PV NATURE

PROJECT IDEA NOTE

Pematang Gadung Community Peatland Conservation and Restoration Project

Pematang Gadung village forest, West Kalimantan, Indonesia

Version 1.3
1 September 2025

Developed by: ***Koperasi Mandiri Pematang Gadung Sejahtera***

Koperasi Mandiri Pematang Gadung Sejahtera (KMPGS) (Independent Pematang Gadung Cooperative for Prosperity) is a cooperative for the management of natural resources, forest restoration, and biodiversity monitoring in the Pematang Gadung village forest.

Table of Contents

Overview

Project Title:	**Pematang Gadung Community Peatland Conservation and Restoration Project**
Location:	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 palm oil. It is one of the last significant areas of coastal peatland left in the West Kalimantan Province. Local Melayu communities living 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 are resident populations of Bornean orangutan (*Pongo pygmaeus* - Critically Endangered), proboscis monkey (*Nasalis larvatus* – Endangered) and false gharial (*Tomistoma schlegelii* - Endangered) amongst many other 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 of village forest
Project Coordinator:	Koperasi Mandiri Pematang Gadung Sejahtera Address: Desa Pematang Gadung, Jalan Raya Pematang Gadung Kode Pos 78822. Kecamatan Matan Hilir Selatan, Kabupaten Ketapang, Kalimantan Barat. Email: koperasipmpgs@gmail.com
Project Participants:	During development and prior to certificate issuance, the project expects ~100 cooperative members / households to participate actively in project activities:

	a. Approximately 50 patrol staff will conduct patrols in high-risk areas for illegal activities b. Approximately 50 'forest restorers' (50% women) will collect wild seeds, germinate and plant native peatland species. c. A group of ~10 cooperative members will monitor biodiversity by conducting monthly transect-based surveys. d. Approximately 25 fire-prevention staff (all women) e. Local youth will have access to skills trainings and informal education. After certificate issuance and sale: The project aims to benefit ~600 households (~70% of all households [*n*=921] in Pematang Gadung village and all of those dependent on agriculture and mining).
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 – ~50 cooperative members will carry out patrols in high-risk areas (Protection) 3) Improved wildlife monitoring – ~10 cooperative members will monitor biodiversity trends (Protection) 4) Improved habitat resilience – ~50 cooperative members will replant native peat species over approximately 2,000 hectares (Restoration)
Expected Benefits:	Biodiversity benefits expected from this project: • 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. • Restoring 25% of the degraded peat in Pematang Gadung enhances ecosystem services for people and habitat quality for wildlife. 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.

	• Multi-dimensional wellbeing increases through education, skills trainings, employment opportunities benefit ~2,986 household members (with at least 50% of cooperative members being women). • Communities are freer to make choices about their future, enjoy higher levels of multi-dimensional wellbeing, are less dependent on extractive uses of natural resources and enjoy better health for themselves and their families.
Methodology Design:	The project focuses on restoration across ~2,000 hectares and conservation across ~5,004 hectares of the same landscape, therefore focusing on both conservation and restoration certificates. The project fulfils Criterion A1c of the Key Biodiversity Area Criteria.
PIN Version:	Version 1.3
Date Approved:	25 June 2025

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). While conversion to oil palm has slowed, fires are still a significant threat, and the demand for minerals has risen sharply, lowering 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), 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 1,842 villagers depend on agriculture and 11% 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 that of their families is 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.

1.1.1 Conservation Projects Justification*

The project fulfils criterion A1a and 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 orangutan 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 1 in Sungai Besar (SB) 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 (Acronaz *et al.* 2024), the population within legal Village Forest borders is estimated at between 0.27% and 0.4%, thus qualifying for KBA criterion A1c (Table 1).

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).

1.2 Project Interventions

Table 2 – Project Interventions

Intervention Type	Project Intervention	Expected Benefits
Protection	Fire risk mitigation through training cooperative members to carry out fire-prevention and fire-fighting activities	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. Early fire detection and management
Protection	1) Increased 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. The project plans to establish permanent patrol posts strategically positioned at the edge of mining areas. These posts will ensure the daily presence of the patrolling team and will halt the expansion of mining operations. In addition, reports to Forest Management Unit Authorities will be filed for each instance of illegal activities triggering local government involvement. In addition, forest monitoring will be strengthened through the integration of Global Forest Watch alerts, satellite imagery reviews via Google Earth,	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 governance, with increased female participation. Benefits from the Village Forest are equitably distributed and transparently managed. CO^2 emissions avoidance Prevent water pollution from worsening. Prevent the degradation of peatland from worsening. Prevent illegal hunting within the village forest area.

	spatial analysis through GIS platforms, and field verification using drones. 2. Create 'green jobs' directly tied to positive environmental outcomes and increases in multi-dimensional well-being.	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, with half of them being ring-fenced for women. Multi-dimensional well-being increased through skills training, and employment opportunities, benefiting at least 200 households, with at least 50% of direct participants being women or girls.
Restoration	Training community members in restoration techniques The replanting of approximately 2,000 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.	Increase in available habitat for wildlife. Increase resilience of the whole ecosystem and decrease risk of fires. Improvement in CO^2 sequestration. 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.

