 20%.	☐ Yes ☒ No
Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals. Hazardous chemicals include gasoline, kerosene, and other petroleum products.	☐ Yes ☒ No
Transboundary trade in wastes, except for those accepted by the Basel Convention and its underlying regulations [14].	☐ Yes ☒ No
Any activity leading to an irreversible modification or significant displacement of an element of culturally critical heritage [15].	☐ Yes ☒ No
Production and distribution, or investment in, media that are racist, antidemocratic or that advocate discrimination against a part of the population.	☐ Yes ☒ No
Projects involving the planting or introduction of invasive species	☐ Yes ☒ No
Projects that increase the dependency of primary participants and other stakeholders on fossil fuels.	☐ Yes ☒ No

Notes:

1. Destruction means (1) the elimination or severe reduction in the integrity of a habitat/area caused by a major and long-term/prolonged change in land-use or water resources or (2) the modification of a habitat such that this habitat's ability to fulfil its function/ role is lost.

2. The term critical habitat encompasses natural and modified habitats that deserve particular attention. This term includes (1) spaces with high biodiversity value as defined in the IUCN's classification criteria, including, in particular, habitats required for the survival of endangered species as defined by the IUCN's red list of threatened species or by any national legislation; (2) spaces with a particular importance for endemic species or whose geographical range is limited; (3) critical sites for the survival of migratory species; (4) spaces welcoming a significant number of individuals from congregatory species; (5) spaces presenting unique assemblages of species or containing species which are associated according to key evolution processes or which fulfil key ecosystem services; (6) and territories with socially, economically or culturally significant biodiversity for local communities. Primary forests or high conservation value forests must also be considered as critical habitats.

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3. https://cites.org/eng/disc/text.php

4. Sustainably managed forests are forests managed in a way that balances ecological, economic and socio-cultural needs.

5. Conflict minerals, including tin, tungsten, tantalum and gold, can be used to finance armed groups, fuel forced labour and other human rights abuses, and support corruption and money laundering. See the EU Regulation on conflict minerals: https://policy.trade.ec.europa.eu/development-and-sustainability/conflict-minerals-regulation/regulation-explained_en

6. Forced labour means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

7. Harmful child labour means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development. Employees must be at least 14 years of age, as defined in the ILO's Declaration on the Fundamental Principles and Rights at Work (C138 – Minimum Age Convention, Article 2), unless local laws require compulsory school attendance or a minimum working age. In such circumstances, the highest age requirement must be used.

8. Modern slavery is comprised two key components: forced labour and forced marriage. These refer to situations of exploitation that a person cannot leave or refuse due to threats, violence, deception or coercion. (https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---ipec/documents/publication/wcms_854733.pdf)

9. https://www.fao.org/indigenous-peoples/our-pillars/fpic/en/

10. Any chemical component which reacts with, and destroys, the stratospheric ozone layer leading to the formation of holes in this layer. The Montreal Protocol lists Ozone Depleting Substances (ODS), their reduction targets and deadlines for phasing them out.

11. Including substances included under the Rotterdam Convention, Stockholm Convention and WHO "Pharmaceuticals: Restrictions in Use and Availability".

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12. PCBs (polychlorinated biphenyls) are a group of highly toxic chemical products that may be found in oil-filled electrical transformers, capacitors and switchgear dating from 1950 to 1985.

13. Any direct financing of these projects or activities involving them (for example, a hotel including a casino). Urban improvement plans which could subsequently incorporate such projects are not affected.

14. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their disposal (1989).

15. "Critical cultural heritage" is considered as any heritage element recognised internationally or nationally as being of historical, social and/or cultural interest.

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Annex 8 – Environmental and Social Assessment Report

Annex 8 – Environmental and Social Assessment Report

Attached separately

Complete the template below/copy in from approved PIN with details of the environmental and social screening: See PIN template for context of the assessment and instructions on filling it out.	
SECTION A: PROJECT INFORMATION	
Project title:	**Pematang Gadung Community Peatland Conservation and Restoration Project**
Project coordinator:	Koperasi Mandiri Pematang Gadung Sejahtera
Country:	**Indonesia**
Geography/ landscape:	Ketapang, West Kalimantan, Indonesia
Project summary:	The Village Forest of Pematang Gadung boasts rich biodiversity as a coastal peatland habitat, housing Bornean orangutans, Bornean agile gibbons, five species of hornbill, and numerous other threatened species. Employment opportunities are limited, predominantly revolving around agriculture and bauxite mining. Through the KMPGS committee, the project aims to transition the local economy from extractive practices to regenerative ones by leveraging the Plan Vivo Nature Standard. This approach seeks to scale and finance this shift equitably and transparently over time.

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Name and role of project coordinator staff member filling this questionnaire:	Advisor
Confirm that the Plan Vivo Exclusion List is appended to this E&S questionnaire:	*Yes*

SECTION B: POTENTIAL E&S RISKS AND IMPACTS			
Topic	**Question**	**Project coordinator response**	**E&S reviewer comments**
E&S Risks and Impacts			
Vulnerable Groups	Are there vulnerable or disadvantaged groups or individuals, including people with disabilities (consider also landless groups, lower income groups less able to cope with livelihood shocks/ stresses) in the project area, and are their livelihood conditions well understood by the project?	The Village Forest is legally to be used and managed by the whole community. The project will undertake a more thorough assessment in terms of what percentage of the households can be considered particularly vulnerable or disadvantaged.	*It is fine to have this take place at PDD stage, once in place the project will have to put in place its appropriate mitigation measures.*
	Is there a risk that project activities disproportionately affect vulnerable groups, due to their vulnerability status?	We do not consider this to be a substantial risk. We will engage households most dependent on logging and unsustainable agriculture to ensure they can earn equivalent incomes through	*Thank you for your response, this is a suitable strategy. Please outline this strategy further in the PDD.*

