

GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title

Conservation of globally significant biodiversity of the Ulu Jelai – Fraser’s Hill Watershed, Malaysia, through an Integrated Landscape Management approach

Region	GEF Project ID
Asia	12277
Country(ies)	Type of Project
Malaysia	FSP
GEF Agency(ies):	GEF Agency ID
UNDP	10347
Executing Partner	Executing Partner Type
Ministry of Natural Resources and Environmental Sustainability (NRES)	Government
GEF Focal Area (s)	Submission Date
Multi Focal Area	2/3/2026

Project Sector (CCM Only)

Taxonomy

Influencing models, Convene multi-stakeholder alliances, Strengthen institutional capacity and decision-making, Deploy innovative financial instruments, Demonstrate innovative approach, Stakeholders, Indigenous Peoples, Private Sector, SMEs, Individuals/Entrepreneurs, Financial intermediaries and market facilitators, Capital providers, Beneficiaries, Local Communities, Type of Engagement, Consultation, Information Dissemination, Partnership, Participation, Communications, Public Campaigns, Education, Behavior change, Awareness Raising, Civil Society, Community Based Organization, Non-Governmental Organization, Academia, Gender Equality, Gender Mainstreaming, Capacity, Knowledge and Research, Enabling Activities, Knowledge Exchange, Learning, Indicators to measure change, Theory of change, Adaptive management, Innovation, Knowledge Generation, Training, Workshop, Capacity Development, Gender-sensitive indicators, Sex-disaggregated indicators, Women groups, Gender results areas, Access to benefits and services, Access and control over natural resources, Knowledge Generation and Exchange, Participation and leadership, Focal Areas, Biodiversity, Protected Areas and Landscapes, Terrestrial Protected Areas, Community Based Natural Resource Mngt, Mainstreaming, Tourism, Forestry - Including HCVF and REDD+, Certification - National Standards, Agriculture and agrobiodiversity, Financial and Accounting, Payment for Ecosystem Services, Species, Illegal Wildlife Trade, Biomes, Tropical Rain Forests, Forest, Forest and Landscape Restoration

Type of Trust Fund	Project Duration (Months)
GET	60
GEF Project Grant: (a)	GEF Project Non-Grant: (b)
5,558,238.00	0.00
Agency Fee(s) Grant: (c)	Agency Fee(s) Non-Grant (d)
528,033.00	0.00

Total GEF Financing: (a+b+c+d)	Total Co-financing
6,086,271.00	42,220,000.00
PPG Amount: (e)	PPG Agency Fee(s): (f)
150,000.00	14,250.00
PPG total amount: (e+f)	Total GEF Resources: (a+b+c+d+e+f)
164,250.00	6,250,521.00

Project Tags

CBIT: No NGI: No SGP: No Innovation: No Competitive Window: No

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B “project description”. (max. 250 words, approximately 1/2 page)

The Ulu Jelai–Fraser’s Hill watershed in Pahang, Malaysia, is part of the Central Forest Spine, a globally significant montane ecosystem providing critical habitat for endangered species such as the Malayan tiger, Asian elephant, and hornbills. This landscape faces growing threats from forest fragmentation, poorly planned infrastructure, encroachment, and poaching, which undermine biodiversity, water security, and local livelihoods. Human–wildlife conflict, especially crop raiding and damage by elephants, has escalated as habitat corridors narrow. At the same time, Indigenous Peoples and Local Communities (IPLCs) living in the watershed experience limited livelihood options, and insufficient recognition of their stewardship roles. The project objective is to secure globally significant biodiversity and ensure sustainable development of the Ulu Jelai–Fraser’s Hill watershed through an Integrated Landscape Management (ILM).

To achieve this objective the project applies ILM strategy that knits conservation with development: (i) adopt a government-backed spatial plan that hardwires ecological corridors into state/district planning, supports Fraser’s Hill State Park gazettement, and recognizes IPLC-governed Conservation Areas, including its operationalization through a co-management scheme and revenue flows from Conservation Certificates (FCCs) project; (iii) restore forests and riparian buffers in wildlife corridors using assisted natural regeneration with targeted enrichment; (iv) prevent human–wildlife conflict via elephant-proof fencing, telemetry-based early warning, community response teams, and joint SMART patrols to suppress snaring/encroachment; (v) support IPLCs through green enterprises ; and (vi) drive best practice uptake through a targeted outreach campaign, a national Knowledge Hub, and robust FPIC, gender, GRM, and M&E systems.

By project completion, the Ulu Jelai–Fraser’s Hill watershed will have a legally adopted ILM Spatial Plan covering 250,000 ha, with at least 70,000 ha secured as Fraser’s Hill State Park and 25,000 ha under IPLC-governed OECMs. More than 7,500 ha of degraded forests and riparian corridors will be restored, wildlife movement safeguarded, and human–wildlife conflict incidents reduced by half through fencing, early warning, and community patrols. At least 20 community-led green enterprises will be operational, raising IPLC incomes by 25%. Overall the project is expected to directly benefit to at least 3,500 people (50% women). In addition, the project is expected to contribute to reducing/removing $\geq 2,133,993$ tCO₂e in greenhouse gas emissions over a 20-year period, through forest conservation and habitat restoration. Knowledge and lessons will be mainstreamed through a national Knowledge Hub and replicated in at least two other states, positioning the watershed as a model for biodiversity-friendly development in Malaysia.

Indicative Project Overview

Project Objective

To secure globally significant biodiversity and ensure sustainable development of Ulu Jelai – Fraser’s Hill watershed, Malaysia, through implementation of an Integrated Landscape Management approach that reduces land degradation and strengthens ecosystem resilience

Project Components

1. ILM Planning and Area-based Conservation of Biodiversity and Ecosystems

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
1,400,000.00	5,634,305.00

Outcome:

1. Extended PA and IPLC-governed Conservation Area coverage in Ulu Jelai – Fraser’s Hill watershed ensured by adopted ILM Spatial Plan, *as indicated by:*
 - >= 250,000 ha under sustainable management regime covered by Adopted ILM Spatial Plan for Ulu Jelai – Fraser’s Hill watershed
 - >= 70,000 ha of tropical forest ecosystems protected by established Fraser’s Hill State Park;
 - >= 25,000 ha of IPLC-managed Conservation Areas covering important wildlife habitat operationalized through revenue flows from FCC mechanism

Output:

- 1.1. Ulu Jelai – Fraser’s Hill ILM Spatial Plan integrating biodiversity conservation and development is produced and adopted by Pahang state and national governments;
- 1.2. Fraser’s Hill State Park is gazetted and operationalized by Pahang state government;
- 1.3. ILPC-based Forest Conservation Certificate (FCC) Project is developed, adopted by Pahang government, and implemented;
- 1.4. A network of IPLC-governed Conservation Areas (riparian & headwater protection zones, sacred/adat groves & cultural forests, and wildlife corridor & “no-snare” community zones) is established in Ulu Jelai – Fraser’s Hill watershed

2. Wildlife Habitat/Corridor Restoration, Human-Wildlife Conflict Management, and IPLC Empowerment via Green Enterprises

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
3,197,000.00	29,284,196.00

Outcome:

2. Increased connectivity of wildlife habitats, decreased human-wildlife conflicts and illegal activities, and increased nature-positive income and resilience of IPLC in Ulu Jelai – Fraser’s Hill watershed, as indicated by:
 - >=7,500 ha of selectively logged/degraded forest restored in wildlife corridors;
 - >=50% decrease in reported human–wildlife conflict (HWC) incidents in the project area;

- >= 60% decrease in snare encounter rate in the project area;
- >=50% decrease in encroachment incidents (illegal felling, farming, mining, new access) the project area
- >=2,133,993 tCO_{2e} GHG emissions reduced/removed over 20 years period
- >Stabilized local populations of Malayan tiger, Malayan tapir, and Asian elephant
- >= 20 community nature positive enterprises (>= 40% women-led) established and operational under stewardship MoUs
(riparian no-take, zero snaring, HWC-smart production);
- ≥600 IPLCs (50% women) trained (enterprise, food safety/HACCP basics, branding, digital sales, co-op governance);
- >=25% increase in nature-positive income for community members involved in the enterprises (50% are women);
- >= 3,500 direct project beneficiaries (50% women)

Output:

- 2.1. Key wildlife habitat and corridors are restored, demarcated and protected by IPLCs through Assisted Natural Regeneration and targeted planting;
- 2.2. IPLC-governed Human-Wildlife Management Initiative is launched, including elephant-proof electric fencing, telemetry-based early warning system, and community response groups;
- 2.3. Joint SMART patrols of PERHILITAN and community rangers are undertaken to suppress snaring and encroachment in wildlife corridors
- 2.4. Community nature-positive enterprises are established, trained, and connected to the market

3. Awareness and Knowledge Management

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
529,860.00	4,024,781.00

Outcome:

3. Lessons and best practices of the project are replicated in the project area and beyond, as indicated by:
 - ≥60% of surveyed stakeholders (50% of women) in the project area show improved knowledge/ attitudes toward biodiversity conservation and corridor-safe development
 - >= 2 Peninsular Malaysia states replicate ILM approach or some of its key elements

Output:

3.1. ILM outreach and awareness campaign for decision-makers, communities and private sector is delivered in the project area to enhance stakeholders understanding and positive attitude biodiversity conservation;

3.2. ILM Knowledge Hub is established at the National Biodiversity Center to collect and disseminate integrated biodiversity conservation and sustainable development practices in Malaysia

M&E

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
166,700.00	1,266,242.00

Outcome:

4. M&E, as indicated by:

- satisfactory rating of the project Quality Assurance supported by MTR and TE;

>=50% of local people in the project area are aware of Grievance Redress Mechanism

Output:

4.1. Participatory, inclusive, and gender-responsive M&E system is implemented to measure the project effectiveness, and support Adaptive Management

Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)
1. ILM Planning and Area-based Conservation of Biodiversity and Ecosystems	1,400,000.00	5,634,305.00
2. Wildlife Habitat/Corridor Restoration, Human-Wildlife Conflict Management, and IPLC Empowerment via Green Enterprises	3,197,000.00	29,284,196.00
3. Awareness and Knowledge Management	529,860.00	4,024,781.00
M&E	166,700.00	1,266,242.00
Subtotal	5,293,560.00	40,209,524.00
Project Management Cost	264,678.00	2,010,476.00

Total Project Cost (\$)

5,558,238.00

42,220,000.00

Please provide justification

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

Malaysia is internationally recognized as one of the world’s megadiverse countries, ranking around 12th globally in overall biodiversity richness^[1]. Its land area spans a range of key ecosystems, from some of the planet’s oldest tropical rainforests and extensive mangrove and peat swamp wetlands to high-altitude montane forests in the Titiwangsa Range and Bornean highlands which collectively harbor extraordinary species richness and endemism^[2]. Malaysia’s forests (such as those in Taman Negara) teem with iconic wildlife including the Malayan tapir (*Tapirus indicus*), Malayan tiger (*Panthera tigris jacksoni*), and sun bear (*Helarctos malayanus*), alongside innumerable smaller endemic species^[3]. Overall, the country supports an estimated 15,000 plant species and thousands of animal species (including ~300 mammals and ~740 birds) placing it among the top 17 megabiodiverse nations^[4]. Many of these species are threatened or unique to Malaysia; for example, the Malayan tiger (*Panthera tigris jacksoni*) is Critically Endangered and found only in Peninsular Malaysia, and Bornean orangutans (*Pongo pygmaeus*) and pygmy elephants (*Elephas maximus borneensis*) survive in Malaysian Borneo’s rainforests under ongoing conservation efforts^[5].

The Ulu Jelai–Fraser’s Hill landscape, nestled within Peninsular Malaysia’s Main Range (Central Forest Spine), is nationally and globally significant for biodiversity conservation. Fraser’s Hill alone harbors over 950 plant species, including 36 species endemic to Peninsular Malaysia^[6]. This montane forest complex is a sanctuary for endangered wildlife such as the Malayan tiger, Malayan tapir, siamang (a type of gibbon) (*Symphalangus syndactylus*), Asian elephant (*Elephas maximus*), and sun bear, which still roam these highland forests. Over 250 bird species (resident and migratory) have been recorded here, and BirdLife International has designated Fraser’s Hill as an Important Bird Area due to its rich avifauna^[7]. As part of Malaysia’s largest contiguous forest spine, this area forms a crucial link between major protected areas, serving as a wildlife corridor for large mammals and preserving genetic connectivity. Importantly, the Main Range forests are also the “water towers” of the peninsula, supplying clean water to downstream ecosystems and human communities^[8]. Indigenous Orang Asli communities living around these forests depend on its ecosystem services: from clean water to forest resources and have seen their livelihoods and well-being intertwined with the

health of the forest^[9]. Globally, Peninsular Malaysia's forests lie within the Sundaland Biodiversity Hotspot, making the Ulu Jelai–Fraser's Hill landscape part of a megadiverse ecosystem that is increasingly rare and valuable for conservation^[10]¹⁰.

Despite its biodiversity conservation and IPLC wellbeing importance, the Ulu Jelai–Fraser's Hill landscape faces mounting threats, including:

- **Deforestation and Habitat Fragmentation:** Past and current development (e.g., a golf course, roads) has led to forest clearance and fragmentation, endangering rare montane flora and fauna and interrupting wildlife corridors used by elephants, tigers, gaur, tapir, and arboreal fauna. Linear infrastructure like new highways cuts through the forest, isolating wildlife populations. Tourism infrastructure and hill-resort expansion risk encroaching on pristine areas. In the 1970s–2000s, unchecked construction caused water pollution and biodiversity loss, even affecting Orang Asli villages downstream. Surrounding forest reserves face pressure from logging concessions and proposed plantations. Additionally, illegal agriculture adds its share of habitat destruction. Thus, Pahang authorities have documented dozens of illegal durian cases in forest reserves since 2019, including felling ~15,000 Musang King trees over 101.17 ha in Batu Forest Reserve (Raub) in 2021^[11]¹¹. Such land-use changes in Pahang's forests have already destroyed key tiger and elephant habitats elsewhere, highlighting the risk if Ulu Jelai's forests are not protected. The Cameron Highlands headwaters, which border the wider Central Forest Spine highlands, are nationally known for tea plantations and intensive fruit and vegetable cultivation; continued expansion and farm upgrading pressure can translate into incremental encroachment into forest margins, especially where access roads and slope modifications enable small-scale clearing. Even where conversion is limited, agriculture contributes to forest degradation through edge effects, increased human access, and associated infrastructure (farm tracks, drainage works), reinforcing fragmentation and elevating risks to corridors critical for elephants, tigers, and tapirs. Additionally, localized mining has been reported within the broader Ulu Jelai–Fraser's Hill landscape, including within parts of the Ulu Jelai Forest Reserve system. Public reporting confirms at least one illegal mining site identified in March 2023 in Compartment 411 of the Ulu Jelai Forest Reserve (Lipis), associated with rare earth elements (REE) extraction^[12]¹². The current annual forest cover loss signal for districts overlapping the Ulu Jelai–Fraser's Hill landscape is on the order of ~0.3–0.7% of remaining natural forest per year, based on 2024 GFW snapshots (Bentong: ~0.33%; Pahang overall: ~0.63%)^[13]¹³.
- **Poaching and Illegal Collection:** Easy road access and a dense trail network make parts of the Ulu Jelai–Fraser's Hill landscape vulnerable to snaring and opportunistic hunting of large mammals (e.g., tiger, tapir, serow) and illegal collecting of high-value flora and invertebrates (notably wild orchids and insects for trade/collections). National enforcement data and recent investigations highlight the scale and sophistication of tiger poaching and trafficking networks operating in Peninsular Malaysia, with deep forest wire snare crises documented and multi-agency operations arresting >100 poachers in a single year; trafficking studies also show maritime smuggling routes are used to move tiger parts and other wildlife out of Malaysia. These pressures erode wildlife populations, remove keystone/flagship species from corridors, and deplete rare plant assemblages, undermining the ecological integrity that sustains both biodiversity and Orang Asli livelihoods^[14]¹⁴.
- **Human–wildlife conflict (HWC)** are major pressures in the Ulu Jelai–Fraser's Hill watershed and across Peninsular Malaysia due to fragmentation of wildlife habitat and interruption of migration corridors. Nationally, PERHILITAN recorded 6,853 Human-Elephant Conflict (HEC) cases (2015–2024), reflecting steady year-on-year growth; recent reporting also documents fatalities, injuries and more than RM2.34 million in elephant-related damages in just one state (Perak, 2019–2024)^[15]¹⁵. For Semai Orang Asli living along forest edges and road corridors, these trends translate into recurrent crop loss, safety risks, and reduced support for conservation, making HWC priority threats to address alongside connectivity and catchment protection.
- **Climate change** acts as a “threat multiplier” in the Ulu Jelai–Fraser's Hill system: warmer temperatures and shifting isotherms are already linked to community turnover and upslope displacement in Peninsular Malaysia's montane birds, including at Fraser's Hill, squeezing summit-restricted taxa and reducing corridor effectiveness if not maintained and

restored^[16]^[16]. Intensifying, erratic rainfall raises landslide and erosion risk in deforested areas of the Cameron Highlands headwaters, driving sediment pulses into the Bertam–Ringlet reservoir system that further degrade aquatic habitats and water quality for downstream users^[17]^[17]. By fragmenting suitable habitats into smaller “islands,” climate stress heightens the value of functional connectivity for wide-ranging fauna like Asian elephants; without it, wildlife movements are blocked and human–wildlife encounters can escalate as animals track shifting resources across farms and roads.

Given the Ulu Jelai–Fraser’s Hill landscape’s exceptional biodiversity and the interacting pressures outlined above, effective and long-term threat reduction for biodiversity and communities requires an integrated, landscape-scale approach that tackles habitat connectivity, people–wildlife coexistence, and sustainable economic development together. ILM approach integrating ecological connectivity, climate resilience, and community livelihoods through multi-stakeholder governance and spatial planning is a well-suited integrated solution for this unique area.

Future scenarios for Ulu Jelai–Fraser’s Hill landscape that can influence ILM framework effectiveness

Based on the analysis of situation in the Ulu Jelai–Fraser’s Hill landscape the following four simple future scenarios were considered for this GEF project^[18]^[18]:

Scenario 1: Resilient Green Growth (Probability: ~25%): Under this optimistic scenario, climate change impacts remain moderate—global efforts keep warming around 1.5 °C, avoiding the worst escalation of extreme weather^[19]^[19]. The highland ecosystem stays intact and resilient: forest cover remains above 50%, aligning with Malaysia’s pledge to maintain at least half of its land as forest^[20]^[20]. Effective governance and community stewardship drive this outcome. Authorities strictly enforce environmental laws, halting illegal logging and farming; for example, sustained crackdowns in Raub eradicate unlicensed durian plantations, reflecting a firm “*no one is above the law*” stance. Economic development continues in a sustainable manner: ecotourism and small-scale agriculture flourish within well-defined limits. No new large resorts or highways fragment the area; instead, investments focus on improving existing infrastructure and adaptation. As a result, biodiversity is preserved: iconic wildlife such as the Malayan tapir and sun bear still roam, and rare endemic plants like *Henckelia curtisii* continue to thrive in the cool uplands. By 2040, Ulu Jelai–Fraser’s Hill stands as a model of climate-resilient, green growth: the landscape retains its ecological integrity and provides steady benefits (clean water, tourism revenue, carbon storage) to local communities and the state.

Scenario 2: Unchecked Development Path (Probability: ~30%): In this scenario, economic expansion trumps environmental protection, and governance is too weak or profit-driven to enforce limits. Climate change effects are relatively mild in the 2020s and 2030s, a slight rise in temperature and periodic heavy rains, which fosters complacency. Spurred by high market demand (for instance, Malaysia’s durian exports surged over 250% from 2018–2022), land-clearing activities accelerate. Large swaths of forest are cleared or encroached upon for agriculture, plantations, and new infrastructure. In Raub District, illegal farms spread unabated into protected forests: by the 2030s, tens of thousands of hectares of state land (including nearly 6,000 ha of forest reserves) are taken over by unlicensed durian and oil palm cultivators. Law enforcement and local corruption allow such encroachment to continue largely unchecked. Commercial logging and new roads further fragment the fragile ecosystem, despite its known sensitivity to land-use changes. Urban-style development comes to Fraser’s Hill: old bungalows give way to high-rise hotels and resorts, built with minimal environmental assessment. Tourist arrivals initially grow with the expanded facilities, but the very natural beauty visitors seek is degraded. Rivers suffer from sediment and pollution, and the forests’ capacity to regulate water is diminished – an alarming prospect given these uplands are vital water catchments for Pahang. Wildlife populations plummet as habitats shrink. By 2040, the landscape is markedly transformed: economic gains have come at the expense of nature, with increased soil erosion and occasional landslides hinting at the longer-term costs of this unsustainable path.

Scenario 3: Adaptive Resilience under Climate Stress (Probability: ~25%): In this scenario, climate change hits hard: the 2030s bring notably harsher conditions, but strong governance and proactive adaptation measures help the region cope. By 2040, average temperatures have risen around 1.5–2 °C above late 20th century levels, and extreme weather events are more frequent. Intense monsoon downpours and storms periodically batter the Titiwangsa highlands. For example, torrential rains cause more frequent

flash floods and occasional landslides, echoing past events when dozens of slides struck Fraser's Hill in a single storm^[21]²¹. However, effective governance anticipates and mitigates these challenges. Recognizing Malaysia is *one of the most vulnerable countries* to climate impacts, authorities mainstream climate adaptation into regional planning. They enforce strict land-use controls preventing new deforestation and disallowing construction on geologically unstable slopes, and invest heavily in resilience. Forest conservation and reforestation programs expand, reinforcing natural buffers against floods. Local disaster preparedness improves: early warning systems, community drills, and emergency response teams greatly reduce casualties when extreme weather strikes. Infrastructure is upgraded for a changing climate: drainage is improved, roads are realigned or fortified where landslide risks are mapped to be high. Economic activities adjust as well. Farmers adopt climate-resilient practices to handle erratic rainfall, supported by government incentives. Tourism continues, but with a focus on ecological sustainability rather than mass resort development. Thanks to forward-looking governance, the Ulu Jelai–Fraser's Hill landscape in 2040 remains largely habitable and biodiverse, having weathered the climate onslaught with relatively well-maintained forests and infrastructure.