1.3 Project Boundaries

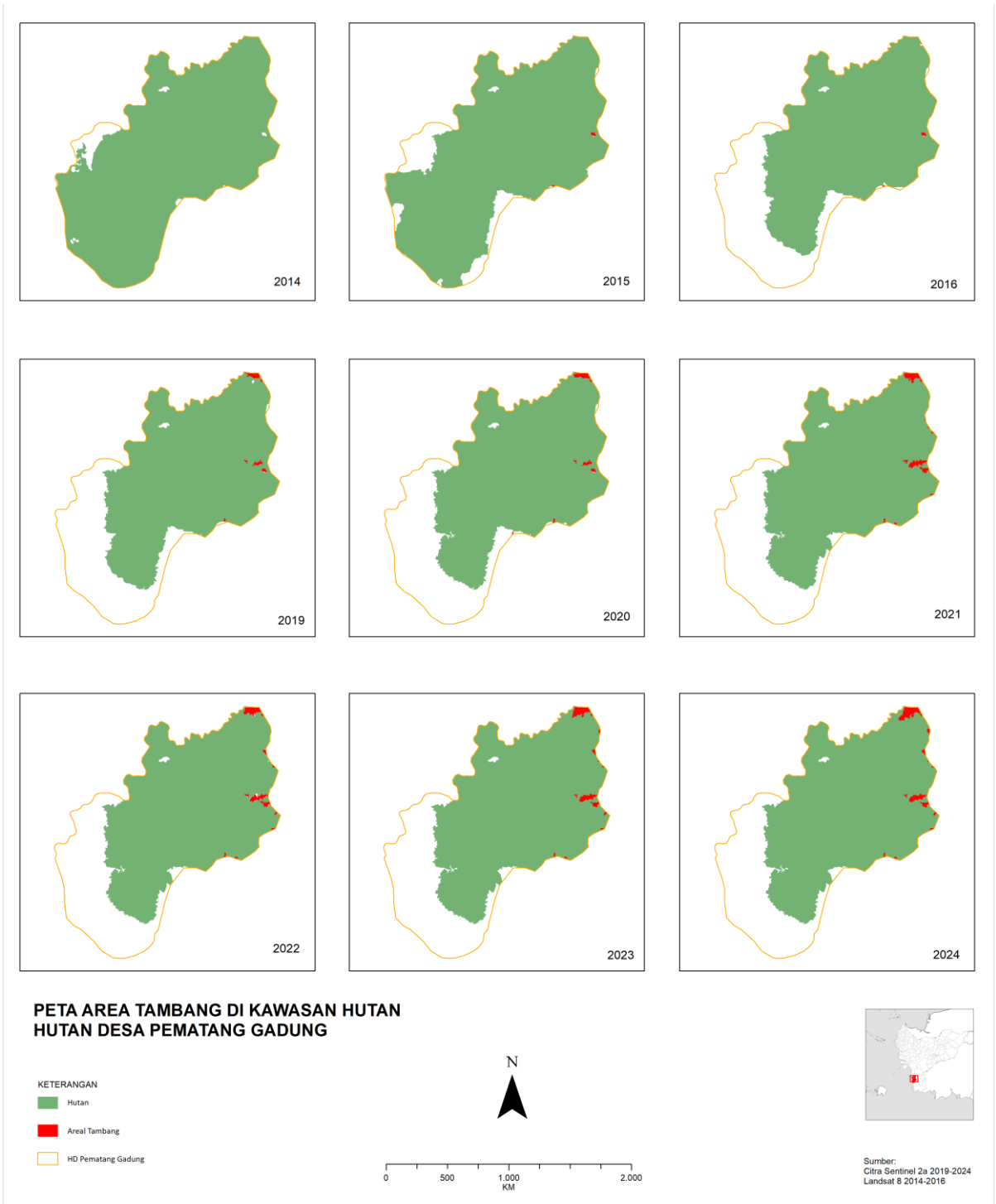


Figure 1: Forest loss in the PG Village Forest over a 10-year period (2014-2024) [Green – forest cover, Orange – PG forest boundary, Red- mining area]. Note the huge forest area lost to fires in 2015/2016.

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.

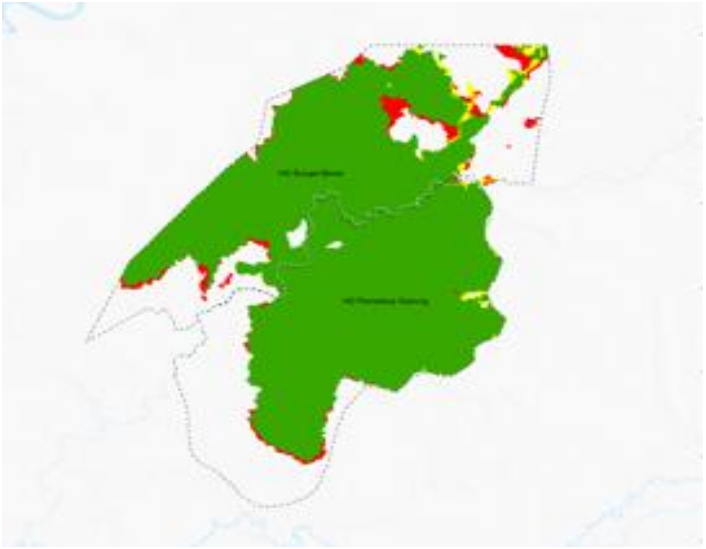


Figure 3: The Village Forest of SB – adjacent Village Forest to the north of PG.

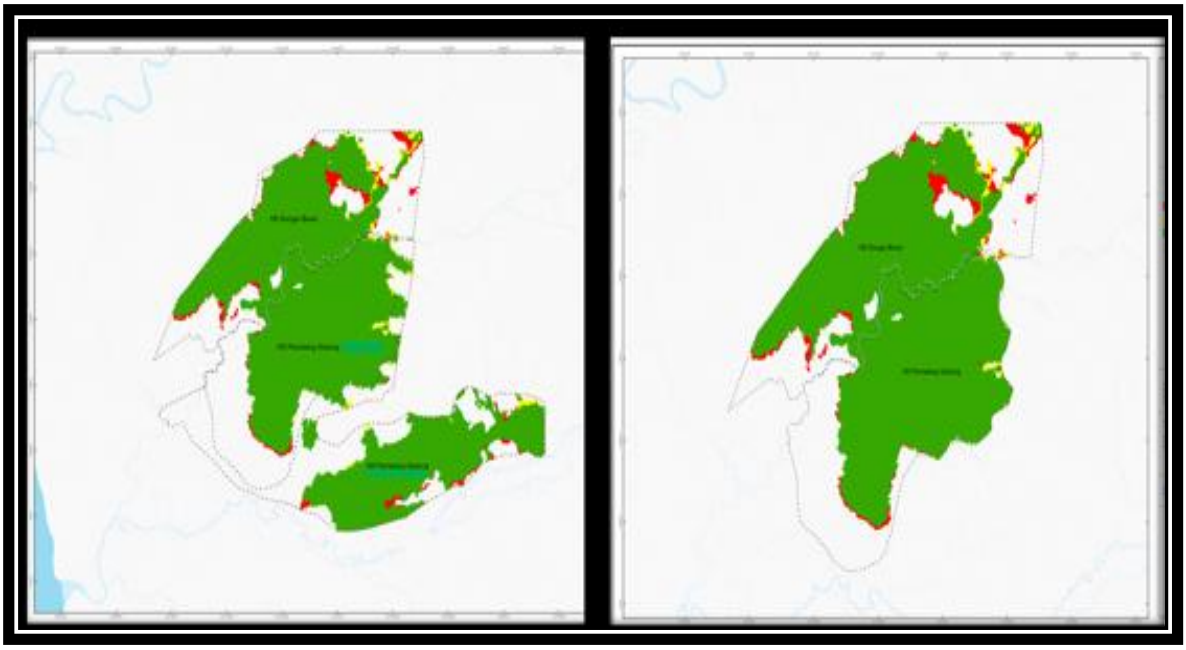


Figure 4: Forest loss in the PG-SB Village forest between 2019-2020 (Red) and 2020-2021 (Yellow). Map (left) depicts the entire PG Village forest before the new 2021 decree was issued, removing a large proportion of the PG Village forest (right).