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		lower-risk livelihoods (particularly from a health and safety perspective) while benefiting from additional non-monetary wellbeing increases from project activities.	
	Is there a risk that the project discriminates against vulnerable groups, for example regarding access to project services or benefits and decision-making?	The KMPGS cooperative governance structure will reduce inequality as compared to the status quo, where decision-making is exercised almost exclusively by the village head and a handful of other top village representatives.	*Thank you for this response, the governance structure is seen as potentially highly beneficial for community empowerment. Please outline plans for the decision-making governance in the PDD.*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 - Low risk due to the nature of the community governance structure* *Estimated magnitude of risks (1-5) & justification: 1 - Low magnitude due to the project's mitigation strategy* *Risk significance: Low*			
Gender equality	Is there a risk of adverse gender impacts due to the project/ project activities, including for example discrimination or	No, the project does not consider this a risk given how well the women's fire prevention and	*This is appropriate reasoning.*

	creation/exacerbation or perpetuation of gender-related inequalities?	fire-fighting group has been received.	
	Is there a risk that project activities will result in adverse impacts on the situation of women or girls, including their rights and livelihoods? Consider for example where access restrictions disproportionately affect women and girls due to their roles and positions in accessing environmental goods and services?	No, the project does not consider this a risk given how well received the women's fire prevention and fire-fighting group has been, and the additional opportunities that will be created through the scaling up of the peat restoration and nursery management, which have historically been managed by women.	*Again, this project seems well placed to reduce this risk significantly.*
	Is there a risk that project activities could cause or contribute to gender- based violence, including risks of sexual exploitation, sexual abuse or sexual harassment (SEAH)? Consider partner and collaborating partner organizations and policies they have in place. Please describe.	No, the project is being facilitated by the village cooperative, there will be no new external partner organisations coming into this landscape.	*Given the above this is an adequate response. With a robust grievance mechanism developed at PDD stage, it is believed the risks associated with gender will be minimal.*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 1 - The project has a history of encouraging gender inclusion, so this is seen as a minimal risk. Estimated magnitude of risks (1-5) & justification: 1 - Though the impact of this would be felt across the community, the project mitigates for this within its interventions. Hence, the magnitude of this project impacting gender equality is low.*			

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Risk significance: Low			
Human Rights	Is there a risk that the project prevents peoples from fulfilling their economic or social rights, such as the right to life, the right to self-determination, cultural survival, health, work, water and adequate standard of living?	Efforts will be made to engage every miner and every farmer to support them in various ways to shift from unsustainable livelihoods to sustainable ones. Supporting livelihood shifts always involves risk, but the project is confident it can mitigate them through a highly adaptive management approach and providing the necessary resources and support. Ultimately, the project believes it will be offering better conditions and better ways to earn a living.	*Strong reasoning, and prudent to highlight the need for adaptive management to mitigate this risk. There seems to be a clear appreciation of the likely risks from the project. Please outline adaptive management plans in the PDD.*
	Is there a risk that the project prevents peoples from enjoying their procedural rights, for example through exclusion of individuals or groups from participating in decisions affecting them?	No, on the contrary, the cooperative structure will increase inclusivity, participation, and transparency.	*It will be interesting to hear more about this at PDD stage, and more details on how it will take place within the community cooperative structure.*
	Are you aware of any severe human rights violations linked to project partners in the last 5 years?	No, the project is not aware of any human rights violations	*This is an appropriate response.*

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		linked to any project partners over the past 5 years.	
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 - The project appreciates it is likely some members of the community will move away from their livelihood practices. However, this outcome is incorporated into the project logic. Generally, the risk of this project for human rights is considered low.* *Estimated magnitude of risks (1-5) & justification: 2 - Also, low as the project has incorporated mitigation measures into its interventions, as mentioned by the project there may be teething pains due to local stakeholders changing land management practices, and thus their livelihoods in the short-term, it is the secretariat's belief that this is being mitigated sufficiently by the project.* *Risk significance: Low*			
Community, Health, Safety & Security	Is there a risk of exacerbating existing social and stakeholder conflicts through the implementation of project activities? Consider for example existing conflicts over land or natural resources, between communities and the state.	No, land tenure is clear. The project is not aware of any conflicts between communities and state or between communities. The three Village Forests are clearly and legally delineated, and there is no ambiguity over land rights. Although all of the forest belongs to the State, the Village Forest licence is a tested instrument to recognise local	*All clear here*

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		customary rights which has been in use since 2008.	
	Does the project provide support (technical, material, financial) to law enforcement activities? Consider support to government agencies and to Community Rangers or members conducting monitoring and patrolling. If so, is there a risk that these activities will harm communities or personnel involved in monitoring and patrolling?	Communities cannot perform law enforcement; only government agencies can. However, the project will conduct patrols and will report any illegal activities to government authorities if and when their involvement is necessary. Given past experience of patrols in this landscape, the project does not believe patrols will lead to any physical (or other) risk for those involved in patrols.	*Ok, please outline in the PDD, protection measures for patrols.*
	Are there any other activities that could adversely affect community health and safety? Consider for example exacerbating human-wildlife conflict, affecting provisioning ecosystem services, and transmission of diseases.	No, project activities will not pose health and safety risks. Cooperative members involved in monitoring, replanting and fire-fighting will receive relevant training, including specific health	*Ok, understood. Please outline the relevant training for members in the PDD.*