Scenario 4: Crisis of Climate and Governance (Probability: ~20%): This scenario depicts a perfect storm of severe climate impacts and governance failure, leading to an environmental and socio-economic crisis by the 2035–2040 horizon. Global emissions continue on a high trajectory, and by the late 2030s the region is grappling with extreme warmth and weather volatility. Heatwaves scorch even the highlands at times, and the monsoon brings rainfalls of unprecedented intensity. Disasters that were once rare become regular: massive floods and landslides ravage the area almost yearly. Poor planning and corruption exacerbate the situation: critical watershed forests that could have mitigated floods have been lost to illegal logging and farms, as enforcement largely collapsed. With forest cover dipping below the 50% mark, the ecosystem's tipping point is reached, landslides and erosion intensify because denuded slopes cannot hold the water. The Pahang River's headwaters, deprived of forest cover, run brown with silt; water supply becomes erratic and infrastructure is damaged, causing widespread water shortages for towns downstream. Biodiversity crashes: many wildlife species vanish from the area as habitats fragment and climate conditions shift faster than species can adapt. The local economy enters freefall. Tourism all but collapses. Agriculture suffers as well: flash floods and unpredictable seasons destroy crops, and what farmland exists often came at the cost of natural floodplains, worsening the cycle. With both climate and human systems failing, by 2040 Ulu Jelai–Fraser's Hill faces a grim reality: a once-lush landscape degraded into a patchwork of landslide scars, abandoned developments, and struggling communities.

ILM approach can not only survive the four scenarios, it pulls the system toward the resilient ones by aligning rules, incentives, information, and local stewardship. Robust spatial planning, PA network, ecosystem restoration, credible enforcement and HWC management, and green-economy incentives are the levers that work across all scenarios while measurably lowering the odds of the worst-case paths and increasing probability of optimistic futures.

The ILM approach catalyzes a **transformative paradigm shift** from fragmented, site-based conservation to an integrated, climate risk-informed landscape system that aligns ecology, economy, and governance across the Ulu Jelai–Fraser's Hill corridor. It replaces ad-hoc enforcement with co-management and transparent rules, hardwiring no-go zones, riparian and slope buffers, and wildlife corridors into statutory plans while operationalizing FPIC and community stewardship. It flips incentives from extraction to nature-positive growth through zero-deforestation market access, ecosystem restoration, sustainable livelihood, and compliance-linked finance for MSMEs and smallholders. It embeds adaptive management, so decisions adjust with climate and land-use signals in real time. It mainstreams equity by pairing legalization/restoration packages and livelihood transitions for smallholders with targeted support for women, youth, and Orang Asli enterprises.

Baseline Programs in Ulu Jelai–Fraser's Hill landscape for biodiversity conservation and sustainable development

In the last 10 years conservation stakeholders have intensified efforts to curb forest loss and reconnect habitats in the Ulu Jelai–Fraser's Hill landscape. The Malaysian government's Central Forest Spine (CFS) program identifies this area as a critical linkage in the Main Range and supports ecological corridors (via reforestation and wildlife overpasses) to restore connectivity^[22]²². In parallel, advocacy by WWF-Malaysia and local groups has prompted moves to upgrade the Fraser's Hill Forest Complex into a State Park for stronger protection^[23]²³. Enforcement of land-use regulations is also improving. Notably, when a 15-storey resort project in Fraser's Hill (an Environmentally Sensitive Area Rank 1) was approved without an EIA, public outcry (including ~15,000

petition signatures) led authorities to halt work pending environmental reviews^[24]^[24]. Surrounding forest reserves are being monitored for illegal clearance, for instance, satellite alerts in 2019 exposed logging activity in Ulu Jelai Forest Reserve at the Pahang-Kelantan border^[25]^[25], underscoring the need for vigilant forest management as part of the baseline initiatives.

In Peninsular Malaysia, most forests in the project landscape are Permanent Reserved Forests (PRFs) gazetted under the National Forestry Act 1984; PRFs are state lands that are legally classified into functional categories such as timber production forest, water catchment forest, soil protection forest, forest sanctuary for wildlife, amenity/recreation, and others. Many PRFs, especially those classified for production, can legally allow timber extraction and other permitted activities under a state licensing regime (i.e., forest produce removal requires a license/permit and is managed under state forest management planning). This means PRF designation provides an important legal framework for forest management but does not automatically equate to significant protected status across all reserves.

Over the past decade, Malaysia has ramped up anti-poaching programmes in this landscape as part of a nationwide response to wildlife trafficking. In 2019, a multi-agency crackdown Ops Bersepadu Khazanah was launched, uniting the Royal Police, PERHILITAN (Wildlife Department), and the army with NGO support^[26]^[26]. Within its first three months, this operation arrested 64 wildlife crime suspects (including local and foreign poachers) and removed 359 wire snares from the forests. Such joint enforcement has since continued annually, resulting in dozens of syndicates disrupted; authorities even invoked anti-money-laundering laws to freeze assets of poaching kingpins. Conservation NGOs are complementing these efforts with community-based patrols (including Orang Asli rangers) and transboundary intelligence-sharing to intercept traffickers. Recent research has illuminated the sophistication of the networks being tackled: for example, a 2025 Panthera study revealed that Vietnamese-led poaching rings in Peninsular Malaysia use debt-bonded migrants and covert maritime routes to smuggle tiger parts out via fishing vessels^[27]^[27]. In response, Malaysia's maritime agency (MMEA) has intensified coastal enforcement and since 2019 it has seized *thousands* of boats carrying illegal wildlife contraband, valued at over USD150 million. These combined interventions form the baseline framework to protect tigers, elephants, and other endangered fauna from snaring and illegal collection in the Ulu Jelai–Fraser's Hill region.

Human–wildlife conflict (HWC) mitigation has become a priority in the Ulu Jelai–Fraser's Hill area, given increasing encounters with elephants, tapirs, and other megafauna. As a baseline measure, the Wildlife Department (PERHILITAN) now operates rapid response and translocation teams; in Perak alone 41 elephants were relocated from conflict zones between 2020 and 2023^[28]^[28]. A federal compensation scheme (BKHT) has been funding partial reimbursements for farmers' losses since 2008, maintaining community goodwill toward conservation. More preventive solutions are also being piloted. Researchers at Universiti Teknologi PETRONAS developed a non-electric deterrent known as "ELEfence", a robust elephant barrier successfully tested at Kuala Gandah Sanctuary and slated for deployment along the new East Coast Rail Link in Pahang^[29]^[29]. This barrier aims to divert elephants from highways and rail lines, tackling the related issue of wildlife–vehicle collisions. In response to a high level of roadkills, infrastructure agencies and NGOs are improving road safety for wildlife. PERHILITAN and state authorities have built wildlife crossing structures at known hotspots (for example, viaducts on the Gerik–Jeli highway in northern Perak) and installed warning signage. WWF-Malaysia has urged more immediate steps like speed bumps and nighttime speed limits on trunk roads that cut through elephant and tiger ranges^[30]^[30]. Notably, the Perak state is establishing a dedicated Elephant Sanctuary (projected by 2029) to secure a safe habitat for displaced elephants and reduce conflict recurrence. Together, these initiatives form the baseline approach to ensure communities and wildlife can coexist more safely in this landscape.

Protecting the Ulu Jelai–Fraser's Hill ecosystem also requires tackling environmental threats from upstream agriculture and global climate change. Intensive vegetable farming in the Cameron Highlands headwaters (Bertam–Ringlet catchment) has led to chronic runoff of silt, fertilizers, and pesticides into rivers. As a remedial step, Tenaga Nasional Berhad (TNB) has spent over RM180 million in the past decade dredging sediment from Ringlet Reservoir, as the lake was found to be nearly two-thirds filled with silt and

debris[31]³¹. Enforcement agencies and local authorities periodically launch operations to shut down illegal farms on steep slopes; for example, raids in 2020–2024 targeted encroachment in forest reserves feeding the Bertam River (part of an ongoing highlands rehabilitation plan). Despite these efforts, water quality indicators remain a concern. The Department of Environment reports that 8 out of 10 rivers in Cameron Highlands are now classified as *polluted* (Class III), a stark drop from their clean status in the 1990s[32]³². Scientific surveys have detected agrochemicals beyond safe limits: a 2023 study found that 40% of farms overused pesticides, pushing toxin levels in some rivers to 300% above national safety standards[33]³³. This degradation threatens both aquatic biodiversity and downstream Orang Asli communities' water supply. To address these intertwined challenges, current plans emphasize ecosystem-based adaptation. This includes reforestation of critical catchments, adopting sustainable farming practices (e.g. terracing, organic methods) to reduce erosion, and strengthening wildlife corridors to allow species to move in response to shifting climates. These baseline initiatives aim to safeguard both the biodiversity and the natural services (clean water, climate regulation) that the Ulu Jelai–Fraser's Hill landscape provides.

Barriers for effective implementation of the ILM approach

Despite the commendable progress, Ulu Jelai–Fraser's Hill landscape faces a number of challenges and gaps in conservation and sustainable development efforts. These include different issues that will need continued attention and described below as **Barriers**:

Barrier 1: *Fragmented land-use planning and gaps in area-based conservation governance (including limited IPLC-recognized conserved areas).* Over the past decade, conservation efforts in the Ulu Jelai–Fraser's Hill watershed have been hampered by fragmented land-use planning and gaps in area-based protection. Important forests remain outside fully gazetted protected areas, leaving them open to incompatible development. For instance, Fraser's Hill is recognized as an Environmentally Sensitive Area (ESA) Rank 1 (where only low-impact eco-tourism and research should occur)[34]³⁴, yet a 15-storey resort project was approved there without even requiring an environmental impact assessment. This highlights serious governance and planning gaps at the state level. Likewise, the broader Fraser's Hill Forest Complex (~70,000 ha of biodiverse montane forest) is currently covered only by a patchwork of forest reserves; poaching and encroachment detected in these forests underscore the need to formally gazette the area as a State Park for stronger protection[35]³⁵. Baseline programmes in the past 10 years did not establish such an integrated landscape plan or complete the protected area network, creating a barrier to effective conservation.

Additionally, there are no *formally recognized* Orang Asli–governed protected areas (e.g., sacred/adat groves, customary forest zones) in the Ulu Jelai–Fraser's Hill landscape. WWF-Malaysia's work in the Fraser's Hill Forest Complex documents Semai and Chewong communities around Batu Talam Forest Reserve and highlights uncertainty over their legal rights and tenure consistent with a lack of recognized community PA instruments in this landscape[36]³⁶. Localized community stewardship and advocacy are present (e.g., Semai of Pos Lanai in Hulu Jelai resisting dams/mining/logging), but these efforts have not been converted into legally recognized, mapped conservation areas yet. Peninsular Malaysia's legal framework offers very limited recognition of Orang Asli customary land. Analyses concur that Orang Asli rights are scarcely provided for in land/forestry/conservation statutes; the Aboriginal Peoples Act 1954 (APA) allows state-gazetted "Aboriginal Reserves," but confers weak, revocable tenure and no clear pathway for community-governed protected areas or co-management within Permanent Reserved Forests[37]³⁷. This leaves most Orang Asli communities on state land as "tenants-at-will," undermining permanence and governance authority needed for OECM/PA designation. Operationally, communities lack sustained funding, technical capacity, and an administrative "slot" to formalize rules (no-snare zones, riparian buffers) inside forest reserves; FPIC practice is inconsistent, and benefit-sharing frameworks are ad hoc, which weakens incentives to maintain community conservation over time[38]³⁸. On financing, Malaysia's Forest Conservation

Certificate (FCC) now provides a national vehicle to fund conservation, but project *proponents* must be eligible entities with state sanction or land control; Orang Asli groups without title therefore cannot directly sponsor FCC projects at this time.

In Malaysia, workable partnership mechanisms involving local communities in area-based conservation already exist, however, they have never been applied in Ulu Jelai–Fraser’s Hill: a state-led proponent + community MoU model (used in Royal Belum–Temengor where Orang Asli ranger units like *Menraq* patrol and co-manage with the State Park/NGOs); statutorily backed community co-management (Sabah’s *Tagal* river system, where communities enforce no-take/rotation rules recognized in state fisheries law); and landscape-scale state–NGO agreements (e.g., Sabah’s DaMal Initiative) that formalize joint patrolling, restoration, and monitoring across corridors. All three rely on clear FPIC-based agreements, defined roles (patrols, restoration, HWC response, monitoring), benefit-sharing tied to verified outcomes, and integration with government enforcement (PERHILITAN/forestry departments). For FCC, the same architecture applies: a state agency (or park authority) acts as proponent, while community groups are implementation partners via MoUs that codify governance rules (no-snare/riparian buffers), MRV contributions (SMART, biodiversity monitoring), and revenue flows making community-managed conservation areas operational now.

Barrier 2: Degraded habitat corridor connectivity, persistent human–wildlife conflict, and weak deterrence against illegal activities. The continued degradation of wildlife corridors and insufficient on-ground enforcement have led to rising HWC and wildlife poaching. The Ulu Jelai–Fraser’s Hill landscape is part of Peninsular Malaysia’s Central Forest Spine, but connectivity between protected areas remains tenuous. For example, the Sungai Yu corridor meant to link the Taman Negara park with the Titiwangsa range forests has only partly been secured; volunteers patrolling this corridor regularly dismantle snares and report illegal logging, indicating ongoing encroachment and poaching in what should be a safe linkage^[39]³⁹. Many forest patches in the area were selectively logged or cleared for plantations in the past decade, creating degraded buffer zones where elephants and other wildlife roam into human settlements. This fragmentation has fueled intense HWC: elephants frequently raid crops in fringe villages, causing significant losses. Such conflicts have provoked retaliation, contributing to wildlife deaths: 116 elephant fatalities were recorded in 2015–2021, 43% due to illegal killings (poaching or poisoning)^[40]⁴⁰. At the same time, inadequate patrolling and law enforcement allowed a snaring crisis to unfold in these forests. Poaching syndicates set hundreds of wire snares that decimated endangered wildlife; the critically endangered Malayan tiger population has plunged to fewer than 200 individuals nationwide, with snare-trapping by poachers identified as a leading cause of decline^[41]⁴¹. Degraded Forest Reserve edges and privately held gaps that sever linkages (e.g., Sungai Yu) have only been *partially* secured, with much of the deterrence and maintenance falling to volunteers rather than a funded, state-led corridor restoration program. There is little proof of systematic Assisted Natural Regeneration (ANR) and native planting at scale in conflict hotspots to rebuild functional buffers; the persistence of conflict suggests restoration has been too small and too scattered to change outcomes. Conflict responses still lean on *after-the-fact* translocations and ad-hoc barriers, with limited deployment of integrated deterrent systems (e.g., telemetry-based alerts + engineered fences) across known elephant pathways. In sum, baseline initiatives of the last decade suffered from operational limitations, limited restoration of logged forests, insufficient conflict mitigation, and not enough community-backed patrols, resulting in continued habitat loss and biodiversity threats.

Barrier 3: Limited Sustainable Livelihood Options to Support Conservation Stewardship. A third barrier is the lack of sufficient community support and livelihood incentives in baseline conservation programs. IPLCs in the watershed, including Orang Asli villages, have historically seen few tangible benefits from conservation, which undermines their engagement. Socio-economic indicators show these communities remain deeply underserved: virtually *all* Orang Asli households (99.3%) fall into Malaysia’s bottom income bracket^[42]⁴², reflecting high poverty rates that have persisted through the past decade. This poverty is rooted in systemic issues like loss of customary lands and marginalization from mainstream economic opportunities. In remote forest settlements, livelihood choices are often limited to small-scale farming or foraging, and without alternatives, some households resort to unsustainable activities (e.g., illegal hunting or logging) to make ends meet. Past programs have not sufficiently built the capacity or market linkages for nature-based enterprises that could both improve incomes and incentivize conservation. Women, in particular, have faced barriers to participating in formal enterprises or leadership roles due to cultural and financial constraints. These governance and operational gaps, including insufficient support for sustainable livelihoods, and a failure to provide services that enable sustainable business endeavors have meant that conservation goals were not integrated with community well-being in the baseline scenario.

Key strategies to remove the Barriers for biodiversity conservation and sustainable development of Ulu Jelai–Fraser’s Hill watershed

To effectively address the barriers identified above, the following key strategies should be implemented:

- **Landscape planning & legal protection:** Develop integrated spatial plan as a matrix for sustainable development, upgrade the Fraser’s Hill Forest Complex to a State Park, designate IPLC-governed Conservation Areas in key wildlife habitat and migration corridors and introduce partnership-based models for their management.
- **Wildlife habitat and corridor restoration at scale:** Close habitat connectivity gaps with ANR and native enrichment restoration practices on edges/riparian zones and organize their protection by IPLCs;
- **Human–wildlife coexistence:** deploy early warning system, community deterrent buffers (e.g., ELEFence/solar fencing), crop switching, rapid response teams for proactive management of HWCs;
- **Snare-free landscape & smart enforcement:** Scale SMART patrols with Orang Asli rangers, quarterly snare sweeps, drones/cams and Global Forest Watch (GFW) alerts, and tighten prosecutions of wildlife crime;
- **Community support & nature-positive livelihoods:** Support nature-positive community enterprises, including sustainable farming and ecotourism, and FPIC-based Community Stewardship Agreements in biodiversity hotspots, enabled by business support.

Key Stakeholders for Implementation of the strategies

The strategies above require coordinated multi-stakeholder approach, including a tight federal–state–community coalition: NRES, Federal Department of Town and Country Planning, Peninsular Malaysia (PLANMalaysia), Department of Wildlife and National Parks, Peninsular Malaysia (PERHILITAN), Forestry Department of Peninsular Malaysia (JPSM), Department of Environment (DOE), Department of Irrigation and Drainage (DID), Public Works Department / Malaysian Highway Authority (JKR/LLM), Ministry of Tourism, Arts and Culture (MOTAC), Ministry of Agriculture and Food Security / Department of Agriculture (MAFS/DOA) and Department of Orang Asli Development (JAKOA) to provide policy, planning, HWC, restoration standards and compliance; Pahang State (UPEN), State Forestry and the future State Park Authority to lead gazettals, corridor securing, district plan updates and daily operations with PERHILITAN Pahang and district councils; Semai and Chewong village committees, women/youth groups and JAKOA field offices to co-govern IPLC Conservation Areas through FPIC-based Community Stewardship Agreements, patrols, and restoration; Forest Research Institute Malaysia (FRIM), Malaysian universities and NGOs (WWF-Malaysia, MNS, TRAFFIC, Panthera) to supply baselines, SMART/GFW analytics, road ecology and coexistence know-how; private actors, including TNB, tourism operators, farm groups, water utilities FCC developer to co-finance PES, catchment restoration and nature-positive markets; enforcement is driven by PERHILITAN, State Forestry, Police, and the courts in collaboration with IPLC patrolling. See details in the section

[1] [cbd.int](#)

[2] [gaiacompany.io](#)

[3] [gaiacompany.io](#)

[4] [cbd.int](#)

[5] [gaiacompany.io](#)

[6] [en.wikipedia.org](#)

[7] [en.wikipedia.org](#)

[8] [oneearth.org](#)

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[10] [oneearth.org](#); [sciencedirect.com](#)

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[12] <https://www.malaymail.com/news/malaysia/2024/03/14/nik-nazmi-natural-resources-ministry-to-continue-working-with-state-govts-to-curb-illegal-mining-activities/123378>

[13] [Global Forest Watch](#)

[14] https://wwf.org.au/blogs/tigers-snares-and-malaysias-indigenous-guardians-of-the-forest/?utm_source

[15] https://www.utp.edu.my/Pages/The-University/Publications/UTP-Impact/Engineering-an-answer-for-human-elephant-conflict.aspx?utm_source

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[17] [ResearchGate+1](#)

[18] Scientific and Technical Advisory Panel to the Global Environment Facility (2023). *Simple Future Narratives: Helping to Ensure the Durability of GEF Investments*. STAP Brief, June 2023. Available at: <https://stapgef.org/resources/advisory-documents/simple-future-narratives-brief-and-primer>.

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[38] wwf.org.my

[39] cbd.int

[40] malaysiakini.com

[41] news.mongabay.com

[42] macaranga.org

B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

Project Theory of Change

Based on the situation analysis and set of potential strategies provided in the Project Rationale section above, the following GEF project is being proposed to address the three Barriers for long-term biodiversity conservation and sustainable development of the Ulu Jelai–Fraser's Hill watershed in Pahang state (the project **Theory of Change** is depicted on the Fig. 1 and described below):

The **Project Objective** is: *To secure globally significant biodiversity and ensure sustainable development of Ulu Jelai – Fraser's Hill watershed, Malaysia, through implementation of an Integrated Landscape Management approach that reduces land degradation and strengthens ecosystem resilience*

ILM as an integrated landscape management model built on three pillars: **Protect, Produce, Restore** that combines protecting forests, wildlife and rivers with sustainable production (e.g., RSPO-certified palm oil) and the restoration of ecological corridors and wildlife habitat^{[1]⁴³}. The pillars are the following:

- **Protect:** Conserve remaining forests, wildlife, rivers and watersheds through legal protection and land-use planning within priority landscapes;
- **Produce:** Support sustainable production, including sustainable farming, forestry, and other nature-positive livelihoods so commodity supply chains meet environmental and social standards while reducing deforestation and other threats for biodiversity;
- **Restore:** Rehabilitate degraded habitats by restoring ecological corridors and wildlife habitat to reconnect ecosystems and recover biodiversity and ecosystem services.