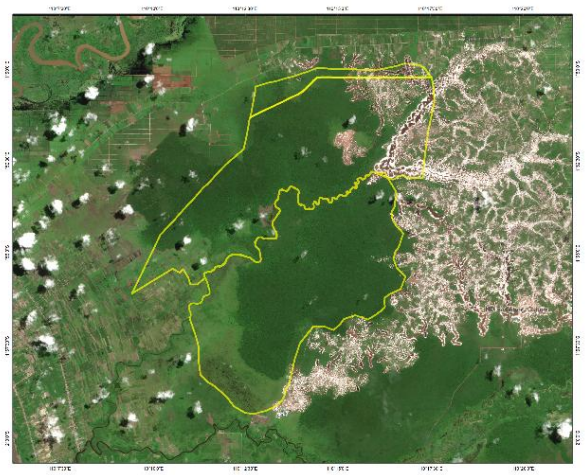


Figure 5: A recent satellite image of PG Village Forest (to the south), and SB (to the north), with the spread of illegal mining operations advancing to the east and south of both villages and noticeably affecting a large portion of the north-eastern part of SB Village Forest.

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 hectares
Protected Areas:	None

1.4 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'. The legal framework for HD is defined by GR No. 6/2007, with procedures and conditions for obtaining a 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 hectares - is under the same land management regime i.e. Village Forest license. Village Forest should be managed sustainably and cannot be converted or cleared; therefore, any kind of agricultural encroachment or mining activity is illegal. Up to 50 cubic metres of timber per year can be legally extracted by village members to fulfil construction needs. On the ground, the village receives no support and no resources to patrol and deter illegal activities.

2 Stakeholder Engagement

2.1 Stakeholder Identification

Primary Stakeholders:

The Primary Stakeholders that 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:

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 in 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 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 100-150 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. Efforts are ongoing to ensure work plans are complementary and mutually reinforcing. As of today, Tropenbos is no longer operating in PG.

Palm oil plantation: neighbouring palm oil 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 mitigation to reduce fire risk for the project area.

The Ministry of Environment and Forestry (MoEF): In Indonesia, all forest estates fall under the jurisdiction of the MoEF. The project will be implemented in accordance with all relevant MoEF regulations.

2.2 Project Coordination and Management

Koperasi Mandiri Pematang Gadung Sejahtera (KMPGS) (Independent Pematang Gadung Cooperative for Prosperity) is the project coordinator and was established in late 2024 for the purpose of managing this project. All cooperative members belong to Pematang Gadung village. KMPGS aims to substantially expand its membership going forward.

Lembaga Pengelolaan Hutan Desa (LPHD) / Village Forest Management Unit is a government-mandated unit which aims to manage the village forest sustainably. The LPHD in PG Village was established in 2015 and will support KMPGS with project coordination, particularly with patrolling responsibilities.

Yayasan Inisiasi Alam Rehabilitasi (YIARI) will have limited advisory functions during the development of the project. YIARI is an Indonesian NGO with over 17 years of experience supporting community-based environmental projects across a number of landscapes and eight in this one.

Table 4 Responsibility for Project Coordination and Management Functions

Project Coordination and Management Function	**Responsible Party/Parties**
Stakeholder engagement during project development and implementation	*Koperasi Mandiri Pematang Gadung Sejahtera* (KMPGS) (Independent Pematang Gadung Cooperative for Prosperity) and *Lembaga Pengelolaan Hutan Desa (LPHD* – Village Forest Management Unit). 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 receive the support of YIARI advisors who have 17+ years of experience engaging, facilitating and supporting stakeholders to co-create, co-develop and co-implement project activities, particularly with agro-ecological / regenerative agricultural techniques.

Ensuring conformance with the Plan Vivo Biodiversity Standard (PV Nature) and compliance with applicable policies, laws and regulations	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.
Developing technical specifications, land management plans and project agreements with project participants	KMPGS and LPHD Members of the cooperative and LPHD 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 the support from YIARI advisors with 10+ years of experience developing Plan Vivo and Verra (VCS/CCB) projects.
Registration and recording of land management plans, project agreements, and sales agreements	LPHD and KMPGS Members of the cooperative will receive the support from advisors with 10+ years of experience developing Plan Vivo with experience in 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 with all members 1-2 times per year.
Managing Plan Vivo Biodiversity Certificates in the Plan Vivo Registry	LPHD and KMPGS Members of the cooperative will receive the 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 the support from advisors with 10+ years of experience developing Plan Vivo and Verra (VCS/CCB) projects with specific experience of 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 the 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 who have 17+ years of experience dealing with complex regulatory permissions at the national, province 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, socioeconomic indicators and climate indicators and providing ongoing support to project participants	LPHD and KMPGS Members of the cooperative will receive the support from advisors with 10+ years of experience developing Plan Vivo and Verra (VCS/CCB) projects with specific experience

	of setting progress, socio-economic and climate indicators.
Measurement, reporting and verification of biodiversity benefits	LPHD and KMPGS Members of the cooperative will receive the 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

Project participants are all of the PG villagers resident in the PG Village area directly adjacent to the PG Village Forest. The project expects project participants to amount to approximately 1,800 adult women and men, or 921 households. The community is relatively homogenous, with 100% of villagers belonging to the Melayu ethnic group and 100% of villagers also being Muslim.

Most of the villagers in PG are smallholder farmers, with oil palm being the main crop cultivated. About 100-150 households are however, dependent on illegal mining, the main threat this project is addressing. Monthly earnings from mining activities are approximately 1.6-1.8 million IDR.

All project participants are residents within the administrative borders of PG Village. One hundred percent of the project area is managed by project participants. Parts of the PG Village Forest cannot be purchased or acquired by other communities or smallholders. Village Forest boundaries are decided upon by the government (based also on participatory maps submitted along with the license application).

Participants are Type I since they have legal rights to manage and use the project area as their Village Forest.

The cooperative structure and governance will ensure benefits reach all participants.

2.4 Participatory Design

As in most countries, gender inequalities remain pervasive, and special attention will be placed on ensuring 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 are also historically excluded from paid employment. 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.

As mentioned 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.