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		and safety protocols. Project activities will not exacerbate human-wildlife conflicts; on the contrary, they will limit them by stemming the spread of mining operations within the boundaries of the village forest.	
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 This is unlikely to occur due to the project coordinators close relationship with the community and experience in the area.* *Estimated magnitude of risks (1-5) & justification: 3 The magnitude of this is considered moderate also, due to the opportunity cost of the activities causing deforestation, and potential rebuttal of the project's proposals. However, it is accepted that the project is proactively mitigating this risk.* *Risk significance: Low*			
Labour and working conditions	Is there a risk that the project, including project partners, would lead to working conditions for project workers that are not aligned with national labour laws or the International Labor Organization's (ILO) Declaration on the Fundamental Principles and Rights at Work (discriminatory working conditions, lack of equal opportunity, lack of clear employment terms, failure to prevent harassment or exploitation, failure to ensure freedom of association etc.)?	No, the cooperative has clear guidelines in line with Indonesian national law and ILO.	*This response is adequate, it will be interesting to see what this means in practice outlined in the PDD.*

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	Is there an occupational health and safety risk to project workers while completing project activities?	No, on the contrary health and safety risks will be reduced as compared to the status quo for the approximately 276 households dependent on mining. Cooperative members involved in monitoring, replanting and fire-fighting will receive the relevant training, which will include specific health and safety protocols.	*Ok, understood. Please outline the relevant training for members in the PDD.*
	Is there a risk that the project support or be linked to forced labour, harmful child labour, or any other damaging forms of labour?	No, on the contrary these risks will be reduced as compared to the status quo for the approximately 276 households dependent on mining. The project does not believe there is any forced labour in mining-dependent households. However, children often spend time at the mining sites with	*Ok, thanks for the additional information. Please outline mitigation measures to prevent the potential for harmful child labour at the PDD.*

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		their parents and are therefore exposed (as are their parents) to dangerous chemicals used in the extraction of gold.	
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 - This is considered low risk of taking place due to projects reasoning, and its planned mitigation strategies* *Estimated magnitude of risks (1-5) & justification: 2 - The magnitude is also considered low, as the project is proactively seeking to improve labour conditions.* *Risk significance: Low*			
Resource efficiency, pollution, wastes, chemicals and GHG emissions	Is there a risk that project activities might lead to releasing pollutants to the environment, cause significant amounts of waste or hazardous waste or materials?	No, on the contrary these risks will be much reduced as compared to the baseline where dangerous pollutants are released into rivers as a result of mining operations.	*This response is appropriate. The activities of the project fall contrary to the scenario.*
	Is there a risk that the project will lead to significant consumption of energy, water or other resources, or lead to significant increases of greenhouse gases?	No, on the contrary the project will sequester CO^2 through its conservation and restoration efforts.	*This response is appropriate. The activities of the project fall contrary to the scenario.*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 1 - the project's activities have minimal risk of exacerbating the environmental conditions in the project area.*			

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Estimated magnitude of risks (1-5) & justification: 1 - though this would have a strong impact, that impact is minimal through the project's activities. *Risk significance: Low*			
Access restrictions and livelihoods	Will the project include activities that could restrict peoples' access to land or natural resources where they have recognised rights (customary, and legal)? Consider projects that introduce new access restrictions (e.g. creation of a community forest), reinforce existing access restrictions (e.g. improve management effectiveness and patrolling of a community forest), or alter the way that land and natural resource access restrictions are decided (e.g. through introducing formal management such as co-management).	No, land tenure is already clear. Mining operations and burning (both illegal in this landscape) will be discouraged through consultations and agreement across the entire community. The cooperative will never have a mandate to restrict, (although this is community land to use and manage), it is always the responsibility of the Indonesian government to enforce law or restrict. A certain amount of timber extraction (50 cubic metres per year) is legally allowed in village forests. The project however aims to keep this to a minimum. Logging is not a significant threat to the project area at this	*Ok, understood. Please outline the plans for the consultations with the community in the PDD.*

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		time and the project aims to keep this threat low.	
	Is there a risk that the access restrictions introduced /reinforced/altered by the project will negatively affect peoples' livelihoods?	Efforts will be made to engage each and every miner and each and every farmer to support them in a variety of ways to shift from unsustainable livelihoods to sustainable ones. There are always risks involved in supporting livelihood shifts, but the project is confident it can mitigate these risks taking a highly adaptive management approach and providing the resources and support necessary. Ultimately, the project believes it will be offering better conditions and better ways of earning a living.	*Thank you for your response, it is clear and reasonable. Please outline these efforts to support alternative livelihoods to farmers in the PDD.*
	Have strategies to avoid, minimise and compensate for these negative impacts been identified and planned?	Yes, the project will specifically target households who are most dependent on mining to ensure they are the first to benefit if	*Great to hear, it will be interesting to see this develop at PDD stage.*

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		they move away from mining. The project also benefits from advisory support building on 17+ years of experience, implementing a wide range of sustainable livelihoods strategies and a successful revolving fund initiative.	
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 - The project reasons that this may take place, though its mitigation strategies reduce the likelihood of this negatively impacting livelihoods. The access restrictions already exist by law.* *Estimated magnitude of risks (1-5) & justification: 2 - The magnitude of this is considered low due to the project's proactive activities to mitigate for this. This is dependent on further details being shared at PDD stage.* *Risk significance: Low*			
Cultural heritage	Is the Project Area officially designated or proposed as a cultural site, including international and national designations?	No, the site is not part of any national or international cultural designations	*These responses are clear and justified clearly. It is evident this is low risk.*
	Does the project site potentially include important physical cultural resources, including burial sites and monuments, or natural features or resources of cultural significance (e.g. sacred sites and species, ceremonial areas) and is there risk that the project will negatively impact this cultural heritage?	No, there are no known important burial sites or monuments.	*These responses are clear and justified cleared. It is evident this is low risk.*