Thus, the Project Objective is expected to be achieved through implementation of the ILM approach and four project Strategies (**Components**), designed to remove the **Barriers 1-3** and achieve the project **Outcomes** (systematic and transformative changes). The strategies have been suggested based on the lessons learned from other GEF and non-GEF projects related to ILM applications in Malaysia and other countries (see the section *Lessons Learned from Previous ILM Initiatives* below) to ensure their effectiveness. The suggested strategies (components) are based on the **GEF8 Levers** and will work in synergy with each other to establish fully operational ILM operational framework for the Ulu Jelai–Fraser's Hill watershed in Pahang state:

- **Component 1.** *ILM Planning and Area-based Conservation of Biodiversity and Ecosystems*
- **Component 2.** *Wildlife Habitat/Corridor Restoration, Human-Wildlife Conflict Management, and IPLC Support via Green Enterprises;*
- **Component 3.** *Awareness and Knowledge Management*

Implementation of the project Components will be accompanied by participatory and gender-responsive **Monitoring and Evaluation framework** to track project effectiveness, and support project adaptive management.

Thus, **Component 1** is designed to remove **Barrier 1: Fragmented land-use planning and gaps in area-based conservation governance (including limited IPLC-recognized conserved areas)** and achieve the **Outcome 1: Extended PA and IPLC-governed Conservation Area coverage in Ulu Jelai – Fraser’s Hill watershed ensured by adopted ILM Spatial Plan**. Outcome 1 is expected to be achieved through delivery of four project **Outputs** (direct project products and services):

- **Output 1.1.** Ulu Jelai – Fraser’s Hill ILM Spatial Plan integrating biodiversity conservation and development is produced and adopted by Pahang state and national governments;
- **Output 1.2.** Fraser’s Hill State Park is gazetted and operationalized by Pahang state government;
- **Output 1.3.** ILPC-based Forest Conservation Certificate (FCC) Project is developed, adopted by Pahang government, and implemented;
- **Output 1.4.** A network of IPLC-governed Conservation Areas (riparian & headwater protection zones, sacred/adat groves & cultural forests, and wildlife corridor & “no-snare” community zones) are established in Ulu Jelai – Fraser’s Hill watershed

IF the Ulu Jelai–Fraser’s Hill ILM Spatial Plan is adopted, the Fraser’s Hill State Park is gazetted and made operational, an IPLC-based FCC project is approved to finance long-term management, and a network of IPLC-governed Conservation Areas is formally established, **THEN** protected area coverage and legally recognized IPLC conservation across the watershed will expand and be sustainably managed under a single, enforceable ILM framework. Thus, Component 1 will establish an enabling and enforceable spatial framework for the Ulu Jelai–Fraser’s Hill watershed and introduce a network of protected areas as the key elements for sustainable development. Achievement of the Outcome 1 is based on the following **assumptions**: (a) sustained Pahang/National political will and no adverse policy reversal during gazettal and spatial plan adoption; (b) FPIC is secured and IPLC institutions have capacity and incentives to manage designated areas in collaboration with government agencies; (c) inter-agency coordination (planning, forestry, PAs) and legal processes proceed without material delays. Component 1 will leverage the **GEF Lever 1 – Governance and Policy, GEF Lever 2 – Financial Leverage, GEF Lever 3 – Multi-Stakeholder Dialog** aiming to hardwire conservation into statutory spatial planning and enforcement, secure legal designations IPLC-managed Conservation Areas, unlock blended finance (FCC) for sustainable management, and institutionalize FPIC-based IPLC co-management.

Component 2 will be implemented in strong synergy with the Component 1 and is expected to remove the **Barrier 2: Degraded habitat corridor connectivity, persistent human–wildlife conflict, and weak deterrence against illegal activities** and **Barrier 3: Limited Sustainable Livelihood Options to Support Conservation Stewardship** and achieve the **Outcome 2: Increased connectivity of wildlife habitats, decreased human-wildlife conflicts and illegal activities, and increased nature-positive income and resilience of IPLC in Ulu Jelai – Fraser’s Hill watershed**. The Outcome 2 will be achieved through delivery of four Outputs:

- **Output 2.1.** Key wildlife habitat and corridors are restored, demarcated and protected by IPLCs through Assisted Natural Regeneration and targeted planting;
- **Output 2.2.** IPLC-governed Human-Wildlife Conflict Management Initiative is launched, including elephant-proof fencing, telemetry-based early warning system, and community response groups;
- **Output 2.3.** Joint SMART patrols of PERHILITAN and community rangers are implemented to suppress snaring and encroachment in wildlife corridors;
- **Output 2.4.** Community nature-positive enterprises are established, trained, and connected to the market

IF IPLCs in collaboration with state government restore and secure priority habitats and corridors via ANR/targeted planting, launch a coexistence system with elephant-proof fencing, telemetry-based early warning, and trained community response, and conduct regular joint PERHILITAN–community SMART patrols to remove snares and deter encroachment, **THEN** landscape connectivity will increase while human–wildlife conflicts and illegal activities decline measurably across the Ulu Jelai–Fraser’s Hill watershed. Additionally, **IF** community nature-positive enterprises are created, trained, and linked to buyers, **THEN** IPLC households’ incomes and resilience will rise while dependence on extractive activities falls, strengthening incentives and resources for biodiversity

stewardship. Key **assumptions** behind Outcome 2: (a) state agencies, private landholders, and infrastructure operators continue granting access/permissions to restore corridors and install fencing/telemetry; (b) no major policy reversals or new large infrastructure (e.g., roads/resorts) are approved that fragment priority corridors during implementation; (c) law enforcement and the judiciary maintain prioritization of wildlife crime cases, with effective prosecutions that sustain deterrence; (d) stable or growing market demand and buyer commitments for nature-positive goods/services (tourism, NTFPs, organic farming, restoration services); and (e) nature-positive enterprises provide comparable or better income than distractive practices. Outcome 2 is based on the **GEF Lever 2 – Financial Leverage**, **GEF Lever 3 – Multi-Stakeholder Dialog**, and **GEF Lever 4 – Innovation and Learning** to co-design coexistence and enforcement solutions with IPLCs, agencies, and private operators, and to pilot and scale HWC management and law enforcement innovations while co-creating market linkages and stewardship agreements with IPLCs.

Component 3 is designed to raise awareness and extract lessons and best practices from implementation of Components 1-3 and make them more effective through adaptive management for removal of Barriers 1-3. The component will lead to **Outcome 3: Lessons and best practices of the project are replicated in the project area and beyond** via delivery of two Outputs:

- **Output 3.1.** ILM outreach and awareness campaign for decision-makers, communities and private sector is delivered in the project area to enhance stakeholders understanding and positive attitude biodiversity conservation;
- **Output 3.2.** ILM Knowledge Hub is established at National Biodiversity Center to collect and disseminate integrated biodiversity conservation and sustainable development practices in Malaysia.

IF a targeted ILM outreach campaign shifts norms and demand among decision-makers, communities, and businesses in the project area **and** the National Biodiversity Center hosts a ILM Knowledge Hub that curates toolkits, case studies, and replication guides and actively brokers peer-to-peer learning in the project area and across states, **THEN** tested practices will be adopted and scaled within the watershed and replicated by other Malaysian jurisdictions. Key assumptions: (a) the National Biodiversity Center retains mandate, budget, and staff to operate and promote the ILM knowledge beyond the project; (b) federal/state planning cycles and policy windows remain open to integrate new guidance and tools; (c) agencies, NGOs, and private actors are willing to share data/IP and participate in peer learning; and (d) stable public sentiment and media environment allow science-based messaging to reach target audiences without significant misinformation backlash. The Outcome 2 based on **Lever 3 – Multi-Stakeholder Dialog** and **GEF Lever 4 – Innovation and Learning** by convening IPLCs, agencies, private sector, and NGOs to co-design coexistence and enforcement protocols, while piloting and iterating innovations, so effective tactics are refined quickly and replicated across priority corridors.

Participatory and gender-responsive Monitoring and Evaluation system is designed to support Components 1-4 in effective delivery of the Outputs and achievement of the Outcomes 1-4. A participatory, gender-responsive M&E system will be embedded across Components to keep delivery of the Outputs tight and learning continuous. A Project Results Framework will be designed with all indicators tracked using sex-disaggregated data. Quarterly reports, PIR/MTR reflections, and a live risk log will drive adaptive management, while community feedback loops will inform the project implementation. Key results and lessons will be summarized by Component 4 to ensure transparency and accountability toward achieving Outcomes 1–4 efficiently and fairly.

The **achievement of the Project Objective**— *protected globally significant biodiversity and ensured sustainable development of Ulu Jelai – Fraser’s Hill watershed through implementation of a ILM approach* —is driven by the successful achievement of the four project Outcomes described above. Together, these outcomes lock in durable protection, effective management, community benefits, and learning loops that deliver a connected, climate-resilient landscape and a nature-positive local economy.

Key lessons applied for this project

A set of practice-tested lessons from relevant Malaysia and international projects was integrated into this project:

- **Anchor on “Protect–Produce–Restore” at landscape scale:** Planning and governance must integrate legal protection, sustainable production, and targeted restoration in one jurisdictional plan, not in silos^{[2]⁴⁴}.
- **Gazette core areas and secure corridors early:** State Park upgrades and corridor parcels (like Sungai Yu) need legal designations and right-of-way solutions up front to avoid later fragmentation^{[3]⁴⁵}.

- **Co-manage with Indigenous ranger units:** Orang Asli patrol models (e.g., Menraq/Project Stampede in Belum–Temengor) reduce snares, strengthen intelligence, and build legitimacy[4]⁴⁶.
- **Fast-track IPLC-managed Conservation Areas via partnership agreements:** Use FPIC-based MoUs/MoAs between communities and state agencies/park authorities to formally define rules (e.g., no-snare zones, riparian buffers), roles (patrols, restoration, HWC response), and benefit-sharing creating OECM-style governance that can be implemented now while slower policy/legislative reforms proceed in parallel[5]⁴⁷.
- **Design coexistence as a system:** Pair early-warning (telemetry/cameras), robust fencing/deterrents (e.g., ELEFence pilots in Pahang), response teams, and compensation/micro-insurance to cut HWC and build trust[6]⁴⁸.
- **Restore edges and riparian zones with ANR first:** From Terai Arc and Malaysia’s corridor work: assisted natural regeneration plus targeted enrichment in pinch points delivers fast, cost-effective connectivity gains when coupled with protection[7]⁴⁹.
- **Tie conservation to durable finance:** Landscape programs succeed when utilities and companies co-finance catchment restoration (e.g., TNB partnerships) and when PES/FCC revenues are earmarked for patrols, ANR and IPLC benefits[8]⁵⁰.
- **Build market pull for nature-positive MSMEs:** WWF landscapes stress buyer partnerships and certification/branding to make restoration crews, guiding, nurseries and NTFPs viable[9]⁵¹.

[1] https://www.wwf.org.my/sabahlandscapes/about/?utm_source

[2] [WWF Malaysia+1](#)

[3] https://4naturelah.weebly.com/mnswildlifewarrior/august-01st-2016?utm_source

[4] https://wwf.panda.org/wwf_news/?9994466%2FTigers-snares-and-Malysias-Indigenous-guardians-of-the-forest=&utm_source

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[6] https://www.utp.edu.my/Pages/The-University/Publications/UTP-Impact/Engineering-an-answer-for-human-elephant-conflict.aspx?utm_source

[7] <files.worldwildlife.org+1>

[8] [World Wildlife Fund](#)

[9] https://www.worldwildlife.org/projects/integrated-landscape-management-to-secure-nepal-s-protected-areas-and-critical-corridors?utm_sourcehttps://www.worldwildlife.org/projects/integrated-landscape-management-to-secure-nepal-s-protected-areas-and-critical-corridors?utm_source

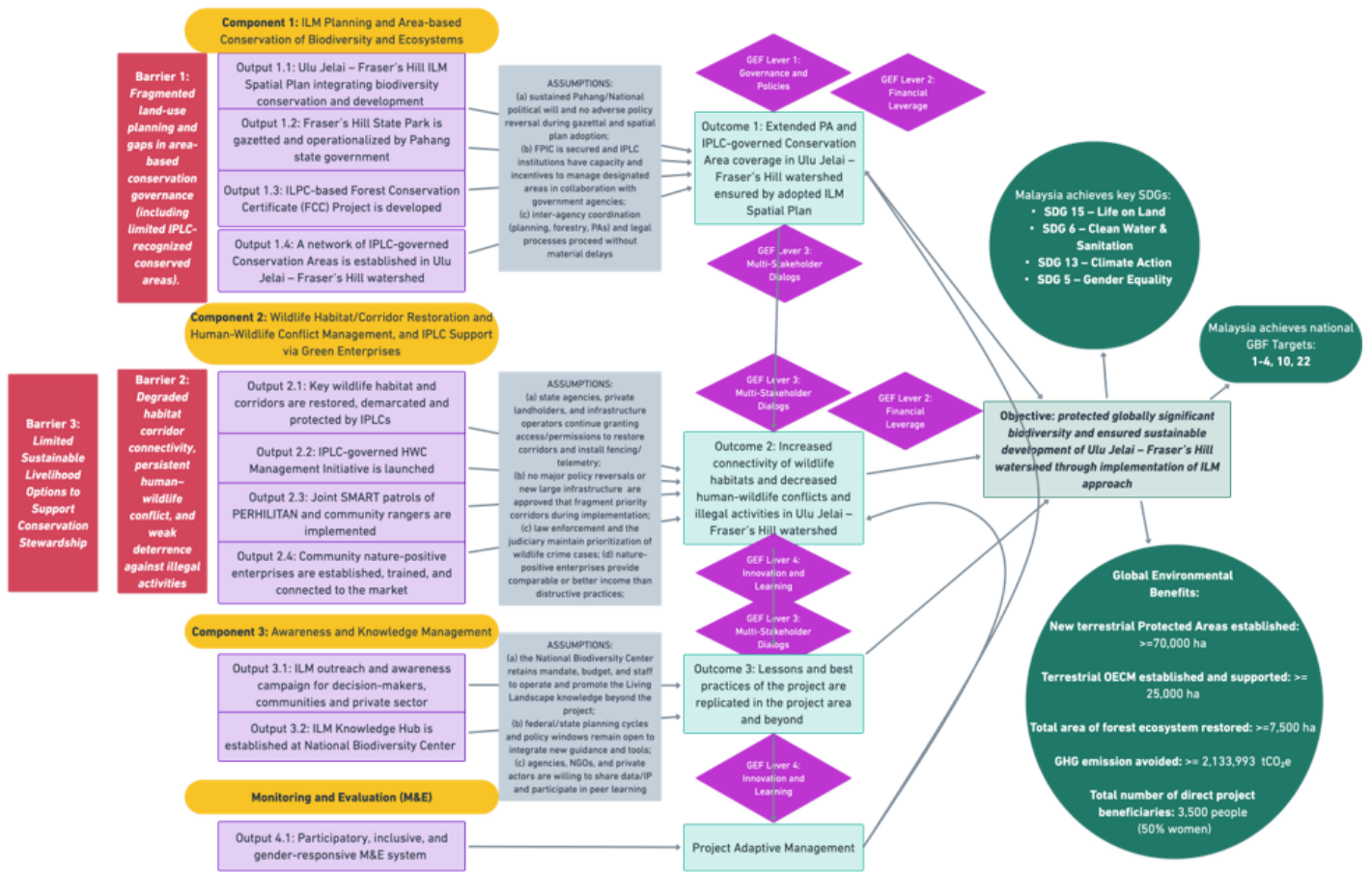


Figure 1. Project Theory of Change diagram

Suggested project area (Fig. 2). The Ulu Jelai–Fraser’s Hill landscape sits on the Titiwangsa Main Range in north-western Pahang, forming the hinge between two of Peninsular Malaysia’s largest forest blocks—the Main Range complex to the west and the Taman Negara complex to the east. Within the project area with total area about 300,000 ha, gazetted forest reserves (FRs) dominate, including the Ulu Jelai complex to the east and a proposed Fraser’s Hill State Park cluster on the west side that brings together Batu Talam FR (including Batu Talam Tambahan), Sungai Sia FR and Trantum FR, plus small state lands around the Fraser’s Hill. This cluster, shown in state planning materials as ~77–83 thousand ha area, would ring-fence the Fraser’s Hill’s high-elevation cloud and montane forests while securing extensive lower-elevation dipterocarp tracts that are nationally scarce. The wider Ulu Jelai Forest Reserve system itself is among Pahang’s largest FRs, underscoring the area’s significance as a contiguous forested watershed feeding both Pahang and Selangor’s rivers^[1].

Ecologically, the landscape is a crucial linkage node inside Malaysia’s Central Forest Spine (CFS): the national CFS portal identifies a primary corridor running through Ulu Jelai toward Lemoi/Bukit Bujang, while to the south the Sungai Yu corridor connects the Main Range to Taman Negara, an area where the government built an eco-viaduct on the Central Spine Road to maintain wildlife movement. The forests support high conservation value fauna; Malaysia’s first National Tiger Survey (2016–2020) confirmed the species’ precarious national status (<150 left), and Ulu Jelai–Fraser’s Hill remains one of the key tiger/large-mammal landscapes in Pahang with abundant ungulate prey and documented gaur use of lowland forests. At the same time, legacy logging, agricultural conversion and localized mining have created degraded edges and pinch-points that heighten human–wildlife conflict and fragment habitat, precisely the pressures the CFS program seeks to relieve through corridor protection and state park expansion.

Indigenous Peoples and Local Communities (IPLCs), mainly Orang Asli groups, are integral to the Ulu Jelai–Fraser’s Hill landscape. Malaysia’s national statistics estimate the Orang Asli population at ~213,461 (2020) and ~227,900 (2025), with Pahang having the largest Orang Asli population among states and Lipis being among the districts with the highest Orang Asli populations^[2]. The Semai form the largest presence, with ~80 villages concentrated along the Jelai river valley and its tributaries (e.g., Sungai Bertam and Sungai Telom) and clustered around RPS^[3] Betau, with smaller settlements near Pos Sinderut and Pos Terisu. The north-western fringe lies within Temiar traditional territories, while the north-eastern fringe borders Mendriq areas; there is also a small Batek

resettlement (Kg. Teluk Gunung) near Merapoh. IPLC's livelihoods combine smallholder rubber/oil-palm plots, wage work, NTFP harvesting, fishing, and (historically) swidden, now reduced in many villages, creating a mosaic of customary use zones that overlap lowland forests and riparian valleys where HWC (particularly with elephants) occur. Community governance is organized through a combination of traditional leadership (Tok Batin) and formally appointed village committees (JPKKOA), which serve as key interfaces with JAKOA and district/state agencies[4]. Orang Asli households are over-represented in the lowest income bracket (B40), reflecting limited access to stable markets, assets, and services and the long-standing challenge of customary land insecurity[5]. For example, a study from Pos Lenjang, Kuala Lipis, Pahang (2024) (Semai communities) reports 94.4% of surveyed households had monthly household income less than RM 500[6].

Malaysia's wildlife department (PERHILITAN) has publicly stated that Orang Asli can be manipulated/used by outsiders for illegal poaching due to livelihood insecurity[7]. At the same time, Indigenous participation in conservation enforcement is well-established in Peninsular Malaysia, including community ranger models for snare removal and reporting, and national scale-up of community rangers largely drawn from Orang Asli communities[8]. In the Ulu Jelai–Fraser's Hill landscape, Orang Asli IPLCs retain traditional ecological knowledge (TEK) that is directly relevant to corridor and watershed stewardship: knowledge of seasonal forest foods and tubers, medicinal plants, wildlife behavior and movement routes, saltlicks/fruited trees, and practical tracking skills (sign reading, trails, and hunting/avoidance indicators)[9]. Bateq TEK guides identification, harvesting, processing, and conservation of forest food resources (e.g., multiple wild tuber species and associated sustainable harvesting practices). This TEK is also operationally valuable for conservation: reporting on Orang Asli patrol models describes how Indigenous patrollers combine traditional rainforest knowledge with GPS mapping and modern patrol/reporting systems, improving detection and response to threats such as snares and illegal entry[10]⁵².