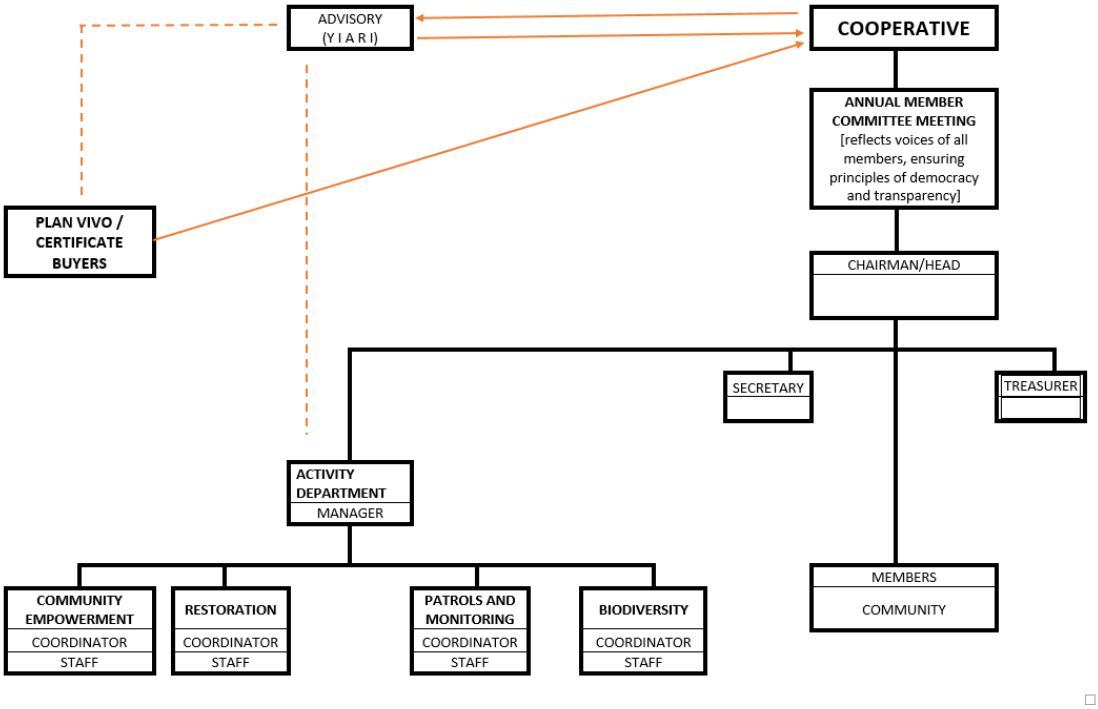


Figure 1: KMPGS Cooperative structure

The theory of change for the project is as follows:

IF local fire prevention efforts discourage the use of fire in agriculture and keep the frequency and extent of fires low;

IF 2,000ha of burned peat are restored;

IF through integrated monitoring systems 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.

2.5 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, open communication, and consultation to inform adaptive management and ensure meaningful benefits to participating communities throughout the duration of the project.

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.

3 Project Design

3.1 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 supports over 133 bird species, 59 mammal species, 11 amphibians and 36 reptiles. Despite selective logging, which took place at some point in the 90s, it is an outstanding biodiversity hotspot and is home to dozens of threatened species. Some areas of the peat have been drained due to additional logging, opening canals and other anthropogenic activities. Over eight drained forest areas were burnt for the first time in 2015 during the prolonged El Niño induced dry season and again in 2019.

In 2023, using six 4-km transects, 2,450 wildlife observations were recorded, documenting 145 species: 13 mammals, 101 birds, nine amphibians, and 22 reptiles. 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*.

In 2023, 20 camera traps accumulated a total of 1,026 documented observations, capturing 23 mammal species, three bird species, and one reptile species.

If the project were not to take place, mining activity on the northern and eastern sides of the village forest is expected to continue at a similar rate (Figs 1 and 2) and fires on the western side of the village forest to have similar impacts as in 2015/2016 and 2019/2020 when almost 1/3 of the forest was destroyed by uncontrolled fire use (Figs 1 and 2). The impact of mining and fires on the peat

ecosystem is devastating. Mining affects forest cover and freshwater negatively, with increased levels of sedimentation and pollution and direct impacts on local livelihoods through reduced fish and shellfish availability. Uncontrolled fires affect terrestrial flora and fauna instantly, with little to no opportunity for most species to migrate to other areas. With climate change, dry seasons are becoming longer, with the frequency of uncontrolled fires and associated impacts becoming more severe. Without this project, an acceleration in forest degradation rates and associated biodiversity losses is expected. Without project activities and associated fire prevention activities, air pollution would also significantly increase, affecting human health negatively (respiratory diseases, pregnancy loss) as well as education through school closures.

3.2 Socioeconomic Baseline

Approximately 55% of villagers are dependent on agriculture, approximately 11% are dependent on mining, 10% on trading, 5% provide transportation services, 2% work in construction and 17% in other sectors. The average miner's salary was reported to be 1,800,000 IDR per month. Poverty rates are ~8% (West Kalimantan provincial average, not specific to this community). The project expects that all mining-dependent households will shift to other livelihoods, with miners shifting to restoration, monitoring, and patrolling-based jobs over the short term and younger generations within the same households accessing additional education opportunities, lessening future dependency on natural resource extraction.

In the absence of project activities, an increasing number of households would likely become dependent on mining for a period of between 5-10 years (based on current rates of conversion and land availability). After this period, mineral reserves would likely be exhausted, and households would have to switch to other livelihood strategies. During this period, it is likely that skin and respiratory disease incidence would increase due to increased exposure to harmful chemicals and an increase in fire risk.

3.3 Environmental Baseline

Environmental conditions prior to the start of the project:

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 Nino. 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 estimation 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.

Ecosystem services to benefit from the project:

The conservation and restoration of this area will ensure a clean water supply, continued fishing opportunities, maintenance of clean air through fire risk mitigation and fire-fighting, reduced respiratory disease incidence, continued availability of Non-Timber Forest Products (NTFPs), and continued pollinator availability to support agricultural crops.

3.4 Project Logic

Table 2 Initial Project Logic

	Description	**Assumptions/Risks**
Outcomes – Intended overall project aim 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 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. The restoration of 2,000 ha of burnt peatland will result in a substantial increase in habitat for these and other species, increasing population viability.	Patrol and monitoring systems will effectively continue to detect and deter illegal activities, leading to a reduction in the rate of peatland loss. Engagement and cooperation from local communities, landowners, and stakeholders in the areas being patrolled are maintained. Local communities will continue to be actively involved in reporting and preventing illegal activities. 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 over 921 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.	Continued local engagement will be essential to the successful implementation of all activities. Job creation will offer a dignified alternative to mining and palm oil 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.