	Is there a risk that the project will negatively impact intangible cultural heritage? Consider for example cultural practices, social and cultural norms in relation to land and natural resources.	No, mining is not part of any intangible cultural heritage and clearing agricultural through burning, while historically practiced does not hold any special cultural significance locally.	*These responses are clear and justified cleared. It is evident this is low risk.*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 1 - Given the evidence it is not expected that the project will have a negative impact on the cultural heritage in the area.* *Estimated magnitude of risks (1-5) & justification: 1 - The impact of such eventualities are also considered negligible due to the likelihood of them taking place.* *Risk significance: Low*			
Indigenous Peoples	Are there Indigenous Peoples living within the Project Area, using the land or natural resources within the project area, or with claims to land or territory within the Project Area?	There are local Melayu people whom have been there for approximately ~200-300 years. Land tenure is clear – it is a Village forest.	*Thank you for this, this gives extra context to the peoples living in the area.*
	Is there a risk that the project negatively affects Indigenous Peoples through economic displacement, negatively affects their rights (including right to FPIC), their self- determination, or any other social or cultural impacts?	No. Efforts will be made to engage each and every miner and each and every farmer to support them in a variety of ways to shift from	*This response is clear and justified cleared. It is evident that although a risk, the project is mitigating for this eventuality. Please outline these efforts of*

		unsustainable livelihoods to sustainable ones. There are always risks involved in supporting livelihood shifts, but the project is confident it can mitigate these risks taking a highly adaptive management approach and providing the resources and support necessary. Ultimately, the project believes it will be offering better conditions and better ways of earning a living.	*engagement with the miners and farmers in the PDD.*
	Is there a risk that there is inadequate consultation of Indigenous Peoples, and/or that the project does not seek the FPIC of Indigenous Peoples, for example leading to lack of benefits or inappropriate activities?	No, the project is structured to be as inclusive and participatory as possible through its cooperative governance structure. All community members will be part of an ongoing consultation process to ensure benefits flow equitably	*Thank you for providing this justification. It is evident that through the project's governance structure it is mitigating for this eventuality.*

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		and activities continue to address local needs.	
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 - This is unlikely to happen, though we look forward to seeing further information about the projects governance structure once the thorough stakeholder mapping has taken place at PDD stage.* *Estimated magnitude of risks (1-5) & justification: 2 - The magnitude of this is also considered low, due to the planned governance structure. Careful attention will be given to this at PDD stage.* *Risk significance: Low*			
Biodiversity and sustainable use of natural resources	Is there a risk that project activities will cause adverse impacts on biodiversity (both in areas of high biodiversity value, and outside of these areas) or the functioning of ecosystems? Consider issues such as use of pesticides, construction, fencing, disturbance etc.	No, on the contrary, the goal of the project will be to stabilize and enhance biodiversity in this landscape.	*On assessment of the baseline scenario this is almost certainly true.*
	Is there a risk that the project will introduce non-native species or invasive species?	No, the only tree species planted will be native to peat and the area. Most seeds and seedlings will be collected from the adjacent forest.	*Thank you for this response. All good here.*
	Is there a risk that the project will lead to the unsustainable use of natural resources? Consider for example projects promoting value chains and natural resource-based livelihoods.	No, on the contrary this project's goal is to reduce unsustainable practices. Conversion of the Village Forest to agricultural land, such as oil palm plantations	*Thanks, for this, this should considered in the project's leakage analysis at PDD stage.*

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		or other is illegal and community members are aware. Conversion of adjacent areas (where this is legal may happen) but this will be unrelated to what happens within the project area (where conversion is illegal irrespective of project activities).	
	Is there a risk that the project will lead to the exploitation of any wildlife? Consider the animal or plant groups being monitored under the PV Nature Methodology and how this will impact other groups.	The project does not think that monitoring and patrolling activities will lead to wildlife exploitation. The cooperative will take any instance of opportunistic hunting of protected species very seriously and penalise the person(s) under existing Village Forest regulations. Ultimately, the project believes it will be able to offer substantial benefits which will far outweigh	*The response provided here is clear and concise. It is viewed as implicit within the project's activities that it will mitigate for this. Please outline mitigation measures to prevent poaching activities in PDD.*

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		the benefits of opportunistic hunting.	
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 1 - It is considered that the project presents very little risk to exacerbating biodiversity or sustainable use of resources in the project area.* *Estimated magnitude of risks (1-5) & justification: 1 - Again the impact on biodiversity and sustainable use of resources is considered positive so the magnitude of this risk is also considered low.* *Risk significance: Low*			
Land tenure conflicts	Has the land tenure and use rights in the project area been assessed and understood?	Yes, the land in the project area is a Village Forest and is very well understood. As with all Village Forests, Pematang Gadung needs to prepare yearly and longer-term workplans to be submitted to the government.	*ok, understood*
	Is there a risk that project activities will exacerbate any existing land tenure conflicts, or lead to land tenure or use right conflicts?	No, the project does not believe activities will lead to land tenure conflicts, because the project isn't fundamentally trying to change the management and use of the forest area; it is trying	*The project is aiming to reinforce the current land tenure in the region, it would seem that the transition of individuals from mining to other land use activities might provide some conflict. It would also be*

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		to stop the spread of the illegal mining operations. Any villagers working in the illegal mining locations know it is illegal to do so in this area – the village forest license clearly forbids any conversion activities including mining. The project does not therefore expect land tenure conflict. We expect active miners to avoid contact with patrolling teams, but not to have confrontational or conflictual behaviour. There is no reason to believe restoration activities will cause any conflicts in the future, as it has not caused any until now. Burnt and degraded land is not being used for crops or other uses and involved villagers so far are grateful to have employment to replant the area.	*interesting to know at PDD stage if there is any risk of the restoration interventions potentially causing land use conflict.* *Finally, in the region is there any other finance coming in for conservation, and is there a risk of conflict as a result.* *Just to add, in light of the information about tropenbos, this should be highlighted in the additionality section, and it should be explained how what tropenbos currently provide is not sufficient for the project to achieve its patrolling objectives. This should also be outlined in the PDD in greater detail.*