[1] BFM+1

[2] <https://www.thestar.com.my/news/nation/2025/10/14/orang-asli-population-hits-227900-in-2025-says-stats-dept> ;

[3] Orang Asli Regroupment/Resettlement Scheme

[4] <https://www.jakoa.gov.my/penyampaian-bantuan-bakul-makanan-kepada-kampung-orang-asli-yang-terlibat-dengan-covid-19/>

[5] <https://www.thestar.com.my/lifestyle/living/2020/08/18/malaysia039s-orang-asli-are-locked-into-poverty>

[6] <https://pmc.ncbi.nlm.nih.gov/articles/PMC11378485/>

[7] <https://www.sinardaily.my/article/191864/focus/national/orang-asli-used-for-illegal-poaching-by-outsiders-says-wildlife-dept>

[8] <https://www.thestar.com.my/news/nation/2024/11/22/guardians-of-the-forest> ;
<https://thesun.my/news/malaysia-news/nres-to-deploy-3000-community-rangers-to-enhance-forest-and-wildlife-protection-1b14153899/>

[9] <https://jms.mabjournal.com/index.php/mab/article/view/2908>

[10] <https://www.nst.com.my/amp/lifestyle/sunday-vibes/2021/03/671647/orang-asli-wildlife-patrollers-are-new-heroes-royal-belum>



Figure 2. Project area: Ulu Jelai–Fraser’s Hill landscape (see Annex C for detailed map)

Incremental Cost Reasoning

Business-as-usual scenario (BAU): In the absence of GEF support, the Ulu Jelai–Fraser’s Hill watershed would only see fragmented, business-as-usual conservation efforts, yielding local gains but falling short of global environmental benefits. Without an integrated ILM approach, land-use planning would remain sectoral and uncoordinated. Protected areas in the watershed (e.g., Fraser’s Hill Reserve and Ulu Jelai Forest Reserve) would likely remain isolated, with no concerted action to maintain wildlife corridors. Ongoing government programs (such as the Central Forest Spine plan) might partially address conservation, but critical connective habitats would still be at risk of conversion or degradation. Forest fragmentation would thus continue unabated, undermining the habitat of globally significant species like the Malayan tiger and Asian elephant. Under the baseline, habitat restoration would be minimal, limited to small, ad-hoc tree planting or natural regeneration, leaving many degraded areas unrestored. HWC would likely intensify as animals lose habitat and range into farms and villages. Currently, forest clearing in Ulu Jelai has already driven elephants into local communities with fatal consequences. Without proactive measures, such conflicts (crop losses, property damage, and injury) would rise, eroding community tolerance for wildlife and prompting retaliatory harm to endangered animals. In a business-as-usual scenario, IPLCs have few livelihood alternatives beyond subsistence farming, hunting, or informal logging. Poverty and lack of access to modern amenities (like electricity) persist, forcing communities to rely on resource extraction for income. Without intervention, no new green enterprises (ecotourism, sustainable harvest of forest products, etc.) would materialize to supplement incomes. This means continued pressure on forests and wildlife (e.g., poaching or land clearing for agriculture) as communities struggle to meet their needs. In sum, the baseline trajectory would see ongoing biodiversity loss and suboptimal resource use – for example, it’s

estimated that ~20,000 hectares of forest in this landscape could be lost over the next decade without additional action, leading to nearly 1.5 million tons of carbon emissions released into the atmosphere along with irreparable habitat loss^[1].

Incremental cost reasoning (GEF additionality): The project's design follows the GEF incremental cost principle, meaning GEF funds are used to pay for the incremental activities that generate global benefits on top of the baseline scenario. In the business-as-usual case, Malaysia's government and other actors would continue investing in the watershed, but primarily for domestic benefits (such as timber production, basic protected area management, or rural development) which are insufficient to secure the global biodiversity values at stake. GEF financing is thus justified to cover the gap between what the country would normally do and what is needed to achieve long-term global environmental objectives. For each component, the GEF's role is to enable or enhance interventions that have clear global impact but would not be financed under BAU. For example, under Component 1, while local authorities might enforce existing protected areas, they would not on their own undertake landscape-scale corridor planning or designate new conservation areas at the expense of economic land use, those actions represent an incremental cost for global biodiversity gain. GEF funds will bankroll the technical assistance, spatial planning, and multi-stakeholder coordination needed to develop these landscape plans and policies. Similarly, in Component 2, the level of systematic habitat restoration and HWC management envisioned goes well beyond routine government efforts (which tend to be reactive or small-scale). The GEF grant finances these extra efforts, from ecosystem restoration to community HWC program, because they yield global benefits (e.g. sustaining wildlife populations) that are not accounted for in typical local budgets. Also, diversifying livelihoods is an endeavor with upfront costs and risks that neither communities nor government alone would cover. Here, GEF investment de-risks and demonstrates these innovative activities, effectively showing how conservation and development can go hand-in-hand. The global payoff is reduced pressure on biodiversity and carbon emissions, which justifies GEF's involvement. Lastly, in Component 3, creating a robust knowledge management and replication mechanism is an incremental effort aimed at scaling up impact nationally and globally, something generally outside the scope of regular projects. In essence, GEF resources are catalytic: they fund the strategic additions to the baseline that ensure the project delivers global environmental benefits (like saving endangered species and sequestering carbon) in alignment with GEF's biodiversity and climate change strategies. This investment is tightly aligned with international priorities (e.g., CBD targets) and national commitments, reinforcing strategic fit. By covering these incremental costs, the GEF enables a project design that achieves both national development outcomes and global environmental benefits (described below), whereas without GEF the latter would be largely unachieved.

Global Environmental Benefits (GEBs): The project directly targets biodiversity conservation and sustainable use as global benefits deriving from ILM approach. The project GEBs include:

- **New terrestrial Protected Areas established:** >=70,000 ha of tropical forest ecosystems protected by established Fraser's Hill State Park (GEF CI 1.1);
- **Terrestrial OECM established and supported:** >= 25,000 ha of IPLC-managed Conservation Areas covering important wildlife habitat including FCC project area (GEF CI 4.5);
- **Total area of forest ecosystem restored:** >=7,500 ha of selectively logged/degraded forest restored in wildlife corridors (GEF CI 3.2);
- **GHG emissions reduced/removed:** >= 2,133,993 tCO₂e in reduced/removed GHG emission over 20 years period achieved through decreased deforestation rate and forest restoration (GEF CI 6.5);
- **Total number of direct project beneficiaries:** at least 3,500 people (50% women), including at least 3,000 IPLCs in the project area (GEF CI 11).

Expected Co-Benefits of the project

Based on the *STAP Information Brief on Refining the Tracking of Co-Benefits in Future GEF Investments*^[2], the co-benefits of this project in Malaysia are the following:

- **Climate change adaptation & disaster risk reduction:** Reconnected forests and stabilized riparian buffers reduce landslide/erosion risk and dampen flood peaks, while coexistence measures lower climate-sensitive livelihood losses from wildlife incursions.
- **Water security & regulating services:** Protection of upper catchments improves baseflow regulation and water quality for downstream users (communities, utilities, and enterprises). Expected co-benefits include reduced dredging/maintenance costs for reservoirs/intakes, fewer treatment upsets, and improved dry-season reliability.

- **Inclusive livelihoods & poverty reduction:** Nature-positive MSMEs (NTFPs, guiding, restoration services, eco-agri products) raise household incomes and resilience.
- **Health and well-being:** Cleaner surface water from reduced sediment and agrochemical runoff, coupled with lower HWC stress and injuries, yields tangible health gains.
- **Governance, equity, and knowledge:** FPIC-based community stewardship agreements, the gazettement/operationalization of Fraser’s Hill State Park, and an IPLC-governed conservation network strengthen tenure security-in-practice, rule compliance, and trust.
- **Economic efficiency & avoided damages:** Reduced crop loss from HWC, fewer illegal logging/poaching events, and lower roadkill translate into avoided private and public expenditures (compensation, patrol, veterinary, rescue, and road-maintenance costs).

Project Outputs (direct project products and services)

Brief description of the project Outputs is provided below:

Component 1. ILM Planning and Area-based Conservation of Biodiversity and Ecosystems

Outcome 1. Extended PA and IPLC-governed Conservation Area coverage in Ulu Jelai – Fraser’s Hill watershed ensured by adopted ILM Spatial Plan

Output 1.1. Ulu Jelai – Fraser’s Hill ILM Spatial Plan integrating biodiversity conservation and development is produced and adopted by Pahang state and national governments

The project will produce a comprehensive spatial plan for the Ulu Jelai–Fraser’s Hill landscape that fully integrates biodiversity conservation with sustainable development. This ILM Spatial Plan (ILMSP) applies a holistic land-use approach balancing conservation and production needs. It delineates critical ecological zones for protection (e.g., core forest habitats, water catchments, wildlife corridors) and identifies where sustainable economic activities (such as eco-tourism, agroforestry, or community forestry) can occur without degrading the ecosystem. Restoration areas and wildlife corridors are mapped to reconnect fragmented habitats, guided by national priorities like Peninsular Malaysia’s Central Forest Spine network which aims to restore connectivity for key species. Importantly, the spatial plan will be institutionalized by securing its adoption at both state and national levels. Fraser’s Hill and its ecosystems are recognized as an Environmentally Sensitive Area (ESA) Rank 1 under Malaysia’s National Physical Plan and the Pahang State Structure Plan, underscoring the need for strict land-use controls. The ILMSP will also legally recognize and practically resource IPLC–government co-managed areas (spatial basis for Outputs 1.3 and 1.4) The plan’s recommendations such as establishing a wildlife corridor linking Ulu Jelai Forest Reserve to Taman Negara in the east will be incorporated into official land-use plans (Special Area Plan or/and Local Plan). Endorsement by the Pahang State Government and relevant federal agencies (Federal Department of Town and Country Planning, Peninsular Malaysia (PLAN Malaysia), Forestry Dept. of Peninsular Malaysia (JPSM/FDPM), and Department of Wildlife and National Parks, Peninsular Malaysia (PERHILITAN) ensures that future development in the area adheres to the plan’s zoning prescriptions, harmonizing economic growth with long-term biodiversity conservation. Gender will be mainstreamed in this Output by conducting FPIC-based, inclusive consultations (≥50% women, including Orang Asli women), applying sex-disaggregated data to map needs and risks, and hardwiring gender-responsive safeguards, zoning rules, and benefit provisions into the ILMSP and its adoption.

Output 1.2. Fraser’s Hill State Park is gazetted and operationalized by Pahang state government

Fraser’s Hill’s core forests will be elevated to a legally protected status through gazettement as a State Park. The Pahang government has already initiated this process by earmarking 8,133 hectares of the Batu Talam Forest Reserve to be gazetted as Fraser’s Hill State Park^[3]. The total planned State Park area is ~ 70,000 ha, including Batu Talam Forest Reserve, Sungai Sia Forest Reserve, Trantum Forest Reserve and adjacent areas. State Park designation confers the highest level of protection under state law: these forests will be strictly conserved as “no-take” areas that cannot be logged or exploited. Only low-impact uses such as research, environmental education and regulated nature tourism will be permitted, while harmful activities (e.g., mining, commercial logging) are totally forbidden within the park’s boundaries. This legal status secures the mountain’s rich wildlife and water catchment functions in perpetuity. To operationalize the State Park, a management plan and institutional framework will be established. A dedicated park management unit (*Perbadanan Taman Negeri Pahang (PTNP)* as the state park authority, with operational support from the Pahang State Forestry Department for forest operations and PERHILITAN for wildlife enforcement) will be tasked with enforcement, biodiversity monitoring, and visitor management (20-25 staff total). Essential infrastructure for patrolling and eco-tourism will be put in place, and local communities will be engaged in co-management (for instance, employing community members as park

rangers or eco-guides). Sustainable financing mechanisms, such as modest conservation fees for visitors, will be introduced to support park operations, following models where tourism revenue is reinvested in protected area management. With proper staffing and resources, Fraser's Hill State Park will be fully operational, ensuring the area's unique ecosystems are effectively managed and protected on the ground. Gender will be mainstreamed in this Output by ensuring FPIC-based participation ($\geq 50\%$ women, including Orang Asli women) in gazettement and park planning; setting hiring/leadership targets for PTNP rangers and eco-guides (e.g., $\geq 30\%$ women); and earmarking tourism revenues to support women-led livelihoods.

Output 1.3. ILPC-based Forest Conservation Certificate (FCC) Project is developed, adopted by Pahang government, and implemented

An innovative financing mechanism for forest conservation will be developed and implemented (covering $\sim 20,000$ ha), centered on Indigenous Peoples and Local Communities (IPLCs). This output entails designing a Forest Conservation Certificate (FCC) project in the Ulu Jelai–Fraser's Hill landscape that is co-developed and co-managed with local communities. The FCC is a newly established non-market instrument in Malaysia aimed at channeling private funding into conservation and sustainable forest management. It emphasizes transparency (via public registry and third-party verification) and recognizes multiple co-benefits, including biodiversity protection, climate regulation, and community wellbeing, resulting from forest conservation activities.

Malaysia's Forest Conservation Certificate (FCC) is proposed in this project as a non-market, results-based conservation finance mechanism rather than a tradable carbon credit. Under this arrangement, a state-sanctioned proponent would register the project with the Malaysia Forest Fund (MFF), while Orang Asli and other IPLC groups would participate through FPIC-based co-management and stewardship agreements as on-the-ground implementers and beneficiaries. Funding would come from voluntary corporate or other donor contributions mobilized through the FCC platform, and disbursements would be made against independently verified progress and results, including forest area conserved/restored and agreed biodiversity and community indicators. In this way, FCC would compensate and sustain conservation actions such as patrolling, restoration, no-snare enforcement, and corridor stewardship, while ensuring transparency through MFF's public registry, third-party verification, and disclosed disbursement records.

Building on this framework, the project will formulate a site-specific non-market, biodiversity-positive, results-based conservation scheme in which IPLCs are key implementers and beneficiaries. This means local communities will actively participate in project design (ensuring free, prior and informed consent), carry out on-the-ground conservation actions (such as forest patrols or restoration), and receive a fair share of the benefits (e.g., payments or livelihood improvements) from maintaining the forests. The Project will establish an IPLC-centered conservation finance mechanism in the Ulu Jelai–Fraser's Hill landscape using Malaysia's Forest Conservation Certificate (FCC), administered by the Malaysia Forest Fund (MFF). The Pahang State Government (through the State Forestry Department/PTNP) will serve as Proponent, entering into a registration and performance agreement with MFF. IPLC organizations will be contracted as on-ground implementers and beneficiaries under documented FPIC. A public Registry will disclose application, validation/verification, and milestone-based disbursements. Verified outcomes (e.g., hectares conserved/restored, biodiversity and community co-benefits) will trigger payments. Revenues will be transparently reinvested into forest protection, wildlife monitoring, and IPLC livelihoods, in line with the FCC Protocol. Gender will be mainstreamed in this Output by ensuring FPIC-based co-design with $\geq 50\%$ women (including Orang Asli women), reserving $\geq 40\%$ of paid roles and governance seats for women, using sex-disaggregated indicators to track benefits, and requiring equitable, direct-to-women payment channels and grievance redress in FCC agreements.

Output 1.4. A network of IPLC-governed Conservation Areas (riparian & headwater protection zones, sacred/adat groves & cultural forests, and wildlife corridor & "no-snare" community zones) is established in Ulu Jelai – Fraser's Hill watershed

A network of community-governed (OECM-like) conservation areas will be established across the Ulu Jelai–Fraser's Hill watershed (covering at least 5,000 ha), managed by IPLCs. These conservation areas cover several categories of high importance to both biodiversity and local residents: (i) riparian and headwater protection zones – stretches of riverbanks and upland watersheds safeguarded by communities to preserve water quality and flow; (ii) sacred groves and adat (customary) forests – patches of forest that hold cultural or spiritual significance (e.g., ancestral burial sites, ritual gathering places) which communities agree to protect from disturbance; and (iii) wildlife corridor and "no-snare" zones – strips of land or forest linking larger habitat blocks where communities voluntarily prohibit hunting and trapping. Through participatory land-use mapping and dialogues, the project will help local villages identify these critical areas and formalize their status via community rules or ordinances. Each area will have clear community-defined boundaries and management norms (such as bans on land clearing, no setting of snares, replanting of riverbank vegetation, etc.), thereby creating a patchwork of safe havens for wildlife and intact ecosystems within the broader landscape. This community conservation network will be embedded as statutory overlays in the ILMSP and Special Area Plan (RKK)/Local Plans (Output 1.1) and directly complement the formal protected areas (like Fraser's Hill State Park) by filling in ecological gaps and buffer zones. Strategically located, the IPLC-managed areas will enhance habitat connectivity, for example, linking the state park and forest

reserves through corridors on customary lands, so that wildlife can migrate between them safely. Enforcement of the IPLC conservation areas will be co-implemented with PERHILITAN under the Wildlife Conservation Act 2010, integrating community patrols modelled on proven Peninsular initiatives (e.g., Malaysian Conservation Alliance for Tigers (MYCAT) Sungai Yu, Menraq) and applying Department of Irrigation & Drainage (DID) river-reserve standards for riparian buffers. Governance of the conservation areas will be formalized via state-IPLC Co-Management Agreements. For establishment of IPLC-governed Conservation Areas the project will mainly use Permanent Reserved Forests managed by the State Forestry Department. For riparian and drainage protection zones, the project will work with DID as the key technical authority (buffer requirements, drainage/river management and maintenance access), and the State/District land authorities and local planning bodies. This approach aligns with IUCN-WCPA OECM guidance and Malaysia's ongoing OECM readiness work, ensuring IPLC-governed areas contribute to national conservation targets while strengthening cultural heritage and community livelihoods. Gender will be mainstreamed in this Output by securing FPIC-based, inclusive co-design ($\geq 50\%$ women, including Orang Asli women), reserving $\geq 30\%$ of governance and patrol roles for women, providing gender-responsive training/safety measures, and using sex-disaggregated monitoring to ensure equitable benefits.

Component 2. Wildlife Habitat/Corridor Restoration, Human-Wildlife Conflict Management, and IPLC support via Green Enterprises

Outcome 2. Increased connectivity of wildlife habitats, decreased human-wildlife conflicts and illegal activities, and increased nature-positive income and resilience of IPLC in Ulu Jelai – Fraser's Hill watershed

Output 2.1. Key wildlife habitat and corridors are restored, demarcated and protected by IPLCs through Assisted Natural Regeneration and targeted planting

In the Ulu Jelai–Fraser's Hill landscape IPLCs are leading efforts to restore and protect vital wildlife corridors. Local Orang Asli (the Bateq community of Kg. Orang Asli Berchah Kelubi in Sungai Yu) and Malay smallholder villages in the area actively participate in ANR and enrichment planting initiatives^[4]. Under the guidance of the Pahang State Forestry Department and the Forest Research Institute Malaysia (FRIM), these communities have helped replant native tree species in degraded connecting forests. Thus, this output will deliver large-scale restoration of degraded forest areas within critical wildlife corridors under the leadership of Pahang State Forestry Department. The project will carry out reforestation and enrichment planting on degraded or selectively logged lands, working with local communities and experts to reintroduce native tree species. The key priority sites for restoration are (1) the Sungai Yu–Ulu Jelai wildlife corridor, (2) the Fraser's Hill core & periphery within Batu Talam FR/the proposed Fraser's Hill State Park, and (3) the Hulu Lemoi–Bukit Bujang linkage. By rehabilitating these forests, the project re-establishes continuous habitat where wildlife can safely move and forage, effectively reconnecting fragmented areas. Efforts such as assisted natural regeneration and controlled plantings will rapidly improve forest cover and quality, laying the groundwork for a healthier ecosystem. By the end of the project, at least 7,500 hectares of previously degraded or logged forest will be restored under this output. Achieving this target means the project not only improves biodiversity and habitat connectivity but also enhances carbon storage. The restored corridors will provide expanded safe havens for wildlife and help absorb carbon dioxide from the atmosphere. This contributes significantly to the project's climate goals, as healthier, growing forests sequester carbon and bolster resilience against climate change. Gender will be mainstreamed in this Output by ensuring FPIC-based, inclusive participation ($\geq 50\%$ women, including Orang Asli women) in site selection and restoration, reserving $\geq 40\%$ paid roles (nursery, ANR teams, monitoring) for women, and using sex-disaggregated indicators and safe, gender-responsive field protocols.

Output 2.2. IPLC-governed Human-Wildlife Management Initiative is launched, including elephant-proof electric fencing, telemetry-based early warning system, and community response groups

The project will design, install, and hand over IPLC-governed ELEFence systems (developed by Universiti Teknologi of National Petroleum (PETRONAS) with PERHILITAN collaboration) at high-risk farm and village frontiers in the Ulu Jelai–Fraser's Hill landscape, co-managed with PERHILITAN, JAKOA, Pahang State Parks Corporation (PTNP), and District Offices. The system will include: (i) solar-powered elephant-proof electric fencing ("ELEFence") prioritized along forest–farm interfaces of the Sungai Yu–Ulu Jelai corridor and Fraser's Hill periphery; (ii) telemetry-based early-warning system, including at least 3-4 GPS collars on local elephant groups feeding a village alert system (SMS/WhatsApp sirens and flashing beacons at watch posts) with geofenced triggers; (iii) community response groups (CRGs) in each participating village (women and men), trained and equipped with non-lethal deterrents (high-lumens lights, airhorns, chili-briquettes, handheld radios), first-aid; and (iv) conflict-proofing of assets including wildlife-proof grain stores, reinforced livestock pens, crop-switch or buffer plantings (non-palatable border rows), solar lighting at field edges, and community ELEFence toolkits (testers, spare insulators, vegetation-clearing tools). During PPG, the project will undertake a site- and species-specific HWC situation assessment, based on the best available scientific and social evidence and informed by in-depth consultations with Indigenous Peoples and local communities, to guide the design of context-appropriate coexistence and mitigation measures and avoid unintended consequences. All sites will have FPIC-based village agreements, mapped risk zones, and annual O&M budgets; JAKOA will formalize village HWC committees and modest stipends for fence stewards. Key activities will include

training and deploying community wildlife rangers or rapid response teams to intervene when animals stray into villages or farms. Through these interventions, the project aims to achieve at least a 50% decrease in reported human–wildlife conflict incidents in the target area. This substantial reduction will demonstrate the effectiveness of the conflict mitigation programs and will foster better coexistence between local communities and wildlife, a critical condition for long-term conservation success. Gender will be mainstreamed in this Output by ensuring FPIC-based co-design with ≥50% women (including Orang Asli women), reserving ≥30% of CRG/fence-steward and leadership roles for women, providing gender-responsive training/safety measures, and tracking HWC outcomes with sex-disaggregated data.