	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. Communities are free to make choices about their future and report higher levels of wellbeing, both monetary and non-monetary, are less dependent 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 25% of the 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. Through protection from mining, burning and other harmful activities, slowing of the subsidence rate, maintenance of the water table and restoration of already degraded peat through native species replanting, the project will avoid the emission of hundreds of thousands of tonnes of CO^2-e over the project lifetime.	Restoring 25% of the degraded peat in PG enhances ecosystem services for people and habitat quality for wildlife. 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. Saplings will continue to adapt well to their environment and a changing climate.
Outputs		

Output 1	Fire risk across 7,004 ha of coastal peatland is kept low, resulting in reduced forest loss rates (as compared to a 0.6% forest loss baseline).	Gradual 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.
Output 2	Improved local governance, particularly regarding illegal mining and burning activities.	Local corruption within the city of Ketapang, particularly with the illegal mining, poses a challenge. The combination of permanent post establishment with daily patrols and new attractive livelihood opportunities will mitigate this risk.
Output 3	At least 15% of PG households depend on regenerative livelihoods, resulting in better quality employment, improved multi-dimensional wellbeing and poverty reduction.	Communities remain supportive of conservation efforts and sustainable livelihoods strategies. 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 (HSSE). Remuneration for roles in the project will be competitive with respect to livelihoods based on extractive and unsafe practices (e.g. gold mining).
Output 4	2,000 ha degraded peatland are restored.	High seedling mortality rate due to increasingly longer drought seasons. This risk will be mitigated for by restricting planting times to the start of the wet season and by planting older seedlings, thus giving seedlings the best chance of survival possible.

3.5 Proposed Biodiversity Monitoring

Table 5 Prospective Biodiversity Monitoring

Selected Biodiversity Monitoring Tool	**Target Groups(s) the Biodiversity Monitoring Tool will target**	**Reason why this tool has been selected**	**Monitoring activities. Detail project specific considerations for monitoring this target group.**
Required Target Groups			
Tool 1 – Acoustic Monitoring	Birds	Fits data collecting requirements for tropics and taxonomic groups listed	Several groups of migratory birds occur here therefore monitoring will need to occur in the dry season.
Tool 2 – High Resolution Imagery	Plants (herbaceous and woody plants <2m in height)	Fits data collecting requirements for tropics, and taxonomic groups listed	Grasslands are regularly burned in the dry season therefore monitoring will need to be done in the short rainy season.
Additional Recommended Target Groups			
Tool 3 – Camera Trapping	Medium-sized mammals	Fits data collecting requirements for tropics and taxonomic groups listed	Most of the known EN and CR species occurring in this landscape are mammals and can be monitored through camera traps
Tool 4 – Acoustic Monitoring	Bats	Fits data collecting requirements for tropics and taxonomic groups listed	Monitoring should be carried out with seasonal fluctuations in temperature and rainfall in mind.

3.6 Additionality[1]

Table 6 Initial Barrier Analysis

Project Intervention	Main Barriers	Activities to Overcome Barriers
Fire-detection and fire-fighting (women-led) An existing fire-fighting group called the 'Power of Mama' will patrol in surrounding agricultural land (particularly to the west of the Village Forest) where fires are generally started. They use motorbikes and drones. This group will also train other civil society and private sector actors in the landscape to increase overall level of preparedness in the landscape.	Financial – although grant-based support has been secured over the past two years, this has been at times challenging and entirely dependent on YIARI's involvement and commitment to secure the necessary funds. The Project aims to provide the wider community with more agency and control.	Finance flows resulting from the sale of biodiversity certificates will enable continued support over the long-term.
SMART patrols Patrols will be conducted daily in high-risk areas (particularly on the northern right-hand border of the Village Forest). Posts will be established to ensure permanent field presence in these areas. Clear signage will be erected along the border of the Village Forest.	Financial – although grant-based support has been secured over the past eight years, this has been at times challenging and entirely dependent on YIARI's involvement and commitment to secure the necessary funds. The project aims to provide the community with more agency and control.	Finance flows resulting from the sale of biodiversity certificates will enable continued support over the long-term.
Peat restoration	Financial – although grant-based support has been secured over the past eight years, this has been at times challenging and entirely dependent on YIARI's involvement and commitment to secure the necessary funds. The project aims to provide	Finance flows resulting from the sale of biodiversity certificates will enable continued support over the long-term.

[1] See Baseline Scenario and Additionality Assessment Tool

	the community with more agency and control.	
Creating green/safer jobs – access to green/safer jobs (as compared to mining) for PG villagers.	Systemic / Economic - Access to safe/green jobs is limited by an existing economic system and model based on extraction. PG villagers have historically depended on agriculture, logging and more recently mining. Without a mechanism which values biodiversity in monetary terms, such as PV Nature certificate issuance and sale, opportunities will remain limited.	The project will result in the generation of PV Nature certificates and in finance flows which will be used to employ local PG villagers.
Local governance strengthening	Financial - Currently, as with most village forests in Indonesia, although a village forest management unit exists (LPHD), there are no resources or incentives to help it run. Although LPHD members have defined roles they do not receive a salary for fulfilling their roles. Furthermore, there is no operational budget associated with Village Forest status to help with the management of forest resources. Other (non-LPHD) villagers feel even less implicated in local resource governance, as time is taken up trying to make ends meet and in ensuring basic needs for their households are met. Consequently, external actors who come into the village forest (mainly to mine) meet very little resistance.	The project will result in finance flows that will directly address this barrier, with the cooperative working alongside LPHD ensuring people's time is adequately remunerated and that operational budgets are sufficient to run patrols well and on a regular basis. In addition, permanent posts will be funded to ensure a more permanent presence in high-risk areas.

Table 7 Threat Analysis

Major threat to biodiversity	Main Barriers	Activities to mitigate threat
Forest loss through mining	Mining is at present very profitable, and demand for metals is rising. Miners come from within and outside of PG Village.	Mitigating this threat will involve the cooperative taking a proactive role in supporting as many villagers as possible to become involved and benefit from project activities, including patrolling activities to deter the spread of illegal mining
Forest loss through fire	Although extensive use of fire in agriculture is illegal on peat, it is widely practised on agricultural land, leading to unintentional large-scale fires in adjacent forested areas. Fires on peat are especially difficult and time-consuming to extinguish. Dry seasons are likely to become longer as climate change progresses, further increasing fire risk.	By increasing the number of people involved in fire prevention, fire patrols and fire-fighting activities, the project will be able to respond quickly to any fires started around the project area. By restoring degraded peat, water tables will rise, increasing the overall resilience of this forest. By conducting targeted awareness raising efforts and supporting farmers to embrace practices that do not involve fire the threat is further mitigated.

3.7 Exclusion List

None of the activities listed in the Plan Vivo Exclusion List will be included in the project.

3.8 Environmental and Social Screening

Refer to Annex 4.