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		There is some finance coming into the landscape – Tropenbos is funding some patrolling activities, but efforts with this project will be complementary. Tropenbos and the cooperative will ensure workplans are complementary and mutually reinforcing.	
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 this is currently unlikely to happen due to the project's theory of change and mitigation strategies.* *Estimated magnitude of risks (1-5) & justification: 2 Also low due to the projects planned mitigation measures, therefore impacting less people across the community* *Risk significance: Low*			
Risk of not accounting for climate change	Have trends in climate variability in the project areas been assessed and understood?	No, not in detail, although the increasingly long dry seasons are being taken into account in terms of additional efforts in fire detection and fire-fighting.	*Thank you for the response. This is something that will need to be explored in more detail at PDD stage.*
	Has the climate vulnerability of communities and particular social groups been assessed and understood?	No, not in detail, although some aspects are tied to extended drought periods in the dry	*Thank you for the information provided here, again further exploration into this at the PDD*

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		season increasing the occurrence of floods.	*stage would help the project attempt some mitigation measures during the project life cycle.*
	Is there a risk that climate variability and changes might influence the effectiveness of project activities (e.g. undermine project-supported livelihood activities) or increase community exposure to climate variation and hazards? Consider floods, droughts, wildfires, landslides, cyclones, etc.	Yes, increasingly long dry seasons will increase fire risk. The Project will intensify fire-prevention activities, train other actors in the landscape and restore peat to increase its overall resilience to fire.	*This is good to hear, and encouraging that the project is already mitigating for this risk.*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 3 - due to climate change projections, the risk of this impacting the project is likely* *Estimated magnitude of risks (1-5) & justification: 3 - The magnitude of this is potentially major, however this project is fully aware and planning to mitigate against this. Despite its potential of impacting a large group of people and spatial extent, we consider this medium* *Risk significance: (3) Moderate*			
Risk of digital tool use	Is there a risk that communities and other local stakeholders, especially marginalised or conflict-affected groups, may be unaware of how and where digital technologies will be deployed and how the data will be used (refer back to relevant FPIC processes).	No, digital technology individual-level data will not be collected, analysed or published. Camera trap images of people will be deleted.	
	If illegal or private activities are captured using digital technologies, will it increase the likelihood of conflict within	No, digital technology individual-level data will not be collected,	

	the community or cause harm to vulnerable groups? Consider the potential for captured data to be shared with government authorities, leading to marginalisation and/or exploitation.	analysed or published. Camera trap images of people will be deleted.	
	Is the project able to store data in a way that protects the privacy of individuals? Are there existing national laws and/or regulations that support data protection and privacy, which the project should comply with (for example, GDPR regulations)? Please describe the measures in place to ensure this (e.g. Data Management Plan).	Camera trap images of people will be deleted. Any socio-economic data will be stored using a coding system to avoid identification of individuals and maintain anonymity in all cases.	
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification:* *Estimated magnitude of risks (1-5) & justification:* *Risk significance:*			
Other – eg. cumulative impacts	Is there a risk that the project will contribute cumulatively to existing environmental or social risks or impacts, for example through introducing new access restrictions in a landscape with existing restrictions and limited land availability?	No, the project is not changing the fundamental way the land is used by introducing new access restrictions. The project will just limit the spread of illegal mining, which is just starting to creep inside the boundaries of the Village Forest and support a move away from burning in agriculture.	*This has already been covered in previous sections and will be outlined further in the PDD.*

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	Are there any other environmental and social risks worthy of note that are not covered by the topics and questions above?	No	*Ok.*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 1 - Not expected to occur* *Estimated magnitude of risks (1-5) & justification: 1 - Negligible* *Risk significance: Low*			
SECTION C: SAFEGUARD PROVISIONS			
Stakeholder engagement: requirements 2.1.1-2.1.3	Has a stakeholder analysis been conducted that has identified all stakeholders that could influence or be affected by the project, or is this still to be completed? Please describe.	Still to be completed	*A thorough stakeholder analysis will be expected at PDD stage.*
	Are the local community and indigenous peoples statutory or customary rights to land or resources within the project area already clear and documented, or is further assessment required? Please describe.	Yes. Land rights for Pematang Gadung village forest are clear and documented.	*Thank you, this is documented in the main body of the PIN and to be included in the PDD as well.*
	Are local governance structures and decision-making processes described and understood (including details of the involvement of women and marginalized or vulnerable groups), or is further assessment required? Please describe.	Traditional governance structures in the Village government and the LPHD are very well understood and do not have any explicit way of encouraging the participation of women and other disadvantaged groups. The project's	*You have provided a clear and concise response here. The governance structure is understood, it would be helpful to understand a little more how culture might impact the decision making process during the project lifecycle within the*

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		cooperative structure will develop processes to ensure women take leading roles in project work-streams and activities, such as those concerning tree nurseries, peat restoration, fire prevention and fire-fighting.	*governance structure and outlined in the PDD.*
	Are past or ongoing disputes over land or resources in the project area known and documented, or is there need for further assessment? Please describe.	It took a while to complete participatory mapping between Pematang Gadung and one of its adjacent villages, but the mapping was completed successfully as part of the Village Forest application. No disputes over land in the project area are known to have occurred.	*Thank you for the response, this is now understood to be low risk.*
Stakeholder consultation: requirements 2.5.1 and 2.5.2	Does the project have a Stakeholder Engagement Plan with clear measures to engage Vulnerable Groups, or is this plan still to be developed? Please describe.	The project has a communication and engagement strategy which includes speaking to illegal mining groups yearly.	*This is acceptable at this stage, and we look forward to seeing it progress at PDD stage.*