Output 2.3. Joint SMART patrols of PERHILITAN and community rangers are implemented to suppress snaring and encroachment in wildlife corridors

Joint patrols will be organized under a PERHILITAN-led Joint Operations Plan that divides the Ulu Jelai–Fraser’s Hill landscape into patrol blocks (5–15 km²) and schedules two complementary patrol types: routine deterrence patrols and targeted multi-team sweep operations triggered by intelligence, camera-trap hits, or satellite/drone alerts. The project will support a Rapid Response Team to interdict priority incidents. Joint patrol teams (PERHILITAN, PTNP/JPNP, and trained IPLC rangers) will use SMART Mobile for data capture and follow standardized SOPs on snare detection and removal, evidence handling, and safety. Trainings (with semi-annual refreshers) will cover patrolling, legal procedures, first aid, and tech use (SMART, GPS, camera traps, drones). Patrolling teams will be equipped with VHF radios, satellite communicators, GPS/smartphones, bolt cutters and cable shears, first-aid, 4x4 and trail bikes, drones, and other field equipment. Encroachment monitoring will blend weekly satellite alert reviews (e.g., GLAD/RADD), monthly Sentinel-2 scans, quarterly drone flights, and a community tipline. This makes protection predictable, data-led, and enforceable across the corridors. IPLC rangers will participate lawfully in the patrols via state-endorsed MoUs and official appointment letters and will work alongside PERHILITAN/JPNP/PTNP under approved SOPs, contributing evidence that stands up in court without taking on arrest powers reserved for government officers. Through this Output the project aims to decrease snare encounter rate by 60% and decrease encroachment incidents (illegal felling, farming, mining, new access) by 50% in the project area. Gender will be mainstreamed in this Output by ensuring FPIC-based participation with ≥50% women (including Orang Asli women) in patrol planning and training, reserving ≥30% paid community-ranger/leadership roles for women, providing gender-responsive equipment and safety protocols, and tracking results with sex-disaggregated data.

Output 2.4. Community nature-positive enterprises are established, trained, and connected to the market

This Output will deliver the establishment of at least 20 community-led, nature-positive enterprises across the Ulu Jelai–Fraser’s Hill IPLC areas. These enterprises, with at least 40% of them women-led, will operate under formal stewardship agreements (MoUs) that bind communities to conservation commitments such as maintaining riparian “no-take” zones along rivers, a zero-snaring policy to eliminate poaching, and HWC-smart farming practices that protect crops while safeguarding wildlife. The project will support a diverse range of sustainable businesses identified with the communities, including eco-tourism ventures (e.g. guided forest hikes, wildlife watching and homestays), agroforestry farms cultivating mixed crops and forest fruits (like durian orchards under native canopy), artisan handicrafts cooperatives making products from sustainably harvested rattan and bamboo, community beekeeping and honey production initiatives, cultivation of traditional herbs and non-timber forest products (NTFPs), sustainable fish farming in contained ponds, and other viable green enterprises. By creating revenue streams tied to healthy ecosystems, the community enterprises provide an economic incentive for stewardship of forests and wildlife. For example, similar projects in Southeast Asia have shown that supporting indigenous communities to produce honey, handicrafts and other forest-based goods can keep forests intact while increasing profits^[5]. Each enterprise will have a formal business plan and a stewardship MoU, ensuring that economic activities (whether tourism, farming or product harvesting) directly contribute to conservation goals such as protecting riverbank habitats and wildlife corridors. In tandem with establishing enterprises, The Output will provide comprehensive capacity-building and market linkage support to ensure their success and resilience. At least 600 IPLC members (with women comprising 50%) will be trained in skills needed to run and grow these green businesses – including basic enterprise management and cooperative governance, food safety and processing standards, product branding and packaging, and digital marketing and sales techniques to reach broader markets. These trainings will empower participants to produce high-quality goods and services that meet market standards, thereby improving profitability and customer trust. Strong market connections will be forged by the project: this may include facilitating partnerships with eco-tourism operators, linking handicraft makers to fair-trade outlets, or helping agroforestry farmers sell directly to consumers where possible. Such direct market access has proven benefits^[6], for example, when indigenous durian growers in Malaysia sold their fruit under a community brand, they earned roughly double to triple the price per kilogram compared to selling through middlemen^[7]. Additionally, the project will work to diversify farmers’ market channels, including negotiating fairer terms with existing traders and intermediaries. In many IPLC areas, middlemen also provide informal credit and liquidity; rather than assuming they can be replaced, the project will work with communities to improve transparency, price discovery and contract conditions, and to pilot alternative models (e.g. cooperative marketing, direct-to-buyer contracts) where local conditions allow. Just as importantly, this Output will strengthen community resilience and conservation outcomes: with stable, nature-positive income sources, IPLC members will have less incentive to engage

in unsustainable activities, thereby reducing threats to biodiversity while improving their quality of life. Gender will be mainstreamed in this Output by ensuring FPIC-based, inclusive enterprise design (≥40% women-led), training ≥50% women, using sex-disaggregated KPIs, providing gender-responsive financing and market access (direct-to-women payment channels), and enabling participation through safety, childcare, and grievance mechanisms.

To reduce the high failure rate commonly seen in community enterprise interventions, the project will apply a viability-first enterprise development approach. Support will not be limited to launching enterprises, but will focus on establishing a smaller portfolio of commercially viable and economically sustainable businesses that can generate durable income and reduce dependence on activities that drive encroachment, degradation, and wildlife pressures. During the PPG phase, the project will undertake enterprise feasibility and market assessments covering demand, competition, margins, seasonality, logistics, working capital needs, governance risks, and buyer requirements. Only enterprise models that demonstrate realistic market potential and alignment with stewardship commitments will be supported. Project assistance will include business planning, unit-costing and pricing, quality control, basic bookkeeping, cooperative governance, food safety/HACCP where relevant, branding, and structured buyer engagement. Enterprise support will be phased from incubation to pilot operations and only those models that demonstrate commercial performance and governance readiness will receive follow-on support. Where enterprises show weak viability, the project will redirect effort toward lower-risk livelihood and stewardship payment mechanisms rather than sustaining non-viable businesses.

Component 3. Awareness and Knowledge Management

Outcome 3. Lessons and best practices of the project are replicated in the project area and beyond

Output 3.1. ILM outreach and awareness campaign for decision-makers, communities and private sector is delivered in the project area to enhance stakeholders understanding and positive attitude biodiversity conservation

Under the project's ILM Approach (a holistic, multi-stakeholder conservation strategy integrating forest protection, sustainable production, and restoration) an extensive outreach and awareness campaign will be delivered in the project area. The campaign will engage stakeholders at all levels, including local communities (with a focus on IPLC), local, district and state government decision-makers, and private sector actors such as plantation managers and tourism operators. It will be designed to enhance stakeholders' understanding of biodiversity conservation and promote positive attitudes toward corridor-safe (wildlife-friendly) development practices. This campaign will employ targeted workshops, capacity-building sessions, and public outreach (e.g., community events and local media) to convey the importance of preserving ecological corridors and adopting sustainable land-use practices. This heightened awareness across communities, authorities, and businesses is expected to translate into stronger support for on-the-ground conservation actions and policies to safeguard wildlife corridors. For example, multi-stakeholder engagements under the campaign will bring together participants from diverse sectors to jointly address conservation challenges, fostering a shared commitment to sustainable solutions. Private sector partners, such as palm oil plantation operators, will also gain greater awareness of biodiversity issues, advantages of nature-positive practices, and are expected to begin adopting more wildlife- and environmentally-friendly practices in their operations as a result of this outreach. Gender will be mainstreamed in this Output by ensuring FPIC-based, inclusive outreach with ≥50% women (including Orang Asli women) as participants and co-facilitators, tailoring materials and scheduling to women's needs, and tracking attitude/behavior changes with sex-disaggregated indicators.

Output 3.2. ILM Knowledge Hub is established at National Biodiversity Center to collect and disseminate integrated biodiversity conservation and sustainable development practices in Malaysia

The project will establish and operationalize an ILM Knowledge Hub at the National Biodiversity Center (NBC) as a dual platform: (i) a digital portal (public site plus login workspace) hosted on NBC infrastructure, and (ii) a physical resource center at NBC equipped for walk-in access, trainings, and curation. The Hub will run a helpdesk and quarterly knowledge workshops/webinars and publish a biannual Lessons Digest. To drive scale-up, the Hub will broker replication in other states by delivering state replication packages and convening peer-to-peer exchanges, targeting formal uptake by Peninsular Malaysia states (e.g., adoption of ILMSP methods, corridor overlays, and IPLC co-management mechanisms). The project will support MoUs or letters of intent with participating states, provide on-demand technical backstopping (remote and in-person workshops and site visits), and track replication. By project close, the Hub will be fully handed over to NBC with a maintenance budget line, trained NBC staff, and a three-year sustainability plan (governance charter, content pipeline, and partnership agreements), ensuring continued dissemination of lessons and measurable replication of the ILM approach beyond the project area. Gender will be mainstreamed in this Output by ensuring ≥50% women (including Orang Asli women) co-create, curate, and lead the Hub, embedding sex-disaggregated KPIs, accessible formats/scheduling, women-focused mentorship and micro-grants, and governance quotas in NBC's Hub charter.

Participatory and gender- responsive Monitoring and Evaluation Framework

Output 4.1. Participatory, inclusive, and gender-responsive M&E system is implemented to measure the project effectiveness, and support Adaptive Management

Under this Output the project will develop and implement a participatory and gender- and youth-responsive M&E framework in accordance with the Results-Based Management (RBM) approach practiced by UNDP and GEF. For the M&E, the project will use Output, Outcome, and Impact (GEB) Indicators monitored at quarterly and annual basis. M&E system will be applied to monitor the project effectiveness, check the project assumptions, and practice adaptive project management. It will actively ensure the participation of IPLCs, women, youth, and other vulnerable groups in the monitoring processes, ensuring their perspectives and feedback are integrated into adaptive management decisions. The M&E system will be a key tool for adaptive project management, enabling project teams to monitor project effectiveness, validate key assumptions, and adjust strategies based on real-time feedback. The findings from this continuous learning process will directly inform Outputs under Components 1-4, and will feed into the project adaptive management. Compliance with UNDP SES and GEF requirements will be assured through quarterly reviews and publicly accessible summaries for transparency and accountability.

Key Stakeholders

The ILM Project will be delivered through structured engagement of stakeholders at federal, state, district/local, and community levels to ensure an integrated, enforceable model that aligns biodiversity conservation with sustainable development in the Ulu Jelai–Fraser’s Hill landscape and enables replication in other states. Concept preparation and design have involved transparent consultations to: (i) socialize the ILM objective/scope and solicit early inputs; (ii) surface implementation risks and co-develop initial mitigations; (iii) clarify institutional roles and co-financing; and (iv) define replication pathways into state plans. The following core stakeholder groups and roles are envisaged for project development and implementation:

- **Ministry of Natural Resources and Environmental Sustainability (NRES) / National Biodiversity Centre (NBC):** National policy oversight and Implementing Partner for biodiversity; chairs the national Steering Committee; houses the ILM Knowledge Hub (Component 4) and coordinates federal–state replication; aligns project outputs with GBF targets, National Policy on Biological Diversity, and climate commitments.
- **PLAN Malaysia (Federal Dept. of Town & Country Planning) / National Physical Planning Council (NPPC/MPFN):** Federal technical vetting and policy noting of the ILM Spatial Plan (ILMSP); guidance on integration with the National Physical Plan (NPP); templates for Special Area Plan (RKK)/Local Plan overlays (Environmentally Sensitive Area (ESA), Central Forest Spine (CFS) corridors) and conformity matrices for state/district adoption.
- **Pahang State Government (State Executive Council (EXCO), State Secretary) / State Planning Committee:** State adoption of ILMSP maps/overlays; issuance of state circulars to embed ILMSP controls into Pahang State Structure Plan and Local Plans for Raub/Lipis; inter-agency coordination and conflict resolution on land-use decisions.
- **Pahang State Forestry Department (JPNP) & Forestry Department Peninsular Malaysia (FDPM):** Lead for PRF management, restoration (Output 2.1), access control, and forest law enforcement; co-lead of joint patrols with PERHILITAN; co-proponent of Fraser’s Hill State Park gazette and working plans; technical sign-off for corridor restoration standards.
- **Perbadanan Taman Negeri Pahang (PTNP):** Park authority for Fraser’s Hill State Park (Output 1.2); park operations, permits, visitor management, and co-management agreements with IPLC; integration of patrols, monitoring, and revenue mechanisms for park sustainability.
- **Department of Wildlife & National Parks (PERHILITAN):** Wildlife corridor standards, joint SMART patrols and rapid response; licensing and investigations under the Wildlife Conservation Act; HWC protocols, telemetry/early warning, and training/appointment of community patrollers.
- **Department of Irrigation & Drainage (DID/JPS):** Adoption and enforcement support for river-reserve/riparian buffers; technical inputs to headwater protection, erosion control, and flood-safe designs; concurrence on ILMSP hydrology standards.
- **Department of Environment (DOE):** Environmental Impact Assessment (EIA) screening/scoping conformity with ILMSP overlays (ESA/CFS, riparian buffers); compliance monitoring and referrals; guidance on environmental quality standards for community enterprises (Component 2).
- **Attorney General’s Chambers (AGC) / State Legal Advisor & Prosecution Services:** Legal vetting of state park gazettes, co-management MoUs, and ILMSP statutory instruments; prosecution of cases referred from PERHILITAN/JPNP; advice on sanctions and evidence standards.

- **Department of Orang Asli Development (JAKOA):** the federal public agency mandated to support Orang Asli welfare and development, and the key government counterpart for coordinating engagement with Orang Asli communities (including facilitating consultations, supporting FPIC-aligned processes where applicable, and linking community priorities with district/state implementation arrangements).
- **IPLC institutions (community-based):** self-identified Orang Asli community governance and organizational structures (e.g., Tok Batin/traditional leadership, village committees such as JPKKOA, women and youth groups, community ranger groups, and any relevant cooperatives/CBOs), which will serve as the primary community decision-making and implementation partners for co-management, corridor stewardship, restoration, HWC response, and benefit-sharing arrangements (Components 1 and 2).
- **Malaysia Forest Fund (MFF):** Program owner for Forest Conservation Certificate (FCC) ; project registration, public registry, validation/verification, and milestone-based disbursements for IPLC-centred conservation finance (Output 1.3).
- **FRIM (Forest Research Institute Malaysia), Universities & Research Institutes:** Restoration prescriptions, nursery protocols, biodiversity and carbon MRV; co-development of training (ANR/enrichment, SMART/Measurement, Reporting, and Verification (MRV), Hazard Analysis and Critical Control Points (HACCP) for enterprises); data contribution to the National Biodiversity Center (NBC) Knowledge Hub.
- **Pahang State Agriculture Department / District Agriculture Offices:** support of sustainable community agroforestry & crop-switch enterprises, Integrated Pest Management (IPM), pesticide controls near riparian buffers.
- **TNB (Tenaga Nasional Berhad):** to ensure safe, compliant power for ELEFence (grid/PV interconnection, safety standards, inspections) while sharing utility-corridor data to align ILMSP zoning and access controls.
- **District & Local Authorities (Raub, Lipis) / Land & Mines Office / JUPEM (Department of Survey and Mapping Malaysia):** Local Plan/RKK variations and development control; boundary demarcation and signage; cadastral inputs for park and corridor delineation; permitting aligned to ILMSP overlays.
- **Royal Malaysia Police (PDRM) & other enforcement:** Joint operations support for high-risk enforcement actions; checkpoints and investigations where inter-agency coordination is required.
- **Private Sector & Industry Associations** (tourism operators, homestay groups, plantations/smallholders, eco-products/retailers, hydropower and infrastructure operators): Compliance with ILMSP overlays and ESA/CFS conditions; co-financing for restoration and ELEFence; market access for nature-positive enterprises (Component 3); adoption of HWC-smart and wildlife-friendly standards.
- **Civil Society & NGOs** (e.g., Malaysian Conservation Alliance for Tigers (MYCAT), Tiger Protection Society of Malaysia (RIMAU), WWF-Malaysia, Malaysian Nature Society, local CBOs): Community facilitation for FPIC and co-management; volunteer patrols and snare removal; conflict mediation; independent monitoring; design and delivery of awareness (Component 4) and enterprise mentoring (Component 3).
- **Replication Partner States** (e.g., Perak, Selangor, Kelantan or others confirmed during PPG): Uptake of ILMSP methods and community co-management through NBC's Knowledge Hub; participation in replication clinics and MoUs for scale-out (Component 4).

IPLC participation has been integrated into the project from the PIF stage. During PIF development, the project team held consultations with Pahang state agencies and federal counterparts together with IPLC representatives, including Tok Batin (Orang Asli traditional leaders/elders) and community representatives from Lipis and Raub districts (13–15 November 2025). These consultations confirmed the relevance of the project's focus on corridor integrity, human–wildlife conflict, enforcement against snaring/encroachment, and livelihood pathways linked to stewardship responsibilities. The project design reflects this input by structuring delivery around IPLC-led gforest restoration teams, IPLC-governed coexistence and HWC response, and co-management models for community conserved areas and joint patrol operations.

At the PPG stage, the project will prepare a **Stakeholder Engagement Plan** detailing roles, engagement modalities, gender and disability inclusion (≥50% women in training/consultations; targeted youth and vulnerable-group measures), FPIC protocols (with documented consent and grievance pathways), disclosure timelines, and feedback loops. Stakeholder empowerment will be anchored in: (i) shared decision-making (state–federal technical committees; village co-management committees); (ii) practical capacity (tiered training for agencies and IPLCs on ILMSP application, restoration/HWC/patrol SOPs, and enterprise skills); (iii) economic incentives (predictable FCC-linked benefit flows and nature-positive enterprise revenues); and (iv) transparent accountability (SMART and ILMSP dashboards, park/finance bulletins, and an accessible GRM). This coalition enables enforceable planning, effective on-ground protection, and durable community benefits—while creating a clear pathway for replication in at least two additional Peninsular Malaysia states.

For activities that may affect Orang Asli communities (as rights-holders), the project will apply Free, Prior and Informed Consent (FPIC) using self-identified community decision-making structures and processes, rather than externally imposed mechanisms. In practice, this means engagement will be organized through community-recognized governance arrangements (including Tok Batin-led processes, village committees and designated representatives), complemented by inclusive participation of women, youth, and other groups to ensure decisions reflect community-wide perspectives. FPIC will be applied to all relevant interventions, including participatory mapping and formalization of IPLC-governed conservation areas (e.g., riparian/headwater protection zones, adat/sacred groves, and “no-snare” corridor zones), negotiation of state–IPLC co-management agreements and community rules that may affect access/use, design and implementation of the FCC mechanism and its benefit-sharing arrangements, and community roles in patrolling and monitoring. FPIC will be documented and auditable, including disclosure of information in accessible formats, recorded consent decisions (including separate meetings as needed), clear benefit-sharing terms, and accessible grievance redress channels. The project will operationalize this through a dedicated IPLC Co-management & FPIC Plan (FPIC step-by-step guidance, template co-management MoUs, grievance and safeguarding notes) and through the Stakeholder Engagement Plan to be completed during the PPG phase.

IPLC institutions will be identified through self-identification and FPIC-aligned processes during PPG, not through external nomination. In practice, this will be done through: community mapping and verification of recognized governance structures (e.g., Tok Batin/traditional leadership, village committees such as JPKKOA, women/youth groups, and any relevant CBOs/cooperatives) facilitated with JAKOA’s field presence and independent facilitation where appropriate; open community assemblies in each participating community to confirm legitimate representatives, decision rules, and mandates; and documented community resolutions/minutes confirming who represents the community for each activity stream (co-management, FCC benefit-sharing, restoration crews, patrols, enterprise governance).

Knowledge

Generating, curating, and using knowledge is central to operationalizing the ILM approach in Malaysia. Under Component 4 and with linkages to Components 1–3, the project will develop and disseminate bilingual (Bahasa Malaysia/English) knowledge materials anchored in the National Biodiversity Centre (NBC) ILM Knowledge Hub. The project will capture lessons from ILM Spatial Plan (ILMSP) preparation and statutory integration, Fraser’s Hill State Park gazettement/operations, IPLC co-management and FPIC, restoration/ANR delivery, HWC coexistence systems, joint SMART patrols and encroachment control, and nature-positive enterprise development. These lessons will be fed back into practice through short learning cycles (quarterly lessons learning sessions, after-action reviews), plain language products and micro-modules designed for broad accessibility, including in remote or low-connectivity contexts. The project will produce the following core knowledge products (curated in the Hub with version control, metadata, and open download formats where appropriate):

- **Planning & Statutory Integration Toolkit:** ILMSP and its conformity matrices to NPP/SSP; model Rancangan Kawasan Khas (RKK) overlays (ESA/CFS, riparian buffers); Local Plan variation clauses; wildlife-friendly road and riparian standards; EIA scoping notes keyed to ILMSP overlays.
- **State Park Operations Package:** Gazettement checklists; park management plan template; visitor management and fee reinvestment SOPs; staffing models; biodiversity monitoring protocols; park–community co-management MoU templates.
- **Corridor Restoration & ANR Field Toolkit:** Site selection and demarcation SOPs; ANR tending cycles; enrichment species lists (montane/lowland); invasive control; restoration QA forms; maintenance schedules; integration with SMART patrol blocks.
- **HWC Coexistence Package:** Design drawings and BoQs for **ELFence** (3–4 strand, solar, earthing, gates); O&M and safety SOPs; telemetry/geofencing alert set-up; community response group SOPs; incident logging forms; humane deterrence guidelines; fencing governance/finance templates.
- **Patrol & Enforcement Toolkit:** SMART set-up and patrol planning guides; snare detection/removal SOPs; evidence handling and chain-of-custody forms; drone/drone-free reconnaissance checklists; GLAD/RADD/Sentinel alert template; encroachment casework pathways and restoration handover forms; monthly patrolling dashboard templates.
- **IPLC Co-management & FPIC Toolkit:** FPIC step-by-step manual; co-management MoU templates; IPLC-governed conservation area rules (riparian no-take, no-snare zones, adat/sacred groves); grievance redress and safeguarding notes; gender/youth inclusion guidance.
- **FCC/FCO Project Package:** Malaysia Forest Fund FCC primers; project registration roadmap; MRV and verification-ready data sheets; benefit-sharing plan templates; fiduciary/reporting checklists; sample board/committee TORs.
- **Nature-Positive Enterprise Playbook:** Business-model blueprints for eco-tourism, agroforestry, honey/NTFPs, handicrafts, sustainable fish farming; food safety basics; branding/packaging guides; digital sales starter kit; co-op governance templates.