3.9 Stacking and Double Counting

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

3.10 Relevant Legislation and Policies

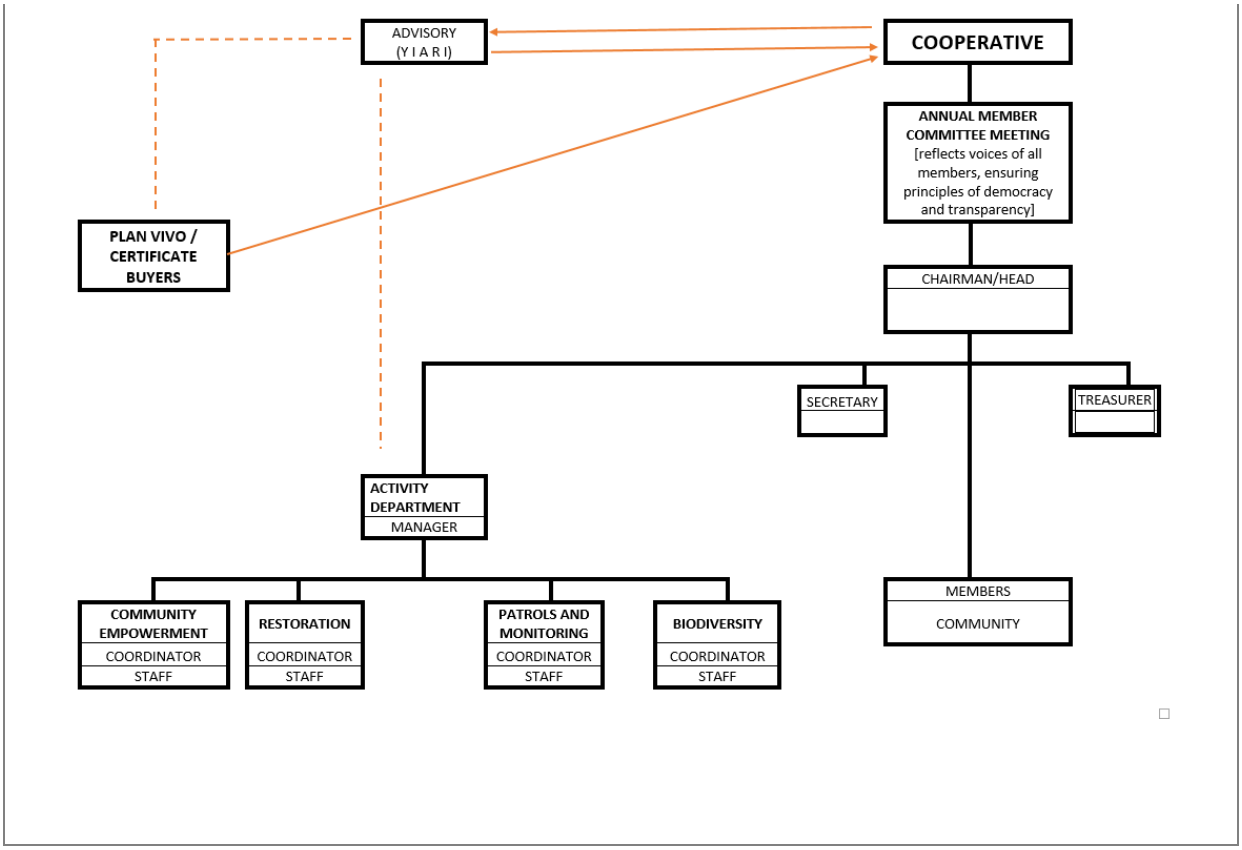
Table 9 National Level Legislation, Policies and Instruments

	Yes/No/Unsure	Details
Does the country receive or plan to receive results-based biodiversity or climate finance through bilateral or multilateral programs?	Yes	Norway makes payments to Indonesia for reducing deforestation and forest degradation. These payments are part of a climate agreement between the two countries. In 2024, Norway paid Indonesia $60 million for reducing deforestation and forest degradation between 2019 and 2020. In 2022, Norway paid Indonesia $56 million for reducing deforestation and forest degradation between 2016 and 2017. The payments are part of a climate agreement that aims to reduce emissions from deforestation and forest degradation. The goal is to make Indonesia's forests a carbon sink by 2030.
Are there any other relevant regulations, policies or instruments?	Yes	No. 98 of 2021 on the Implementation of Carbon Pricing (PR 98/2021) and Ministry of Environment and Forestry (MOEF) Regulation No. 21 of 2022 on the Guidelines for the Implementation of Carbon Pricing (MoEF 21/2022). Law No. 4 of 2023 on the Development and Strengthening of the Financial Sector (Law 4/2023), which governs, among others, the implementation of Indonesia's domestic carbon market.

4 Governance and Administration

4.1 Governance Structure

This project adopts an inclusive cooperative structure, ensuring 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.



4.2 Legal and Regulatory Compliance

All forest in Indonesia belongs to the State and are administered by the Ministry of Environment and Forestry (MoEF) and related provincial and district-level authorities. However, in the case of the *Hutan Desa*, all use and management rights are held by our community. Rights linked to ecosystem service payments, such as those for carbon sequestration or CO2 avoided emissions, for example, are also held by communities.

The project will operate in full compliance with all Indonesian and international policies, laws and regulations.

4.3 Financial Plan

The project will be financed through philanthropic funding and statutory grant finance during the development phase. Resources are not yet fully secured at the time of writing. Once certificates are issuable, grant finance will be phased out.

The benefit-sharing mechanism is yet to be discussed, finalised and voted on by the wider community. It is also dependent on the certificate price and volumes sold, however the following elements are likely to be relevant:

An estimated 50% will go into paying for the salaries of patrollers and fire-fighters, forest restorers and wildlife monitors.

An estimated 10% will go into paying for operational and maintenance expenses (fire-fighting equipment, wildlife monitoring equipment, etc.).

An estimated 25% 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 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.

5 Annexes

Annex 1 – Project Boundaries and Habitat Types

Provided separately

Annex 2 – Registration Certificate

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.