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	Has the Project Coordinator informed all stakeholders of the project, through providing relevant project information in an accessible format, or does this still need to be completed? Please describe.	Still to be completed	*This is acceptable at this stage, and we look forward to seeing it progress at PDD stage.*
Free, Prior and Informed Consent: requirements 2.6.1-2.6.4	Has the project analysed and understood national and international requirements for Free Prior and Informed Consent (FPIC)? Please describe.	Yes, the project uses FAO FPIC guidelines, the National Forestry Council and UN-REDD Programme Indonesia guidelines for FPIC, the UN-REDD Programme Guidelines on Free, Prior and Informed Consent, and the Social and Biodiversity Impact Assessment (SBIA) Manual for REDD+ Projects.	*Understood.*
	Has the project identified potential FPIC rights holders and potential representatives in local communities and among indigenous peoples, or is this still to be completed? Please describe.	Yes, the entire community holds FPIC rights.	*Thank you for providing this.*
	Has the project worked with rightsholders and representatives of local communities and indigenous peoples to understand the local decision-making process and timeline (ensuring involvement of women and vulnerable groups), or is this still to be completed? Please describe.	The project is working closely with rightsholders; community representatives have shown broad support for the project, but the project has not started	*Understood, this will be expected to take place during the PDD stage.*

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		formal consultation yet and there is no timeline yet.	
	Has the project sought consent from communities to 'consider the proposed Project', and if so, where is this in principle consent documented? Please describe.	Not yet	*Understood, this will be expected to take place during the PDD stage.*
Grievance Redress Mechanism: requirements 3.16.1	Does the project already have a Grievance Redress Mechanism (GRM), or is this still to be established? Please describe.	Not yet	*Understood, this will be expected to take place during the PDD stage.*
	For projects with a GRM, is this accessible to project affected people? Please describe.	NA	*Understood, this will be expected to take place during the PDD stage.*

E&S reviewer conclusions for safeguard provisions

The project will address Safeguard Provisions during the PDD stage, this has been accepted by the secretariat.

What additional actions need to be conducted during the project design phase?

Stakeholder mapping, engagement and active consultation; FPIC and grievance mechanism are still pending. We will follow this closely during the PDD stage.

SECTION D: SCREENING REPORT (NOT TO BE COMPLETED BY PROJECT: FOR USE OF PV E&S REVIEWER)	
Name of E&S reviewer	***Harry Tittensor***
Date of E&S screening:	***30/5/2025***

<table>
<tr><td>Project risk rating:</td><td>Low risk due to a low risk rating accounted throughout the E&S assessment.</td></tr>
<tr><td>Principle risks and impacts</td><td><Include summary of key project risks & impacts>
<table>
<tr><th>E&S topic/ risk area</th><th>Likelihood (1-5)</th><th>Magnitude (1-5)</th><th>Significance (low, moderate, severe, high)</th></tr>
<tr><td>Vulnerable Groups</td><td>2</td><td>1</td><td>Low</td></tr>
<tr><td>Gender equality</td><td>1</td><td>1</td><td>Low</td></tr>
<tr><td>Human Rights</td><td>2</td><td>2</td><td>Low</td></tr>
<tr><td>Community, Health, Safety & Security</td><td>2</td><td>2</td><td>Low</td></tr>
<tr><td>Labour and working conditions</td><td>2</td><td>2</td><td>Low</td></tr>
<tr><td>Resource efficiency, pollution, wastes, chemicals and GHG emissions</td><td>1</td><td>1</td><td>Low</td></tr>
<tr><td>Access restrictions and livelihoods</td><td>2</td><td>2</td><td>Low</td></tr>
<tr><td>Cultural heritage</td><td>1</td><td>1</td><td>Low</td></tr>
<tr><td>Indigenous Peoples</td><td>2</td><td>2</td><td>Low</td></tr>
<tr><td>Biodiversity and sustainable use of natural resources</td><td>1</td><td>1</td><td>Low</td></tr>
<tr><td>Land tenure conflicts</td><td>2</td><td>2</td><td>Low</td></tr>
<tr><td>Risk of not accounting for climate change</td><td>3</td><td>3</td><td>Moderate</td></tr>
</table></td></tr>
</table>

	<table><tr><td>Other – eg. cumulative impacts</td><td>1</td><td>1</td><td>Low</td></tr></table>
E&S assessment required	*Please provide further information in the following sections:* • *Vulnerable Groups* • *Community, Health, Safety and Security* • *Labour and Working conditions* • *Land Tenure Conflicts* • *Biodiversity and Sustainable use of natural resources* • *Land Tenure Conflicts* *This project is currently considered low risk, nonetheless please provide the extra information requested so the assessment can be completed.* *The PDD should include a thorough E&S assessment (and ESA scoping report) where each risk is evaluated by the (relevant) project participants, and management/mitigation measures are collectively decided upon and implemented. Focus should be on the two 'moderately' rated risks identified above. This should then be translated into a thorough E&S Management Plan in the PDD, where individual risks are identified, and management/mitigation measures are detailed and subsequently monitored throughout the project period.*

	Mitigation risk management will be needed for the areas rated as moderate, so labour and working condition and accounting for climate change. This will need to be developed as part of the PDD. Additionally, the project will have to continue to manage and mitigate the impact of Tropenbos's relationship with the community and the projects impact on the participants and project area.
Likely safeguard plans required	*E&S Management Plan*

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A typical ESA report would cover many of the items in the Table of Contents below. Note that where this information is presented elsewhere in the PDD, then text can be duplicated, or sections of the PDD can be referred to, to reduce time and effort on duplicating report writing.