- **Case Studies & Lessons Learnt:** Documented restorations, patrol operations, HWC interventions, ELEFence deployments, and enterprise launches with lessons on effectiveness, cost, risks, and gender/IPLC participation for continuous improvement.
- **Awareness & Communications Package:** Culturally tailored materials for communities, officials, and private sector—FAQs, myth-busters, WhatsApp/radio scripts, corridor-safe development briefs, and media kits aligned to Output 4.1 campaigns.
- **Training Curricula & Micro-Modules:** Slide decks, facilitator guides, and short e-learning (offline-capable) for planners, PERHILITAN/JPNP/PTNP staff, JAKOA/community rangers, district officers, enterprise groups; includes Training-of-Trainers (ToT) bundles.
- **Spatial & Data Catalog:** Curated corridor maps, ILMSP overlays, riparian layers, patrol heat-maps, restoration polygons, and indicator datasets with metadata; API/downloads for state partners and universities.

The project will apply the following knowledge sharing and visibility mechanisms tailored to the ILM approach:

- **Local Workshops & Hands-On Trainings:** On-site sessions in Ulu Jelai–Fraser’s Hill villages and district hubs (Raub/Lipis), co-facilitated by PTNP/PERHILITAN/JPNP, to practice ILM tools in real settings: FPIC & co-management MoUs, ELEFence O&M, SMART patrol setup, ANR/enrichment planting, river reserve (DID) demarcation, and ILMSP -RKK/Local Plan overlays.
- **District & State Decision-Maker Roundtables:** Quarterly briefings with State Planning Committee, District/Land Offices, and sector agencies to review corridor maps, encroachment and HWC dashboards, approve remedial actions, and align permits/EIAs with ILM overlays.
- **National Webinars & Peer Exchanges:** Regular virtual sessions convened by NBC for federal and state agencies, JAKOA, academia, and private sector (tourism, plantations, infrastructure) on ILMSP integration, OECM/IPLC governance, HWC packages, FCC finance, and M&E of corridor safety.
- **Replication Workshops for Other States:** Structured “how-to” workshops hosted by NBC for at least two Peninsular states (e.g., Perak, Selangor/Kelantan): step-by-step ILMSP conformity matrices, template RKK overlays, ELEFence/patrol SOPs, and co-management agreements paired with MoUs for uptake.
- **Field Learning Exchanges & Twinning:** Study visits and joint patrol/restoration/HWC management practicums with peer landscapes (e.g., Sungai Yu, Royal Belum interface) to observe patrol briefings, ANR plots, telemetry alerts, and park operations; exchange after-action notes and cost sheets.
- **Private-Sector Dialogues & Supplier Academies:** Targeted sessions with hotels/eco-lodges, smallholders, and estates on corridor-safe design (roads/fencing/lighting), HWC-smart production, and nature-positive procurement; packaging/branding labs for community products.
- **International Outreach (IUCN/WWF/CBD/ASEAN):** Showcasing Malaysia’s ILM model at IUCN WCPA/Asia Protected Areas Congress, CBD GBF side-events, and ASEAN/APAP forums; sharing open toolkits and inviting reciprocal reviews.
- **ILM Knowledge Hub (NBC):** Open repository of toolkits, SOPs, e-learning, story maps, and curated spatial datasets (corridors, riparian buffers, patrol heatmaps) with API/downloads and offline packs (USB/print) for low-connectivity sites.
- **Communications & Media Package:** Plain-language briefs, myth-busters, FAQs, WhatsApp/radio scripts, photo/video reels, press kits, and social posts highlighting restored hectares, HWC reductions, snare removals and women-led enterprises.

Project contribution to policy coherence

This project is intentionally designed to strengthen policy coherence across sectors, levels of government, and time horizons so that GEBs created in the Ulu Jelai–Fraser’s Hill watershed are durable, scalable, and not undermined by conflicting rules or incentives. Consistent with STAP guidance, the project (i) fosters synergies across economic, social, and environmental policies and manages trade-offs, and (ii) reduces negative spillovers/leakage that could erode outcomes once achieved.

Horizontal coherence (across sectors): Component 1 hardwires biodiversity outcomes into statutory land-use systems via an adopted ILM Spatial Plan (ILMSP), making ecological corridors, riparian/headwater buffers, and the Fraser’s Hill State Park binding overlays for state/district planning, EIA scoping, forestry, wildlife, roads, and tourism permitting. Components 2–3 align wildlife management, restoration, agriculture and rural enterprise with practical conservation and sustainable development measures by different agencies under stewardship MoUs with ILPCs. Component 4 institutionalizes cross-sector learning through a National Biodiversity Centre Knowledge Hub, ensuring new SOPs/toolkits are standardized and reused.

Vertical coherence (federal–state–district–community): The project’s governance architecture connects federal policy custodians (NRES/NBC, PLANMalaysia, PERHILITAN, FDPM, DOE, DID) with the Pahang State Executive/Planning Committee, PTNP/State Forestry, district councils (Raub/Lipis), and IPLC institutions (JAKOA, village committees). ILMSP conformity matrices and state

circulars ensure state and district plans reflect national ESA/CFS priorities; co-management agreements with IPLCs give operational effect on the ground (riparian “no-take”, zero-snare community zones, O&M for HWC systems). This implements STAP’s emphasis on coherence across levels of governance so projects are not undone “in the next valley” by misaligned decisions.

Contribution to country and global agendas: By aligning PA expansion, OECM-style IPLC conservation, restoration, and green livelihoods with statutory planning and dedicated finance, the project advances Malaysia’s biodiversity commitments while operationalizing STAP’s two core policy-coherence objectives: (1) mobilizing and aligning finance around integrated solutions; and (2) ensuring durability by minimizing incoherence, spillovers, and leakage. It creates a coherent, enforceable model in Pahang and a national replication pathway that the GEF can scale to accelerate GEB delivery at lower cost and higher certainty.

Innovativeness, Potential for Transformation and Scaling Up

The project introduces several **innovative and transformative approaches** to the Ulu Jelai–Fraser’s Hill landscape. Instead of isolated activities, the project rewires the rules, money flows, and operating routines that shape land-use, enforcement, and livelihoods. That’s the essence of being transformative: durable legal overlays, verified finance, system-level coexistence and enforcement, fast/cheap restoration, market-backed community prosperity, and a national pathway to scale. These models are the following:

- **ILM Spatial Plan as a statutory overlay:** turns wildlife habitat, corridors, riparian/slope buffers, and ESA rules into legally binding layers in state/district plans and EIAs shifting from ad-hoc “best practice” to enforceable, day-to-day decision rules that stop habitat fragmentation and ensure restoration of valuable forest ecosystems.
- **IPLC fast-track conservation via FPIC co-management MoUs (OECM-style) and FCC performance finance:** creates a practical path to legally recognized community conservation now (while policy reforms still evolve), and ties verified patrol/restoration results to predictable payments via FCC mechanism moving IPLC stewardship from project-dependent to performance-funded and durable.
- **End-to-end human–wildlife coexistence system:** replaces reactive and expensive wildlife translocations with a designed, budgeted co-existence system that can cut conflicts and keep them down transforming HWC from a chronic crisis into a manageable public-safety function.
- **Data-led snare- and encroachment-free landscape operations:** fuses technology, community rangers, and prosecution pathways into one operating rhythm driving sustained drops in snares/encroachment and making enforcement targeted and scalable.
- **ANR-based corridor restoration:** prioritizes ANR with selective enrichment only where gaps persist and achieves faster canopy closure at a fraction of nursery-planting costs, so thousands of hectares become feasible for restoration.
- **Green MSMEs:** every enterprise operates under a stewardship MoU (zero-snare, riparian buffers, HWC-smart production); revenue depends on compliance and prosperity becomes the enforcement mechanism.

The ILM project is designed as a **replicable, “plug-and-play” model** that other Malaysian states (and peer landscapes abroad) can adopt quickly: it packages statutory tools (ILM Spatial Plan overlays, EIA conformity checklists), co-management instruments (FPIC-based IPLC stewardship MoUs/OECM-style rules), and operating SOPs (ANR-first corridor restoration, ELEFence + telemetry coexistence, SMART patrol blocks) into ready-to-use templates hosted by the National Biodiversity Centre’s Knowledge Hub. Financing is likewise portable: the FCC performance payment architecture, State Park fees, ecotourism and small green enterprises provide durable funding beyond GEF grant. Because these instruments align with national GBF targets and common governance realities (state forest reserves, district plans, protected-area upgrades), they can be replicated across Peninsular Malaysia (e.g., Perak, Selangor, Kelantan) and adapted internationally to similar rainforest corridor contexts in ASEAN and other tropical regions, with minimal localization limited to legal citations, species mixes, and utility/market partners.

Project’s expected national-level impact

Beyond serving as a model for replication in other states of Malaysia, the project will generate important systemic national benefits for Malaysia by strengthening how biodiversity conservation is integrated into development planning, protected area management, and community-based stewardship. First, the project will demonstrate a workable mechanism for aligning state-level land-use planning, federal biodiversity policy, wildlife management, and IPLC participation within one operational Integrated Landscape Management framework. This is significant at national level because one of the key barriers in Malaysia is not only the absence of good local planning practices, but the lack of effective institutional mechanisms to connect conservation, spatial planning, enforcement, and livelihood development across sectors. By operationalizing the ILM Spatial Plan, Fraser’s Hill State Park gazettement, IPLC-governed conservation areas, and FCC-linked financing within one landscape, the project will provide Malaysia

with a tested framework and models for improving policy coherence between the National Policy on Biological Diversity, the Central Forest Spine agenda, forestry and wildlife management systems, and national climate commitments. This contributes to stronger national implementation capacity for the GBF, especially Targets 1, 2, 3, 4, and 22, while also strengthening the practical integration of biodiversity into subnational planning and decision-making.

Second, the project will strengthen national institutions, systems, and knowledge infrastructure that will remain relevant even beyond the project geography. The establishment of the ILM Knowledge Hub at the National Biodiversity Centre, together with new tools, SOPs, co-management templates, restoration protocols, HWC management systems, and biodiversity-finance experience, will improve Malaysia's national capacity to design and manage future integrated biodiversity landscapes. The project will also generate nationally relevant evidence on the use of IPLC-centered conservation finance, corridor restoration, anti-snaring operations, and coexistence systems for large mammals (mainly endangered species), all of which are priority issues for Peninsular Malaysia. In this way, the project's impact goes beyond simple replication of activities: it will help shape national standards, institutional practice, and financing approaches for biodiversity conservation, while reinforcing Malaysia's credibility in delivering on international biodiversity and climate commitments through an approach that links conservation outcomes with social inclusion, watershed protection, and long-term sustainable development.

Sustainability and Exit Strategy

The project's exit strategy will ensure that GEB gains and corridor functionality persist beyond the GEF grant by embedding outcomes in (a) durable legal and planning instruments, (b) permanent institutional mandates and operational systems, (c) a blended, risk-managed financing model that supports recurrent costs for IPLC-led Conservation Areas (CAs), patrolling, and human-wildlife conflict (HWC) management, and (d) establishment of IPLC nature-positive enterprises:

Institutional and legal sustainability: The project will lock in sustainable conservation outcomes through: (a) gazettment and operationalization of Fraser's Hill State Park as a higher-protection legal category with enforceable rules, staffing arrangements, and a management plan; and (b) adoption of the Integrated Landscape Management (ILM) Spatial Plan, which integrates corridor zoning, headwater/riparian buffers, slope controls, and no-go prescriptions into statutory planning instruments. These measures reduce "paper protection" risk across the forest reserve mosaic and ensure that corridor integrity is maintained through enforceable planning decisions rather than time-bound project activities.

Operational sustainability: Core operational functions will be institutionalized through formal mandates and SOPs: (a) SMART-enabled enforcement and joint patrol planning (State Forestry Department and PERHILITAN, with IPLC/community ranger participation through formal agreements); (b) restoration maintenance and corridor monitoring (IPLC restoration teams and community rangers linked to agency technical oversight); and (c) HWC early warning/response and coexistence operations (community response groups coordinated with PERHILITAN and relevant district/state mechanisms). The project will finance the enabling systems (training-of-trainers, SOPs, equipment, data systems, and co-management arrangements) so that post-project operations can be absorbed into routine agency workplans and budget cycles.

Financial sustainability and exit financing: Long-term financing will combine three complementary streams to cover recurring costs for CA stewardship, patrol operations, ecosystem restoration, and HWC management:

- 1) *Public recurrent financing for statutory functions:* After project closure, baseline state/federal budget lines will continue to fund Fraser's Hill State Park, forest management, and wildlife enforcement functions. The project will increase the efficiency and targeting of these budgets through the ILM Spatial Plan and State Park management plan (clear zoning, patrol prioritization, monitoring protocols, and HWC response procedures), reducing future reliance on ad hoc project funding;
- 2) *Results-based conservation finance via FCC (performance payments for stewardship):* The project will operationalize an IPLC-centered Forest Conservation Certificate (FCC) mechanism to generate predictable, performance-linked conservation finance. FCC revenues will be transparently reinvested into: IPLC CA stewardship costs (community governance, boundary/buffer upkeep, restoration maintenance); community ranger stipends and patrol logistics; and HWC coexistence operations (maintenance of measures, early warning O&M, response readiness). Payments will be triggered by verified delivery of agreed conservation outcomes and co-benefits, creating a durable incentive system that outlasts the GEF grant and directly supports corridor integrity and threat reduction;
- 3) *Long-term partnership financing with NGOs and corporate philanthropy:* The project will formalize cooperation with NGOs and conservation partners already active in the wider Central Forest Spine and habitat corridor

protection ecosystem, including those supporting community rangers, anti-snaring operations, and corridor restoration. This partnership pipeline will be used to co-finance patrol operations and equipment refresh cycles, maintain community ranger programs and skills over time, and sustain targeted HWC mitigation (e.g., fence maintenance, community response groups, local early warning systems); and support forest restoration. In parallel, the project will engage Malaysia's corporate philanthropy and foundation ecosystem to secure multi-year support for IPLC-led conservation operations, linked to transparent performance indicators and governance safeguards. These external partnerships will be structured as co-financing agreements that complement (not replace) government mandates and FCC performance finance.

Sustainability of IPLC livelihoods and enterprises: Livelihood and enterprise support under Output 2.4 will be designed to reinforce stewardship incentives and household resilience, but it is not the project's primary driver of GEBs. To ensure sustainability and manage risk, enterprises will be supported through a phased pilot-to-scale approach, basic market due diligence, governance safeguards to prevent capture, and stewardship conditionalities (e.g., "no-snare" commitments, corridor restoration responsibilities, HWC-smart production). Where enterprise performance is weak, the project will prioritize alternative, lower-risk benefit streams that directly reinforce corridor integrity (e.g., paid ranger/restoration roles and FCC performance payments).

Governance safeguards and adaptive exit management: Sustainability arrangements will be stress-tested through annual work planning and the Mid-Term Review. The project will apply FPIC-aligned engagement for Orang Asli communities and inclusive engagement for other local communities, with accessible grievance channels and periodic social monitoring to detect and correct risks of elite capture or inequitable benefit-sharing. "Go/no-go/redirect" rules will be used to adjust enterprise support and to ensure that financing continues to prioritize core ecological integrity functions (protection, restoration maintenance, and HWC management).

Gender Equality and Empowerment

The project mainstreams gender equality and women's empowerment across all components by pairing clear targets with practical enablers and safeguards. At minimum, ≥50% of participants in all trainings, consultations, and paid field activities (ANR crews, patrol support, HWC committees) will be women, with ≥40% of community MSMEs women-led and ≥40% women's representation in landscape governance bodies (village stewardship committees, park/community co-management groups). To remove structural barriers, activities will budget for childcare/eldercare, safe and convenient venues/hours, travel stipends, and provision tailored to women; digital skills, leadership, enterprise, and financial-literacy modules will be delivered for women and youth, with facilitated access to accounts, and offtake agreements. FPIC processes will be gender-responsive (separate women's meetings, informed consent recorded), pay will be equal for equal work, and procurement will favor women-led suppliers where feasible. A survivor-centered GBV/SEA/SH protocol, confidential grievance redress mechanism, and referral pathways will be in place, while all indicators will be sex-disaggregated and tracked via a resourced Gender Action Plan aligned with UNDP SES and national policy. By linking income gains to stewardship MoUs (zero snare, riparian no-take, HWC-smart production) and positioning women as decision-makers and paid implementers, the project transforms conservation from an added burden into a source of agency, safety, and nature-positive prosperity for IPLC women and girls.

During the **PPG phase**, a full **Gender Analysis** will be undertaken, and a **Gender Action Plan (GAP)** will be prepared in line with the **UNDP Gender Equality Strategy**. At **CEO Endorsement**, the GAP findings will be **integrated across project components, outputs, and activities**, with a dedicated **indicative budget** for gender-responsive actions (e.g., leadership training, women's livelihood support, participation in decision-making). Under **M&E**, both the **Midterm Review (MTR)** and **Terminal Evaluation (TE)** will explicitly report on **gender-disaggregated results** and progress in GAP implementation, as highlighted in the indicative project overview. Further, as per UNDP Policy, 15% of the resources of the project's budget will be allocated to advance gender equality and women's empowerment.

Private Sector Role

The private sector will be a core delivery partner and co-financier of the ILM project, with roles tailored by industry. Tourism operators and hotel groups commit to corridor-safe development (ILMSP overlay compliance, low-impact design, road-ecology measures), co-finance trail and visitor management and sponsor joint patrols and HWC systems at hotspots; in return, they gain branding, concessions, and access to certified nature-based experiences. Agri-businesses and smallholders will adopt zero-deforestation and HWC-smart production, co-invest in riparian buffers and ANR restoration, and participate in buyer programs that reward compliance with premium pricing and offtake MOUs. Utilities and water companies (and other large users) will underwrite FCC performance payments earmarked for patrols, restoration, and fence O&M, while logistics/retail partners open market access for IPLC MSMEs and amplify nature-positive procurement. Tech providers will supply telemetry, camera traps, drones, and SMART analytics through discounted licenses and data-sharing agreements. Banks and impact investors will blend concessional loans with guarantees for IPLC

enterprise scale-up, using the project’s stewardship MoUs as risk mitigants. All private partners will receive recognition via the NBC Knowledge Hub creating a repeatable, investable model that ties profitability to biodiversity outcomes.