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 – 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.	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).	No
Trade in animals, plants or any natural products not complying with the provisions of the CITES/Washington convention [3].	No
Illegal, harvesting or trading in any wildlife resources.	No
Destructive fishing methods or drift net fishing with a net more than 2.5 km in length, explosives and/or poison.	No
Large-scale commercial logging operations for use in primary tropical moist forest.	No
Production or trade in wood or other forestry products other than from sustainably managed forests [4].	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]	No
Activities involving harmful or exploitative forms of forced labour, [6] harmful child labour [7], modern slavery and human trafficking [8].	No
Projects that include involuntary physical displacement and/or forced eviction.	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].	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	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).	No
Procurement and use of firearms.	No
Provision of finances to military institutions involved in conservation or security activities.	No
Production or trade of strong alcohol intended for human consumption or other alcoholic beverages (excluding beer and wine).	No
Production or trade of tobacco and other drugs	No
Gambling, gaming establishments, casinos or any equivalent enterprises and undertaking [13].	No
Any trade related to pornography, prostitution or sexual exploitation of any form.	No
Production or trade in radioactive material. This does not apply to the procurement of medical equipment, quality control equipment or other	No

application for which the radioactive source is insignificant and/or adequately shielded	
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%.	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.	No
Transboundary trade in wastes, except for those accepted by the Basel Convention and its underlying regulations [14].	No
Any activity leading to an irreversible modification or significant displacement of an element of culturally critical heritage [15].	No
Production and distribution, or investment in, media that are racist, antidemocratic or that advocate discrimination against a part of the population.	No
Projects involving the planting or introduction of invasive species	No
Projects that increase the dependency of primary participants and other stakeholders on fossil fuels.	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.

[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".

[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.

Annex 4 – Environmental and Social Screening

Guidance on use

Background

The questionnaire includes questions aligned with the Plan Vivo Biodiversity Standard (PV Nature) Environmental and Social Safeguards (Section 3.9, v1.0) and other Safeguard Provisions that are embedded in PV Nature (namely Stakeholder Engagement, Stakeholder Consultation, Free Prior and Informed Consent, Grievance Mechanism).

The questionnaire also draws from the Plan Vivo Environmental and Social Policy Framework (ESPF).

The questionnaire is structured around the IUCN ESMS Questionnaire, which itself is designed to be aligned with the IUCN ESMS (2016), and the World Bank Environmental and Social Framework (2017), including World Bank Standards 1-10.

The number of questions has been limited in this version of the questionnaire to ensure that it is practical and user-friendly.

The purpose of the questionnaire is to establish: 1) the project risk rating; 2) the significance of risks and impacts; 3) alignment with safeguard provisions; 4) the need for further E&S assessment during project design; 5) the likely safeguard plans that should be developed.

Due to the early stage in project design, the questionnaire is not designed to assess alignment with PV Nature requirements, but rather prompt projects as to what will be expected regarding those requirements that relate to E&S safeguards.

Any social and environmental risks must inform the design of the *Project*.

Requirement

As per PV Nature v1.0 every project must conduct a screening of environmental and social risks and impacts at the PIN stage of project design. The questionnaire and screening report are to be submitted alongside the PIN to the Plan Vivo Foundation.

Process for use of the E&S questionnaire

The Project Coordinator is to fill in the "Project coordinator response" section of the questionnaire. This is the column shaded light grey.

Once completed by the Project Coordinator, the Plan Vivo Foundation Project Officer and E&S reviewer is to fill in the "E&S reviewer comments" section of the questionnaire. This includes filling in the "E&S reviewer conclusions".

The screening report is then completed at the end by the Plan Vivo Foundation E&S reviewer, and the results are shared and discussed with the Project Coordinator.

Establishing significance of risks and impacts

Table 1 illustrates how risk significance can be established based on an estimate of likelihood of something happening, and the impact should it occur. This likelihood-magnitude matrix can be used by the Project Officer and the E&S reviewer to estimate the risk and impact significance of the E&S risk areas indicated in the E&S questionnaire **Section B**, below. Note that while the questionnaire focuses on key topics and issues that are common to natural resource management projects, the project coordinator should include other known E&S risks and impacts associated with the planned project.

Likelihood represents the possibility that a given risk event is expected to occur. The likelihood should be established using the following five ratings:

Very unlikely to occur (1)
Not expected to occur (2)
Likely – could occur (3)
Known to occur - almost certain (4)
Common occurrence (5)

Impact (or consequence) refers to the extent to which a risk event might negatively affect environmental or social receptors – see below criteria distinguishing five levels of impacts:

Severe (5)	Adverse impacts on people and/or environment of **very high magnitude**, including **very large scale** and/or spatial extent (large geographic area, large number of people, transboundary impacts), cumulative, **long-term (permanent and irreversible**); **receptors** are considered **highly sensitive**; examples are severe adverse impacts on areas with high biodiversity value; severe adverse impacts to lands, resources and territories of indigenous peoples; significant levels of displacement or resettlement with long-term consequences on peoples' livelihood; impacts give rise to severe and cumulative social conflicts with long-term consequences.
Major (4)	Adverse impacts on people and/or environment of **high magnitude**, including **large scale** and/or spatial extent (large geographic area, large number of people, transboundary impacts), of certain duration **but still reversible** if sufficient effort is provided for mitigation; receptors are considered sensitive; examples are adverse impacts on areas with high biodiversity value; adverse impacts to lands, resources and territories of indigenous peoples; significant levels of displacement or resettlement with temporary consequences on peoples' livelihood; impacts give rise to social conflicts which are expected to be of limited duration.
Medium (3)	Adverse impacts of **medium magnitude**, **limited in scale** (small area and low number of people affected), **limited in duration** (temporary), impacts are relatively predictable and can be avoided, managed and/or mitigated with known solutions and straight forward measures.
Minor (2)	Adverse impacts of **minor magnitude, very small scale** (e.g. very small affected area, very low number of people affected) and only short duration, may be easily avoided, managed, mitigated.

Negligible (1)	Negligible or no adverse impacts on communities, individuals, and/or on the environment.

Table 1: Rating significance of a risk area (Source: IUCN ESMS questionnaire, 2020)

		Likelihood of occurrence				
		Very unlikely to occur (1)	*Not expected to occur (2)*	*Likely – could occur (3)*	*Known to occur - almost certain (4)*	*Common occurrence (5)*
Magnitude	*Severe (5)*	Moderate	Substantial	High	High	High
	Major (4)	Low	Moderate	Substantial	Substantial	High
	Medium (3)	Low	Moderate	Moderate	Moderate	Substantial
	Minor (2)	Low	Low	Moderate	Moderate	Moderate
	Negligible (1)	Low	Low	Low	Low	Low

Establishing project risk category

The project risk category will be determined based on an understanding of the types of potential E&S risks and impacts associated with the project, and the availability of appropriate and known mitigation measures. Most Plan Vivo projects are thought to be of either low or moderate risk. If high risk projects are identified, the E&S impact assessment would look to understand the alternative project designs available to reduce the potential risks and impacts.