Introduction

- Purpose and objectives of the assessment
- Scope of the assessment
  - Aims and objectives of the assessment
  - E&S risks and impacts assessed
  - Geography of the assessment
  - Reference framework
    - National legislation
    - International Standards
    - PV E&S requirements

Project background

- Location
- Objectives and activities
- Timeframe and budget
- Partners

Social and environmental context

- Characterisation of the socioeconomic context
- Environmental context

Assessment approach and methodology

- Approach
  - Risk framework and/or other assessment criteria
- Methodology

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- o Sampling strategy
- o Methods
- Assessment team
- o Team members, skills and experience
- o Challenges and limitations Þ Assessment findings
- Summary of key findings
- Description of results by E&S risk and impact topic
- o Risk significance
- o Key gaps
- o Recommendations

Roadmap to developing the Environmental and Social Management Plan (ESMP)

- Workplan with the activities to finalise the ESMP

To include in Annex 10 'E&S Assessment Report' (for example)

- Plan Vivo E&S screening results summary
- Summary of national legislation and international standards (reference framework)
- Results of the stakeholder analysis
- List of stakeholder consultations conducted; photos of fieldwork activities. o Draft ESMP

(and any other relevant safeguard plans).

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Annex 9 – Land Management Plans

NA

Annex 10 – Project Agreements

NA

Annex 11 – Monitoring Plan

Attached separately

Annex 12 – Project Database

Currently data is recorded and analysed in Google Studio.

Annex 13 – Letter of Approval

The KMPGS Cooperative obtained legality through the Decree of the Minister of Law and Human Rights of the Republic of Indonesia with decree number AHU-0003874.AH.01.29 (see below – a translation can be provided upon request). In addition, KMPGS Cooperative is also registered with the Ministry of Finance of the Republic of Indonesia through the Directorate General of Taxes, West Kalimantan DJP Regional Office, with the number: S-15132/KT/KPP.130303/2024.

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KEPUTUSAN MENTERI HUKUM DAN HAK ASASI MANUSIA REPUBLIK INDONESIA
NOMOR AHU-0003874.AH.01.29.TAHUN 2024
TENTANG
PENGESAHAN PENDIRIAN BADAN HUKUM
KOPERASI KONSUMEN MANDIRI PEMATANG GADUNG SEJAHTERA

Menimbang : a Bahwa berdasarkan Permohonan RIYA YANUARTI S.H., M.Kn., sesuai salinan Akta Nomor 01 Tanggal 04 Oktober 2024 yang dibuat oleh RIYA YANUARTI S.H., M.Kn., tentang Pendirian Badan Hukum KOPERASI KONSUMEN MANDIRI PEMATANG GADUNG SEJAHTERA tanggal 10 Oktober 2024 telah sesuai dengan persyaratan pengesahan Pendirian Badan Hukum Koperasi;

b Bahwa berdasarkan pertimbangan sebagaimana dimaksud dalam huruf a, perlu menetapkan keputusan Menteri Hukum dan Hak Asasi Manusia tentang Pengesahan Pendirian Badan Hukum KOPERASI KONSUMEN MANDIRI PEMATANG GADUNG SEJAHTERA.

M E M U T U S K A N :

Menetapkan :

KESATU : Mengesahkan pendirian badan hukum - KOPERASI KONSUMEN MANDIRI PEMATANG GADUNG SEJAHTERA - yang berkedudukan di KABUPATEN KETAPANG karena telah sesuai dengan Data Format Isian Pendirian yang disimpan di dalam database Sistem Administrasi Badan Hukum Koperasi sebagaimana salinan Akta Nomor 01 Tanggal 04 Oktober 2024 yang dibuat oleh RIYA YANUARTI S.H., M.Kn., yang berkedudukan di KABUPATEN KETAPANG.

KEDUA : Keputusan ini berlaku sejak tanggal ditetapkan.
Apabila ternyata dikemudian hari terdapat kekeliruan dalam Keputusan ini maka akan diadakan perbaikan sebagaimana mestinya.

Ditetapkan di Jakarta, 16 Oktober 2024.

a.n. MENTERI HUKUM DAN HAK ASASI MANUSIA
REPUBLIK INDONESIA
DIREKTUR JENDERAL ADMINISTRASI HUKUM UMUM,

Cahyo Rahadian Muzhar, S.H., LLM.
NIP : 19690918 199403 1 001

DICETAK PADA TANGGAL 16 Oktober 2024

TEMBUSAN :
MENTERI KOPERASI DAN USAHA KECIL DAN MENENGAH

Annex 14 – Financial Plan

Project development will be financed through philanthropic funding and statutory grant finance during the development phase. Once certificates are issuable, grant finance will be phased down.

Costs:

Project operations at the baseline level amount to ~$300,000 USD (~50% split between wages and operational costs) per year. This corresponds to an involvement of approximately 75 people (25 fire-prevention and fire-fighters; 20 patrollers and biodiversity monitors; 30 reforestation staff). Certification, issuance, third-party auditing and technical support costs amount to an additional ~$50,000 USD per year. National levies and taxes are currently unknown. Therefore, at the development stage yearly costs amount to approximately $350,000.

Potential income:

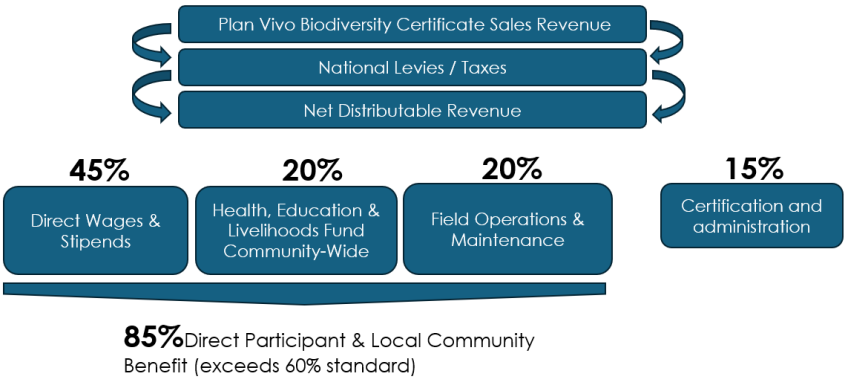
Conservation credits: A maximum of 75,000 issued per year

Restoration credits: Approximately 1,500 issued per year

Given historic trends we can expect a price of approximately $15-20USD per certificate, resulting in a total potential revenue of ~$1,500,000USD per year. This level of income is highly dependent on effective marketing and sales and how the market receives these pilot projects. This will allow the project to scale protection and restoration efforts about 4-7 times compared to the baseline and involve up to 500 households, with benefits reaching an even higher number of households.