[1] scribd.com

[2] **Stafford Smith, M., & Metternicht, G. (2022).** *Refining the tracking of co-benefits in future GEF investments: A STAP Information Brief.* Scientific and Technical Advisory Panel (STAP) to the Global Environment Facility (GEF), Washington, DC. Available at: <https://stapgef.org>

[3] bernama.com

[4] scribd.com

[5] worldwildlife.org

[6] travel.ourbetterworld.org

[7] travel.ourbetterworld.org

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

No

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

The project will be implemented in strong coordination and collaboration with other relevant programs and projects in the country and abroad to ensure (1) Resource Optimization, including funding, expertise, and manpower, to avoid duplication of efforts and obtain co-financing; (2) Knowledge and Experience Sharing to enhance the effectiveness of each project, leading to more innovative and well-rounded solutions; and (3) Synergy in objectives to amplify their impact, making it easier to achieve these shared objectives on a larger scale. Specifically, the project will directly collaborate with the following initiatives:

Other initiatives	Objective	Areas of collaboration with Malaysia ILM project
UNDP/GEF Project “Building institutional and local capacities to reduce wildlife crime and to enhance protection of iconic wildlife in Malaysia”, GEF ID: 10597, 2022-2027	Enhance protection of three iconic wildlife species (Malayan tiger in Peninsular Malaysia, Bornean orangutan in Sarawak, and Bornean banteng in Sabah) by reducing poaching and illegal wildlife trade, improving conservation area management, and engaging communities in protecting habitats	Anti-poaching & HWC: Joint efforts in wildlife law enforcement (patrols, snare removal) and human-wildlife conflict mitigation. Community engagement: Collaboration on involving IPLCs as partners in conservation (e.g. community ranger programs). Knowledge sharing: Exchange of best practices on wildlife crime prevention, community-based monitoring, and innovative technologies for wildlife protection
P&G Partners with WWF-Malaysia to Protect the Malayan Tiger and its Habitat (within WWF-Malaysia’s Living Landscapes work in the Central Forest Spine), 2021-2025 with potential continuation in 2025-2030	Protect and restore the Central Forest Spine (CFS) forests (key tiger habitats) while enhancing local livelihoods, through an integrated “Protect-Produce-Restore” landscape approach. This includes securing wildlife corridors for Malayan tigers, reducing poaching, promoting sustainable palm oil production, and rehabilitating degraded forest patches	Landscape planning: Complements IMP’s landscape spatial planning by focusing on connectivity in the CFS (the same ecological network). Wildlife corridors & anti-poaching: Coordinates on establishing corridors and conducting joint community ranger patrols to remove snares and curb poaching. Sustainable livelihoods: Shares experience in working with local communities on sustainable agriculture (e.g., RSPO-certified palm oil) and alternative incomes tied to conservation. Habitat restoration: Collaborates on

Other initiatives	Objective	Areas of collaboration with Malaysia ILM project
		native species replanting and ecological restoration techniques for degraded forest areas.
UNDP/GEF Project “Integrated Landscape Management of Heart of Borneo landscapes in Sabah and Sarawak” (GEF ID 10237), 2021-2027	Facilitate sustainable land use in Sabah and Sarawak by integrating biodiversity conservation with commodity production. The project develops integrated landscape management systems with multi-stakeholder participation, promotes deforestation-free certified palm oil supply chains, and conserves/restores forests in key areas of the Heart of Borneo	Spatial planning: Provides lessons for ILM on participatory land-use planning that balances conservation and development goals across large landscapes. Community & private-sector engagement: Both projects can collaborate on engaging plantation companies and local communities to adopt sustainable practices (NDPE – No Deforestation, No Peat, No Exploitation) and protect riparian reserves and high conservation value forests. Restoration: Shares strategies for rehabilitating degraded lands via public-private-community partnerships, complementing ILM’s forest corridor restoration component.
Kuamut Rainforest Conservation Project (Sabah) (PPP between Permian Malaysia, Sabah Forestry Department, Rakyat Berjaya sdn. Bhd. Yayasan Sabah, with operational support from PACOS Trust and South East Asia Rainforest Research Partnership (SEARRP)), 2015-2045	Public-private partnership protecting 83,381 ha of tropical forest in Sabah’s Kuamut region as a forest carbon offset project. Aims to avoid planned deforestation and allow forest regeneration, yielding ~800,000 tCO ₂ e in verified carbon credits yearly, while safeguarding biodiversity (elephants, orangutans, etc.) and providing community benefits	Carbon financing & policy: Complements ILM’s goal of developing a FCC project by sharing experience in revenue for conservation. Community benefits: Both focus on IPLC involvement – Kuamut’s benefit-sharing and livelihood programs for local villages align with ILM’s community enterprise and benefit mechanisms. Protected area management: Collaboration in best practices to reclassify and manage forests for strict protection (Kuamut succeeded in upgrading logged forests to Class I protected status, mirroring ILM’s aim to gazette Fraser’s Hill State Park).
Johor Wildlife Crossing (FT50 Highway) Project, 2025–2028	A state-led initiative (RM66 million) to construct Johor’s first dedicated wildlife crossing by 2028. It involves a 8-meter-high, 200-m viaduct underpass along the Kahang–Mersing road (FT50) to reconnect fragmented forests of the Central Forest Spine, allowing safe passage for Malayan tigers, elephants, tapirs and other wildlife. Improves motorist safety and genetic connectivity of wildlife populations.	Wildlife corridor connectivity: Supports the same vision as ILM’s wildlife corridor component – physical reconnection of habitats. ILM can learn from this engineering solution to address fragmentation in other critical road segments. Human-wildlife conflict prevention: By preventing vehicle collisions with animals, it addresses a form of human-wildlife conflict; ILM’s HWC management can expand to include advocacy for wildlife-friendly infrastructure. Policy model: Johor’s project serves as a model for other states, Pahang (Ulu Jelai–Fraser’s Hill) could collaborate with authorities to design similar eco-crossings on roads bisecting its forests, complementing ILM’s spatial plan for safe wildlife movement

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
70000	0	0	0

Indicator 1.1 Terrestrial Protected Areas Newly created

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
70000	0	0	0

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
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Fraser's Hill State Park	000000	Protected area with sustainable use of natural resources	70,000.00			
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Indicator 1.2 Terrestrial Protected Areas Under improved Management effectiveness

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0	0	0	0

Name of the Protected Area	WDP A ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)

Indicator 3 Area of land and ecosystems under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
7500	0	0	0

Indicator 3.1 Area of degraded agricultural lands under restoration

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.2 Area of forest and forest land under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
7,500.00			

Indicator 3.3 Area of natural grass and woodland under restoration

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.4 Area of wetlands (including estuaries, mangroves) under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0	0	0	0

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.4 Area of High Conservation Value or other forest loss avoided

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
FCO/FCC Project	0000000	20,000.00			
IPLC-governed Conservation areas	000000	5,000.00			

Documents (Document(s) that justifies the HCVF)

Title

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)	2133993	0	0	0
Expected metric tons of CO₂e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)	2,133,993			
Expected metric tons of CO₂e (indirect)				
Anticipated start year of accounting	2027			
Duration of accounting	20			

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
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Expected metric tons of CO ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	1,750			
Male	1,750			
Total	3,500	0	0	0

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

CI 1. Terrestrial protected areas created: the project plans to establish the Fraser's Hill State Park to protect >=70,000 ha of tropical forest ecosystems (GEF CI 1.1);

CI 3. Area of land restored: the project will restore >=7,500 ha of selectively logged/degraded forest in the Sungai Yu-Ulu Jelai wildlife corridor, the Fraser's Hill core & periphery within Batu Talam FR/the proposed Fraser's Hill State Park, and the Hulu Lemoi-Bukit Bujang linkage using Assisted Natural Regeneration (ANR) and targeted enrichment planting (GEF CI 3.2).

CI 4. Area of landscapes under improved practices (excluding protected areas): the project will launch an ILPC-based Forest Conservation Certificate (FCC) Project covering ~20,000 ha of tropical forest and establish ~5,000 ha of IPLC-governed OECM-like Conservation Areas, including (i) riparian and headwater protection zones – stretches of riverbanks and upland watersheds safeguarded by communities to preserve water quality and flow; (ii) sacred groves and adat (customary) forests – patches of forest that hold cultural or spiritual significance (e.g., ancestral burial sites, ritual gathering places) which communities agree to protect from disturbance; and (iii) wildlife corridor and “no-snare” zones – strips of land or forest linking larger habitat blocks where communities voluntarily prohibit hunting and trapping (GEF CI .

CI 6. Greenhouse Gas Emissions Mitigated: >=2,133,993 tCO₂e in reduced/removed GHG emission over 20 years period achieved through decreased deforestation rate and forest restoration (GEF CI 6.5). Following parameters were applied for the FAO EX-ACT: climate = tropical moist and soil = Low Activity Clay, no fire in clearing. Business as Usual (BAU) vs project scenario was assumed like these: Component 1 (avoided deforestation): BAU gradually converts 1,472.5 ha out of 95,000 ha (planned area of Frazer State

Park, IPLC Conservation Areas, and FCC project) of forest over 5 years ($\approx 0.31\%/yr$ assumed deforestation rate in Pahang) to mainly cropland (perennial/annual mix); with the project forest cover loss is assumed to be $0.15\%/ha$ with total conversion for 5 years of 712.5 ha. Output 1.1 reduces conversion risk by embedding no-go areas, wildlife corridors, and riparian/headwater protection into adopted spatial plans and statutory planning instruments. Output 1.2 further reduces risk by gazetting Fraser’s Hill State Park and placing core forest areas under stronger legal protection and operational management, including regular patrolling. Output 1.3 introduces FCC-based conservation finance that creates performance-linked incentives and resources for forest stewardship rather than conversion. Output 1.4 strengthens IPLC governance and protection of key forest areas, especially corridor and riparian zones vulnerable to gradual encroachment. Component 2 (forest restoration): BAU leaves 7,500 ha degraded; project restores those 7,500 ha via ANR/enrichment during years 1–5 with continued regrowth through year 20 (applied 5.1 Forest Degradation and Management Module with large level of degradation under BAU and moderate under project scenario)

CI 11. People directly benefiting from the GEF investment: at least 3,500 people (50% women), including at least 3,000 IPLCs in the project area (GEF CI 11), including people in villages protected by elephant-proof fencing & early-warning, those in no-snare community zones, and community rangers involved in SMART patrols (reduced crop loss, reduced risk, new paid ranger roles); community enterprise founders/workers, co-op members, and trainees who complete business/food safety/branding modules; IPLC members with formal stewardship MoUs (rights/roles secured) and officials/community reps who complete applied training that leads to operational changes (e.g., ILM Spatial Plan adoption, park ops). The number of beneficiaries will be revisited and linked to specific project activities at the PPG stage.

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Substantial	<p>Key Climate hazards relevant to the Ulu Jelai–Fraser’s Hill ILM project include more intense rainfall, flash floods and landslides, hotter/drier spells, and episodic haze. These events can damage corridor and riparian restorations, elephant-proof fencing and telemetry, impede SMART patrol access, and interrupt power for solar hubs delaying restoration targets, HWC reductions, and enterprise roll-out.</p> <p>Mitigation Strategies: integrate landslide/flood susceptibility and riparian buffers in the ILM Spatial Plan and Fraser’s Hill State Park management; schedule planting to climate-suitable windows and use ANR with mixed native species plus contouring/erosion controls; pair elephant-proof fencing with telemetry-based early warning and trained community response teams to manage climate-amplified HWC; keep patrol/field continuity through alternative routes, spares kits and rapid-repair contracts for fences/telemetry; site and mount solar PV above flood lines with basic surge/lightning protection and O&M training; use weather/hazard advisories to trigger work pauses and re-sequencing, capturing lessons via the Knowledge Hub and the project’s adaptive M&E (MTR/TE).</p>
Environmental and Social	Substantial	<p>Key Environment risks stem from corridor restoration, fencing/telemetry, and joint SMART patrols. Potential impacts include disturbance to sensitive habitats and riparian zones during ANR/enrichment, restricted access if siting is poor, increased HWC during works, and waste streams from batteries/PV and electronics. Social risks relate to IPLC rights and customary areas (including sacred/adat groves), potential access restrictions and associated economic displacement, equitable benefit sharing (women/poorer</p>

		<p>households), labor/OHS and SEA/SH during fieldworks, and grievances where land use or livelihood access changes as State Park/OECMs are operationalized. These could delay targets on gazettement, ecosystem restoration, HWC reduction (or lead to increase of HWC cases), and nature-positive enterprises. Mitigation Strategies: apply UNDP/GEF safeguards with a project-wide ESMF/ESMP and site-specific ESIA/ESMPs; an IPPF/IPP that will include guidance on the implementation of robust FPIC with IPLCs and participatory mapping/siting to avoid critical habitat and cultural heritage, with chance-find procedures documented; formalize stewardship MoUs/OECM co-management and clear benefit-sharing rules (gender-responsive, with GRM access $\geq 50\%$ awareness target); require contractor ESHS standards, OHS training/PPE, Codes of Conduct and SEA/SH protocols; manage environmental legacies and project wastes with plans for battery/e-waste take-back and safe storage/disposal; integrate HWC-smart design (wildlife-friendly fencing layouts, telemetry early-warning, trained community response); and monitor E&S performance through the M&E system, adjusting Annual Work Plans and budgets as needed (AOP, MTR/TE).</p>
Political and Governance	Moderate	<p>Political & governance risks relate to multi-level approvals and coordination needed to adopt the ILM Spatial Plan, gazette & operationalize Fraser's Hill State Park, and recognize IPLC-governed OECMs. Changes in state/national priorities, slow gazettement steps, and overlapping mandates among NRES, Pahang State agencies (Forestry, land planning), PERHILITAN and local authorities may delay decisions, data-sharing, and enforcement for patrols/encroachment control affecting restoration, HWC reduction, and enterprise roll-out in the results chain. Mitigation Strategies: establish a high-level Steering Committee/Project Board with clear decision matrices and an approvals calendar for gazettement, OECM recognition, and spatial-plan adoption; conclude MoUs that define roles of Pahang Forestry/land offices, PERHILITAN, and IPLC institutions for co-management and enforcement; embed ILM provisions in state/district plans and SOPs to keep processes predictable; maintain transparency through dashboards and the Knowledge Hub, with quarterly reviews feeding adaptive management (AOP, MTR/TE); secure cross-party policy endorsements/letters where needed to reduce election-cycle shocks; and resource joint SMART-patrol and compliance functions to sustain enforcement despite staff turnover.</p>
INNOVATION		
Institutional and Policy	Substantial	<p>Key Institutional and Policy risks arise from introducing a ILM Spatial Plan to be formally adopted by state/national authorities, gazettement & operationalization of Fraser's Hill State Park, formal recognition of IPLC-governed OECMs, and an IPLC-based FCC/FCO mechanism plus new co-management and stewardship MoUs, joint SMART patrol protocols, and a national Knowledge Hub for replication. Unclear mandates, slow legal drafting/approvals, and uneven subnational uptake could delay plan adoption, gazettement steps, OECM recognition, and standardization of HWC-smart</p>

		<p>measures, slowing delivery on restoration, HWC reduction, and replication targets. Mitigation Strategies: complete an early policy/mandate gap analysis and approval roadmap; draft and socialize the ILM Spatial Plan with legal references for embedding into state/district plans; prepare gazettelement packages and SOPs for Fraser’s Hill State Park operations; pilot and document processes for OECM recognition and FCC/FCO with model MoUs/benefit-sharing rules; conclude inter-agency MoUs defining roles of NRES, Pahang Forestry/land offices, and PERHILITAN for co-management and enforcement; issue decision matrices and approvals calendars linked to Project Board oversight; stand up the Knowledge Hub to publish templates/SOPs and track replication; and run targeted capacity building for state/district planners, park managers, and IPLC institutions so new instruments are adopted and used consistently.</p>
Technological	Substantial	<p>Key Technological risks identified include: performance failures or downtime of elephant-proof electric fencing, ELEFence, and wildlife telemetry in rugged montane terrain; patchy connectivity interrupting SMART patrol data uploads and early-warning alerts; vendor lock-in and limited local spares/technicians; inadequate O&M skills leading to fence, sensor, or software malfunctions; e-waste and battery end-of-life challenges from telemetry; cyber/data quality risks (lost data, weak audit trails) undermining patrol evidence and HWC response. To mitigate these risks, the project will: phase pilots with clear KPIs before scaling; adopt vendor-agnostic specs, framework SLAs, and pre-positioned spares kits; configure offline-first SMART workflows with routine backups and simple data-security SOPs; harden field hardware (weatherproof housings, surge/lightning protection) and standardize O&M manuals with on-site operator training; contract e-waste/battery take-back; and track tech performance on the Knowledge Hub to iteratively refine standards.</p>
Financial and Business Model	Substantial	<p>Key Financial and Business Model risks identified include: slow/partial mobilization of co-finance against the project’s target envelope; capex escalation for elephant-proof fencing and telemetry that squeezes the grant envelope; fragile cashflows and market exposure for community nature-positive enterprises needed to deliver the income increase risking shortfalls in uptake and replication; underfunded life-cycle O&M (spares, batteries) for fences/telemetry leading to downtime; procurement/disbursement bottlenecks that delay ecosystem restoration and HWC measures; limited working capital and market access (especially for women-led ventures) dampening growth and resilience. To mitigate these risks, the project will: secure co-finance through signed MoUs/letters with tranche schedules and quarterly tracking; apply life-cycle costing with ring-fenced O&M lines and FX/price contingencies; use bundled lots and framework agreements/SLAs (with local spares buffers) to reduce capex and downtime; run an enterprise readiness program (market testing, unit economics, HACCP/branding/digital sales, co-op governance) and link IPLC ventures to concessional/impact finance or revolving funds; support a limited number of enterprises with staged</p>

		<p>expansion based on performance, avoiding over-reliance on a single product/value chain; focus on enterprise participation linked to stewardship commitments (e.g., “no-snare” zones, corridor restoration responsibilities, HWC-smart production), so incentives directly reinforce biodiversity outcomes; conduct pre-feasibility screening for selected enterprises (demand, competition, margins, logistics), buyer mapping/offtake discussions where feasible, and practical training (basic business planning, cooperative governance, quality control, food safety/HACCP basics where relevant); where feasible, complement enterprise income with results-based stewardship financing (e.g., FCC-linked revenue flows) and paid roles in restoration, monitoring, and patrolling, thereby reducing household reliance on any single enterprise; provide working-capital guidance tied to stewardship MoUs; use quarterly portfolio reviews to reallocate budgets and fix underperforming ventures; and leverage the Knowledge Hub to crowd in buyers/partners and replicate successful models in ≥ 2 additional states. For Output 2.4 mitigation will include mandatory pre-feasibility screening and market validation for all proposed enterprise models; phased incubation with performance milestones before scale-up; buyer mapping and early offtake engagement; governance screening to reduce elite capture and weak cooperative management; practical support for working capital planning and cash-flow management; and periodic portfolio reviews to discontinue or redesign non-viable enterprise models. This is intended to ensure that the project prioritizes fewer but more viable businesses, rather than pursuing enterprise targets that do not produce durable conservation-linked income.</p>
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EXECUTION

Capacity	Substantial	<p>Key risks identified include: thin staffing and turnover across executing/partner agencies (NRES, PERHILITAN, Pahang Forestry/land offices, park management) and IPLC institutions; coordination frictions across state–federal levels while the ILM Spatial Plan, Fraser’s Hill State Park ops, and IPLC-governed OECMs are stood up; new workflows (ANR/enrichment, HWC response with fencing/telemetry, joint SMART patrols, enterprise support) requiring skills/equipment not yet widespread; reliance on external experts during start-up; limited field connectivity and fragmented data/reporting slowing adaptive management; procurement/logistics bottlenecks for fencing, telemetry and PV spares that could delay restoration, HWC reduction, and enterprise roll-out. To mitigate these risks, the project will: stand up an experienced PMU with clear TORs, annual procurement/implementation calendars, and a simple dashboard for schedule/budget/results with escalation rules; formalize roles via MoUs/SOPs among NRES, PERHILITAN, and Pahang Forestry/land offices, and with IPLC bodies for co-management/enforcement; equip and mentor field teams (rugged devices, sampling/safety kits, SMART workflows, O&M manuals) and deliver a structured capacity program for park staff, regulators, and IPLC rangers/enterprise operators; pre-position critical spares and use framework agreements/SLAs for fencing/telemetry/PV to keep equipment operational;</p>
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		enable offline-first data capture and routine backups; and use the Knowledge Hub plus quarterly reviews (AOP, MTR/TE) to drive adaptive corrections and replication to other states.
Fiduciary	Substantial	Key risks identified include: multi-site, small-lot procurements for restoration inputs, elephant-proof fencing/telemetry, SMART gear and solar PV (plus spares) increasing exposure to price volatility, weak competition and vendor lock-in; documentation gaps and delays across NRES, PERHILITAN, Pahang Forestry/land offices and park/OECM implementers leading to ineligible costs or late payments; segregation-of-duties and approval bottlenecks during peak procurement; FX/shipping spikes pushing contracts over budget; conflict-of-interest exposure and petty fraud in travel/per-diem heavy field operations; asset custody/inventory risks for high-value equipment; and potential commingling or unclear accountability among multiple funding streams. To mitigate these risks, the project will: apply UNDP/GEF FM & procurement controls—risk-based procurement plan, competitive methods, market-price checks, framework agreements, and e-tendering where feasible; enforce dual signatories, clear approval matrices, and asset/consumables registers with periodic reconciliations; ring-fence project and O&M funds in separate accounts with defined eligibility rules; include FX/price contingencies and capped variation orders; require conflict-of-interest disclosures and maintain a confidential whistleblowing channel; run FM/procurement trainings for PMU and implementing partners with regular spot checks and independent annual audits; and publish simple progress dashboards to strengthen transparency and deter rent-seeking.
Stakeholder	Moderate	Key risks identified include: diverging priorities and mandates among NRES, PERHILITAN, Pahang Forestry/land offices, local authorities and IPLC institutions that can slow adoption of the ILM Spatial Plan, Fraser’s Hill State Park operations and recognition of IPLC-governed OECMs; participation fatigue or uneven inclusion of women and poorer households in the roll-out of community nature-positive enterprises; expectations or tensions around fence siting/HWC response and access rules in and around OECMs/State Park; risk of perceived inequitable benefit-sharing if stewardship MoUs are unclear; low awareness of grievance procedures, which can erode trust and delay delivery of restoration and income-increase outcomes. To mitigate these risks, the project will: implement a robust, gender-responsive SEP/GRM with FPIC and participatory mapping/siting; formalize co-management and benefit-sharing through stewardship MoUs with IPLCs; co-design HWC measures (elephant-proof fencing, telemetry alerts, community response teams) and access rules with affected communities; provide targeted capacity building and market support for women-led and vulnerable-group enterprises to reach the $\geq 25\%$ income result; and use the Knowledge Hub and outreach to maintain transparent feedback loops and enable replication in other states.

Other		
Overall Risk Rating	Substantial	Assessment and Mitigation Measures: This reflects cumulative risks across climate, environment & social, institutional/policy, technological, financial & business model, capacity, fiduciary, and stakeholder areas identified. To manage this level, the project will run quarterly risk reviews through the PMU and partners, integrate findings into Project Board decisions and Annual Work Plans, and apply adaptive management (re-sequencing activities, tightening safeguards, and corrective actions when risks trend upward). These reviews are embedded in the project's M&E plan (quarterly reporting; mid-term review; terminal evaluation) and learning loop via the Knowledge Hub. Governance and escalation are anchored in the Project Board/steering mechanism and co-management MoUs for the State Park/OECMs, while financing/implementation risks are buffered by signed co-finance MoUs, framework agreements with spares/O&M ring-fencing, and the enterprise readiness program supporting community ventures.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

The project's comprehensive approach is well-aligned with Objectives 1 of the GEF BD Focal Area and 2 of GEF LD Focal Area, GBF Targets, SDGs, and country priorities.