Table 2: Rating significance of a risk area (Source: IUCN ESMS questionnaire, 2020)

Risk Category	**Definition**
Low	Insignificant or low potential environmental and social risks and impacts have been identified. No additional management measures are required; no Environmental and Social Management Plan (ESMP) section of the PDD required.
Moderate	Moderate and/or substantial potential adverse risks and impacts have been identified, in one or more risk areas. These risks and impacts can be mitigated through known mitigation measures, such as a Stakeholder Engagement Plan, livelihood restoration plan, or through the project's ESMP.
High	High risks and impacts that are potentially diverse and irreversible, and for which standard solutions are not sufficient to manage, and for which specialist safeguard plans and expertise is required.

Alignment with safeguard provisions

Section C of the questionnaire refers to PV Nature safeguard provisions which are integrated into the Standard. These include:

- *Stakeholder engagement and consultation*
- *Free, Prior and Informed Consent*
- *Grievance Redress Mechanism*

The project coordinator will answer the questions related to these provisions, and clarify the project's intentions to meet these Standard requirements during the project design phase.

Environmental and Social Assessment

The E&S questionnaire should determine what E&S assessment is required during the project design phase (PDD development). For low and moderate risk projects, a tailored E&S assessment is required. For high-risk projects, an Environmental and Social Impact Assessment (ESIA) is required. The project coordinator should consider in responses what further assessment of risks and impacts is required, and the E&S reviewer will comment on this and include a summary in the Screening Report section.

Safeguard Plans

The E&S questionnaire should determine which Safeguard Plans are required by the project. For low risk projects, it is unlikely that an ESMP will be required. For moderate risk projects, and ESMP will be required. Projects will, according to the Standard, also require a mandatory Stakeholder Engagement Plan and a Grievance Redress Mechanism.

Some projects might require specialist plans, such as an Indigenous Peoples Plan (IPP) or a Livelihood Restoration Plan.

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 inhabited by 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.
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. Efforts will go into engaging with households most dependent on logging and unsustainable agriculture to ensure these households are able to earn equivalent incomes through lower-risk livelihoods (particularly from a health and safety perspective) while benefiting from additional non-monetary wellbeing increases arising from project activities.	*Thank you for your response, this is a suitable strategy. Please outline this strategy further in the PDD.*
	Is there a risk that the project discriminates against vulnerable groups, for example regarding access to project services or benefits and decision-making?	The 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 creation/exacerbation or perpetuation of gender-related inequalities?	No, the project does not consider this a risk given how well the women's fire prevention and fire-fighting group has been received.	*This is appropriate reasoning.*
	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 to be a risk given how well received the women's fire prevention and fire-fighting group has been, along with additional opportunities to 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.* *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. There are always risks involved in supporting livelihoods shifts, but the project is confident it can mitigate these risks by taking 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 linked to any project partners over the past 5 years.	*This is an appropriate response.*

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 customary rights which has been in use since 2008.	*All clear here*
	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 do that. However, the Project will conduct patrols, and illegal activities will be reported to government authorities if and when their involvement becomes 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 lead to health and safety risks. Cooperative members involved in monitoring, replanting and fire-fighting will receive the relevant	*Ok, understood. Please outline the relevant training for members in the PDD.*

		training which will include specific health and safety protocols. Project activities will not exacerbate human wildlife conflicts, they will on the contrary 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 (Indonesian labour organisation).	*This response is adequate, it will be interesting to see what this means in practice outlined in the PDD.*
	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 200 households dependent on mining. Cooperative members involved in monitoring, replanting and fire-fighting will receive the relevant	*Ok, understood. Please outline the relevant training for members in the PDD.*

		training which will include specific health and safety protocols.	
	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 200 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 their parents and are therefore exposed (as are their parents) to dangerous chemicals used in the extraction of gold.	*Ok, thanks for the additional information. Please outline mitigation measures to prevent the potential for harmful child labour at the PDD.*
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	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.*

GHG emissions	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 CO2 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.* *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 time and the project aims to keep this threat low.	*Ok, understood. Please outline the plans for the consultations with the community in the PDD.*

	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 livelihoods 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 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.	*Great to hear, it will be interesting to see this develop at PDD stage.*
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	No. Efforts will be made to engage each and every miner and each and every farmer to support	*This response is clear and justified cleared. It is evident that although a risk, the project is*

	their rights (including right to FPIC), their self-determination, or any other social or cultural impacts?	them in a variety of ways to shift from unsustainable livelihoods to sustainable ones. There are always risks involved in supporting livelihoods 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.	*mitigating for this eventuality. Please outline these efforts of 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 through its cooperative governance structure as inclusive and participatory as possible. All members of the community will be part of an ongoing consultation process to ensure benefits flow equitably and activities continue to address local needs.	*Thank you for providing this justification. It is evident that through the project's governance structure it is mitigating for this eventuality.*
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 palm oil plantations 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).	*Thanks, for this, this should considered in the project's leakage analysis at PDD stage.*
	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. Any instance of opportunistic hunting of protected species will be taken very seriously by the cooperative and penalised as per existing Village Forest regulations.	*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.*

		Ultimately, the project believes it will be able to offer substantial benefits which will far outweigh 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 (Hutan Desa) and is very well understood. As 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 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	*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 interesting to know at PDD stage if there is any risk of the restoration interventions potentially causing land use conflict.*

		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. 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.	*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.*
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	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	*Thank you for the response. This is something that will need to be*

for climate change		of additional efforts in fire detection and fire-fighting.	*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 tied to extended drought periods in the dry season increasing occurrence in floods	*Thank you for the information provided here, again further exploration into this at the PDD 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*			
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.*
	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 Village Forest Management Unit are very well understood and do not have any explicit way of encouraging the participation of women and other disadvantaged groups. The project's 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.	*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 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 its adjacent villages, but the mapping was completed	*Thank you for the response, this is now understood to be low risk.*

		successfully as part of the Village Forest application. No disputes over land in the project area are known to have occurred.	
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.	Still to be developed	*This is acceptable at this stage, and we look forward to seeing it progress at PDD stage.*
	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 formal consultation yet and there is no timeline yet.	*Understood, this will be expected to take place during the PDD stage.*

	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; Terita Deare***
Date of E&S screening:	***30/5/2025; approved 12/06/2025***
Project risk rating:	*Low risk due to a low risk rating accounted throughout the E&S assessment.*
Principle risks and impacts	*<Include summary of key project risks & impacts>*

E&S topic/ risk area	Likelihood (1-5)	Magnitude (1-5)	Significance (low, moderate, severe, high)
Vulnerable Groups	2	1	Low
Gender equality	1	1	Low
Human Rights	2	2	Low
Community, Health, Safety & Security	2	2	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 – eg. cumulative impacts	1	1	Low
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*

Appendix 1 – Criteria for Key Biodiversity Areas

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