More specifically, the project expects that after accounting for levies and taxes and certifications costs, an estimated 45% will go into paying for the salaries of patrollers and fire-fighters, forest restorers and wildlife monitors.

An estimated 20-25% will go into paying for operational and maintenance expenses (fire-fighting equipment, wildlife monitoring equipment, etc.).



An estimated 20% will go into a health, education and livelihoods fund to ensure basic needs of the villagers (especially of particularly vulnerable and marginalised groups) are met.

An estimated 10-15% will go towards paying for ongoing certification costs (this percentage will decrease with sales totaling >$350,000 USD). This will mainly include ongoing Plan Vivo certification fees, analysis fees, third-party verification costs and may include advisory fees for specific technical tasks that cannot be covered by members of the cooperative.
As the project moves into PDD phase and beyond, cooperative members will continue to be able to influence how funds are split between these categories through a customary *Musyawarah* consultation and deliberation mechanism. This is part of the project's participatory approach and facilitated by its governance structure.

Thus all future (scaled-up) project management and operating costs can be sourced through certificate sales.

Annex 15 – AI Tool Use Disclosure

Declaration of AI Tool use

1. Have AI tools been used in the creation or presentation of information within this PDD? ☒ Yes ☐ No
2. If 'Yes' (to Question 1), please specify how these tools were used and in which sections of this document:

Section	Purpose of AI Tool Use	AI-Tools Used
3.5	To draft intermediate (year by year) targets for each indicator	Claude AI
Whole document	Check for inconsistencies across the document	Claude AI

Appendix 1 – Criteria for Key Biodiversity Areas

A. Threatened biodiversity		
A1 Threatened species		Assessment parameters
A1a	≥0.5% of global population size and ≥5 reproductive units (RU) of a CR/EN species	(i) no. of mature individuals (ii) area of occupancy (iii) extent of suitable habitat (iv) range (v) no. of localities (vi) distinct genetic diversity
A1b	≥1.0% of global population size and ≥10 RU of a VU species	
A1c	≥0.1% of global population size and ≥5 RU of a species listed as CR/EN due only to past/current decline [= Red List A1, A2, A4 only]	
A1d	≥0.2% of global population size and ≥10 RU of a species listed as VU due only to past/current decline [= Red List A1, A2, A4 only]	
A1e	Effectively the entire population size of a CR/EN species	
A2 Threatened ecosystem types		
A2a	≥5% of global extent of a CR or EN ecosystem type	
A2b	≥10% of global extent of a VU ecosystem type	
B. Geographically restricted biodiversity		
B1 Individual	≥10% of global population size and ≥10 RU of any species	(i) no. of mature individuals

Appendix 2 – Criteria for Important Plant Areas

Sub-criterion	Threshold
(A) Threatened species	
A(i) Site contains one or more **globally threatened** species	Site known, thought or inferred to contain **≥1%** of the global population AND/OR **≥5%** of the national population OR the **5 "best sites"** for that species nationally, whichever is most appropriate
A(ii) Site contains one or more **regionally threatened** species	Site known, thought or inferred to contain **≥5%** of the national population, OR the **5 "best sites"** for that species nationally, whichever is most appropriate
A(iii) Site contains one or more **highly restricted endemic** species that are potentially threatened	Site known, thought or inferred to contain **≥1%** of the global population AND/OR **≥5%** of the national population, OR the **5 "best sites"** for that species nationally, whichever is most appropriate
A(iv) Site contains one or more **range restricted endemic** species that are potentially threatened	Site known, thought or inferred to contain **≥1%** of the global population AND/OR **≥5%** of the national population, OR the **5 "best sites"** for that species nationally, whichever is most appropriate
(B) Botanical richness	
B(i) Site contains a **high number of species** within **defined habitat or vegetation types**	For each habitat or vegetation type: up to 10% of the national resource can be selected within the whole national IPA network OR the **5 "best sites"** nationally, whichever is the most appropriate
B(ii) Site contains an **exceptional number of species of high conservation importance**	Site known to contain **≥3%** of the selected national list of species of conservation importance OR the **15 richest sites** nationally, whichever is most appropriate
B(iii) Site contains an **exceptional number of socially, economically or culturally valuable species**	Site known to contain **≥3%** of the selected national list of socially, economically or culturally valuable species OR the **15 richest sites** nationally, whichever is most appropriate
(C) Threatened habitat	
C(i) Site contains **globally threatened or restricted** habitat/vegetation type	Site known, thought or inferred to contain **≥5%** of the national resource (area) of the threatened habitat type OR site is among the best quality examples required to collectively prioritise **20–60%** of the national resource OR the **5 "best sites"** for that habitat nationally, whichever is the most appropriate
C(ii) Site contains **regionally threatened or restricted** habitat/vegetation type	Site known, thought or inferred to contain **≥5%** of the national resource (area) of the threatened habitat type OR site is among the best quality examples required to collectively prioritise **20–60%** of the national resource OR the **5 "best sites"** for that habitat nationally, whichever is the most appropriate
C(iii) Site contains **nationally threatened or restricted** habitat/vegetation type, AND/OR habitats that have **severely declined in extent** nationally	Site known, thought or inferred to contain **≥10%** of the national resource (area) of the threatened habitat type OR site is among the best quality examples required to collectively prioritise up to **20%** of the national resource OR the **5 "best sites"** for that habitat nationally, whichever is most appropriate