Project alignment with the GEF-8 Biodiversity Objectives

Focal Area	Focal Area Objective	Contribution to the Objective
Biodiversity	Objective 1: To improve conservation, sustainable use, and restoration of natural ecosystems	The ILM project targets the area-based conservation and integrated landscape management approach that GEF-8 BD Objective 1 funds (protected areas, OECMs, restoration within landscape mosaics, sustainable ecosystem management)
Land Degradation	Objective 2: Reverse land degradation through landscape restoration s	Component 2 includes assisted natural regeneration and targeted planting to restore 7,500 ha of degraded/selectively logged forest in corridors, plus protection measures to sustain recovery

Project contribution to GBF Targets

Target	Contribution to the target
Target 1 – Spatial planning & connectivity	The ILM Spatial Plan mainstreams biodiversity into land-use decisions and secures ecological linkages across the Ulu Jelai–Fraser's Hill watershed.
Target 2 – Restoration (30% degraded ecosystems)	ANR and target planting corridor restoration and riparian rehabilitation revive degraded forest linkages critical for species movement and watershed services.

Target 3 – 30x30 (PAs & OECMs)	Gazettement of Fraser’s Hill State Park and formalization of IPLC-governed conservation areas and FCC project expand and connect effectively managed conserved areas.
Target 4 – Species recovery & HWC	Co-managed SMART patrols and IPLC-led coexistence systems reduce poaching and human–wildlife conflict, supporting threatened species persistence.
Target 10 - Sustainable agriculture/forestry	Biodiversity-friendly livelihood models and sustainable forestry/NTFP value chains embed nature-positive practices in production systems at the forest–people interface.
Target 22 – IPLC rights & participation:	The project is built on IPLC co-design and co-governance, ensuring equitable participation, rights recognition, and benefit-sharing tied to conservation outcomes.

Project contribution to SDGs

SDG	Direct contribution
SDG 15 – Life on Land	Expands and effectively manages conserved areas (state park, IPLC OECMs), restores degraded corridors, and reduces poaching/HWC to safeguard terrestrial biodiversity.
SDG 6 – Clean Water & Sanitation	Landscape planning, riparian buffers, and forest restoration improve watershed regulation, water quality, and downstream resilience
SDG 13 – Climate Action	Forest protection and ANR/enrichment planting reduce deforestation risk and enhance carbon sequestration while building climate resilience of ecosystems and communities.
SDG 5 – Gender Equality	Targets women’s leadership and participation (e.g., women-led MSMEs, inclusive training/quotas) across governance, enforcement, and livelihoods.

Project contribution to the national environmental and development priorities

Priorities	Contribution
National Policy on Biological Diversity (NPBD) 2022–2030 (Malaysia’s NBSAP)	Delivers on goals/targets for expanding effectively managed conserved areas (PAs/OECMs), restoring ecosystems, mainstreaming biodiversity in planning, and strengthening knowledge/finance (ILM spatial plan, gazettement, IPLC OECMs, restoration, patrols, KM hub)
Biodiversity Finance Plan 2018	By expanding and managing conservation areas and pairing them with community enterprises and market partnerships that mobilize co-financing, the project advances Malaysia’s Biodiversity Finance Plan (2018) by increasing, diversifying, and sustaining biodiversity finance
Central Forest Spine (CFS) Master Plan	Advances ecological connectivity and corridor functionality in the Titiwangsa range through restoration and HWC-safe, wildlife-friendly measures.
Malaysia (Peninsular) Forestry Policy / Malaysia Policy on Forestry (2021)	Supports sustainable forest management, biodiversity protection, and climate co-benefits via state park and OECM establishment, improved management, and community stewardship.
Malayan Tiger Crisis Action Plan (MTCAP) 2021–2030	Strengthens anti-poaching and habitat connectivity actions that contribute to tiger recovery targets.
Malaysia’s Updated NDC (2021)	Contributes LULUCF outcomes (avoided deforestation, enhanced removals from restoration) toward the 45% GHG-intensity reduction target by 2030.
National Policy on Climate Change 2.0	The project, through its restoration activities, will contribute to Malaysia’s official climate change policy framework (PDF) which includes context for adaptation planning
MyNAP (to be adopted)	The project, through its restoration activities, will contribute to the National Adaptation Plan for Malaysia to be adopted in 2026

D. POLICY REQUIREMENTS

Gender Equality and Women’s Empowerment:

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities: Yes

Civil Society Organizations: Yes

Private Sector: Yes

Provide a brief summary and list of names and dates of consultations

The list of stakeholders involved in the PIF development is provided in the table below.

Key consultations for the PIF development

Name of the expert/ institute	Description	Date
Global Environment Facility (GEF) And Green Climate Fund (GCF) Program Technical Assessment Committee Meeting	Presentation of project suggestion on GEF8, Pahang ILM and Scaling Up Access and Benefit Sharing (ABS) Implementation in Malaysia, including IPLCs	August 22, 2025
Global Environment Facility (GEF) And Green Climate Fund (GCF) Program Assessment National Steering Committee Meeting	Evaluate the application and review how GEF8 funding will be implemented. Meeting involved representatives from the Ministry of Economy, Ministry of International Trade, Ministry of Finance, Orang Asli Development Department, and agencies.	August 26, 2025
Federal government discussion session on Document SB8j-1 f	The meeting was held for the preparation of the 1st Meeting of the Subsidiary Body on Article 8(J) (SB8j-1) with the aim to advance dialogue on the full and effective participation of Indigenous Peoples and Local Communities (IPLCs) in the implementation of the Kunming-Montreal Global Biodiversity Framework (KMGBF). Key issues include the recognition and protection of traditional knowledge, equitable benefit-sharing, and the inclusion of IPLC perspectives in national biodiversity strategies and action plans. The preparatory session provides an opportunity to review document SB8j-1 and consolidate regional positions to ensure that IPLC priorities are reflected in the outcomes of the meeting in Panama.	September 29, 2025
Pahang State Secretary Economic Planning Unit, Pahang Forestry Department, Pahang Wildlife Department, Tourism Pahang, Pahang Department of Orang Asli Development Pahang Biodiversity Council, Pahang State Parks Corporation, NRES Biodiversity Section, Tok Batin (Orang Asli elders).	The project preparation team discussed the project idea with 12 Pahang state agency representatives, 6 officers from NRES, 9 community representatives, including traditional leadership/elders from Lipis and Raub districts. The representatives welcomed the project and expressed gratitude for future support to address shortages, human-wildlife conflict, land degradation, and sustainable livelihood challenges. They acknowledged the importance of restoring ecosystems, and the potential to scale up some of the ideas for tourism and agriculture. Members emphasized their readiness to collaborate and maintain new infrastructure.	13-15 November 2025

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non- Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
UNDP	GET	Malaysia	Biodiversity	BD STAR Allocation: BD-1	Grant	5,013,220.00	476,256.00	5,489,476.00
UNDP	GET	Malaysia	Land Degradation	LD STAR Allocation: LD-2	Grant	545,018.00	51,777.00	596,795.00
Total GEF Resources (\$)						5,558,238.00	528,033.00	6,086,271.00

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount (\$)

150000

PPG Agency Fee (\$)

14250

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non- Grant	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
UNDP	GET	Malaysia	Biodiversity	BD STAR Allocation: BD-1	Grant	134,040.00	12,734.00	146,774.00
UNDP	GET	Malaysia	Land Degradation	LD STAR Allocation: LD-2	Grant	15,960.00	1,516.00	17,476.00
Total PPG Amount (\$)						150,000.00	14,250.00	164,250.00

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
UNDP	GET	Malaysia	Biodiversity	BD STAR Allocation	5,636,250.00
UNDP	GET	Malaysia	Land Degradation	LD STAR Allocation	614,271.00
Total GEF Resources					6,250,521.00

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
BD-1-1	GET	5,013,220.00	4000000
LD-2	GET	545,018.00	2220000
Total Project Cost		5,558,238.00	42,220,000.00

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of Natural Resources and Environmental Sustainability (NRES)	In-kind	Recurrent expenditures	400000

Recipient Country Government	Ministry of Natural Resources and Environmental Sustainability (NRES)	Public Investment	Investment mobilized	34200000
Recipient Country Government	Ministry of Natural Resources and Environmental Sustainability (NRES)	Grant	Investment mobilized	335000
Recipient Country Government	Forest Research Institute Malaysia (FRIM)	Public Investment	Investment mobilized	485000
Recipient Country Government	Department of Wildlife and National Parks (PERHILITAN)	In-kind	Recurrent expenditures	1800000
Recipient Country Government	State of Pahang	Public Investment	Investment mobilized	4000000
GEF Agency	UNDP	Loans	Investment mobilized	500000
GEF Agency	UNDP	Grant	Investment mobilized	400000
GEF Agency	UNDP	In-kind	Recurrent expenditures	100000
Total Co-financing				42,220,000.00

Describe how any "Investment Mobilized" was identified

Explanation of the co-financing:

- NRES – The allocation of USD 33,000,000 of of Public Investment, investment mobilized is for the infrastructure to establish the Malaysia Biodiversity Centre (MBC), which will serve as a central hub for scientific research, managing national collections, developing biodiversity standards, and strengthening the science-policy interface for conservation and sustainable resource use including the spatial data and biodiversity information gathered through this project. In addition, USD 19,400,000 of Public Investment, investment mobilized corresponds to the allocation under the Biodiversity Protection and Patrolling Programme and Smart Patrol for Permanent Forest Reserves within the Central Forest Spine, this includes supporting Orang Asli community rangers who are involved in preserving biodiversity within their landscapes by combating smuggling, illegal logging, wildlife poaching and land encroachment into protected areas. A further investment of USD 1,200,000 for the Transformation of the National Biodiversity Database, Malaysia Biodiversity Information System (MyBIS) will serve to upgrade and transform the national online database for biodiversity information to improve accessibility, functionality and capacity to manage, share and utilise data effectively for conservation planning and monitoring, where data from the proposed project will be collected, curated and utilised. The Malaysia Ecosystem Conservation Status Assessment programme will be allocated USD 335,000 for strategic studies to generate evidence-based data on conservation status and services provided by key ecosystems in Malaysia such as forests and wetlands that are crucial for supporting policy formulation and resource management for Malaysian landscapes. The in-kind contributions/recurrent expenditures correspond to government staff and office costs.
- FRIM – This research programme has an allocation of USD 485,000 to support knowledge management and application of the traditional indigenous knowledge on biodiversity and nature preservation from Orang Asli culture and traditions that will complement the new ILM approach and living in harmony with nature.

- PERHILITAN – the department will allocate USD 1,800,000 to boost the capacity of the Institute for Biodiversity (IBD) located in Pahang, through training and facility enhancements to enhance the capacity of related agencies to better manage and regulate wildlife conservation and protected areas with a focus on threatened species conservation.
- STATE OF PAHANG - USD 4,000,000 Public Investment, investment mobilised corresponds to the annual allocations for the next 5 years to the State of Pahang for conservation of biodiversity and forest protection including addressing human-wildlife conflict, increasing protected and conserved areas inclusive of OECMs, restoration of degraded areas and climate vulnerable ecosystems.
- UNDP has allocated funds for small grants to communities and enterprises for developing tourism, restoration of forests and improving agriculture practices which would be available as well as financing in the form of guaranteed loans to community-based enterprises that have bankable potential such as in tourism, agriculture, technology, forestry and other sectors that are present in the landscape which is home to diverse species of wildlife. The funds will also support the development of nature / climate financing and the work around climate resilient agriculture to complement the relevant components of the project. This includes USD 100,000 in-kind/recurrent expenditures co-financing for staff salaries, office space and other operational activities from the various staff supporting coordination and partner relationships from other projects, separate from the staff providing oversight functions and supported through the GEF Agency Fee.
- Additional co-financing will be investigated during the PPG from ongoing and planned national initiatives that contribute directly to the project’s objectives of securing globally significant biodiversity and ensure sustainable development through a ILM approach for improved biodiversity governance in Malaysia. These include WWF Malaysia, Pelindung, Enggang Management Services, Malaysia Forest Fund, Forestry Department of Peninsular Malaysia and PLAN Malaysia.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	Nancy Bennet		Nancy Bennet		nancy.bennet@undp.org
Project Coordinator	Solene le Doze		Solene Le Doze		solene.le.doze@undp.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name	Position	Ministry	Date (MM/DD/YYYY)
Datuk Nor Yahati Binti Awang	Deputy Secretary General (Environmental Sustainability)	Ministry of Natural Resources and Environmental Sustainability	1/29/2026

ANNEX C: PROJECT LOCATION

Please provide geo-referenced information and map where the project interventions will take place

ANNEX C: Project location and description

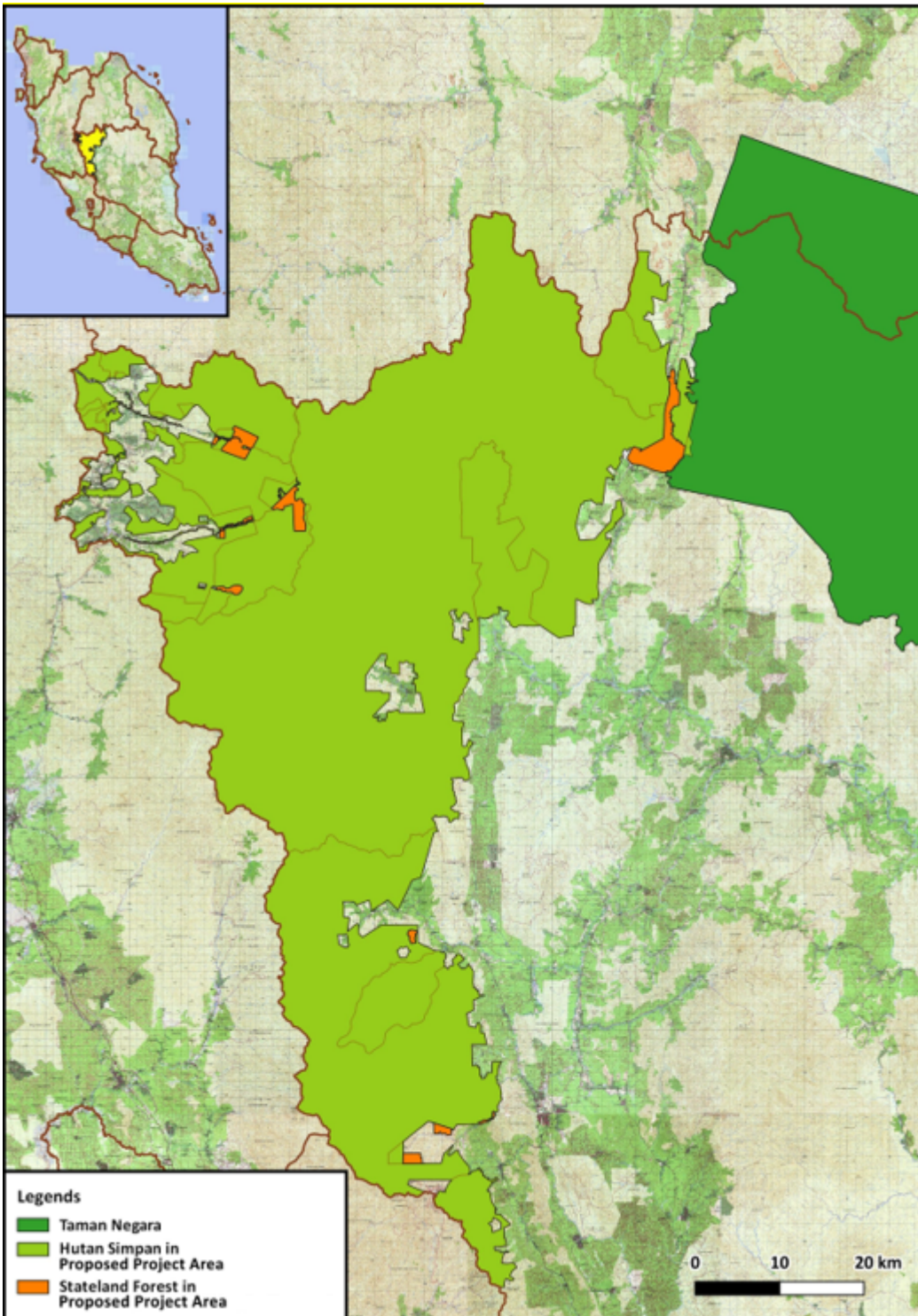


Figure 2. Permanent Reserved Forest (light green) and State Land Forest (orange) within the proposed project area and adjacent area of Taman National Park (dark green)

Project area coordinates in decimal degrees, WGS 1984 datum

Site	Longitude	Latitude
Ulu Jelai–Fraser’s Hill Watershed	101.640178	4.073484

ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title

10347-SESP_3Feb2026

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
No Contribution 0	No Contribution 0	Principal Objective 2	Principal Objective 2

ANNEX F: TAXONOMY WORKSHEET

Level 1	Level 2	Level 3	Level 4
<input checked="" type="checkbox"/> Influencing models			
	<input type="checkbox"/> Transform policy and regulatory environments		
	<input checked="" type="checkbox"/> Strengthen institutional capacity and decision-making		
	<input checked="" type="checkbox"/> Convene multi-stakeholder alliances		
	<input checked="" type="checkbox"/> Demonstrate innovative approaches		
	<input checked="" type="checkbox"/> Deploy innovative financial instruments		
<input checked="" type="checkbox"/> Stakeholders			
	<input checked="" type="checkbox"/> Indigenous Peoples		
	<input checked="" type="checkbox"/> Private Sector		
		<input checked="" type="checkbox"/> Capital providers	
		<input checked="" type="checkbox"/> Financial intermediaries and market facilitators	
		<input type="checkbox"/> Large corporations	
		<input checked="" type="checkbox"/> SMEs	
		<input checked="" type="checkbox"/> Individuals/Entrepreneurs	
		<input type="checkbox"/> Non-Grant Pilot	
		<input type="checkbox"/> Project Reflow	
	<input checked="" type="checkbox"/> Beneficiaries		

	<input checked="" type="checkbox"/> Local Communities		
	<input checked="" type="checkbox"/> Civil Society		
		<input checked="" type="checkbox"/> Community Based Organization	
		<input checked="" type="checkbox"/> Non-Governmental Organization	
		<input checked="" type="checkbox"/> Academia	
		<input type="checkbox"/> Trade Unions and Workers Unions	
	<input checked="" type="checkbox"/> Type of Engagement		
		<input checked="" type="checkbox"/> Information Dissemination	
		<input checked="" type="checkbox"/> Partnership	
		<input checked="" type="checkbox"/> Consultation	
		<input checked="" type="checkbox"/> Participation	
	<input checked="" type="checkbox"/> Communications		
		<input checked="" type="checkbox"/> Awareness Raising	
		<input checked="" type="checkbox"/> Education	
		<input checked="" type="checkbox"/> Public Campaigns	
		<input checked="" type="checkbox"/> Behavior Change	
		<input type="checkbox"/> Strategic Communications	
<input checked="" type="checkbox"/> Capacity, Knowledge and Research			
	<input checked="" type="checkbox"/> Enabling Activities		
	<input checked="" type="checkbox"/> Capacity Development		
	<input checked="" type="checkbox"/> Knowledge Generation		
		<input type="checkbox"/> Course	
		<input type="checkbox"/> Professional development	
		<input checked="" type="checkbox"/> Workshop	
		<input type="checkbox"/> Seminar	
		<input type="checkbox"/> Master Classes	
		<input checked="" type="checkbox"/> Training	
	<input type="checkbox"/> Targeted Research		
	<input checked="" type="checkbox"/> Learning		

		<input checked="" type="checkbox"/> Theory of Change	
		<input checked="" type="checkbox"/> Adaptive Management	
		<input checked="" type="checkbox"/> Indicators to Measure Change	
	<input checked="" type="checkbox"/> Innovation		
	<input checked="" type="checkbox"/> Knowledge Exchange		
		<input type="checkbox"/> South-South	
		<input type="checkbox"/> Field Visit	
		<input type="checkbox"/> North-North	
		<input type="checkbox"/> Learning	
		<input type="checkbox"/> Peer-to-Peer	
		<input type="checkbox"/> Conference	
		<input type="checkbox"/> Exhibit	
		<input checked="" type="checkbox"/> Learning	
		<input type="checkbox"/> Twinning	
<input checked="" type="checkbox"/> Gender Equality			
	<input checked="" type="checkbox"/> Gender Mainstreaming		
		<input checked="" type="checkbox"/> Beneficiaries	
		<input checked="" type="checkbox"/> Women groups	
		<input checked="" type="checkbox"/> Sex-disaggregated indicators	
		<input checked="" type="checkbox"/> Gender-sensitive indicators	
	<input checked="" type="checkbox"/> Gender results areas		
		<input checked="" type="checkbox"/> Access and control over natural resources	
		<input checked="" type="checkbox"/> Participation and leadership	
		<input checked="" type="checkbox"/> Access to benefits and services	
		<input checked="" type="checkbox"/> Capacity development	
		<input checked="" type="checkbox"/> Awareness raising	
		<input checked="" type="checkbox"/> Knowledge generation and Exchange	
<input checked="" type="checkbox"/> Focal Areas/Theme			

	<input checked="" type="checkbox"/> Biodiversity		
		<input checked="" type="checkbox"/> Protected Areas and Landscapes	
			<input checked="" type="checkbox"/> Terrestrial Protected Areas
			<input type="checkbox"/> Coastal and Marine Protected Areas
			<input type="checkbox"/> Productive Landscapes
			<input type="checkbox"/> Productive Seascapes
			<input checked="" type="checkbox"/> Community Based Natural Resource Management
		<input checked="" type="checkbox"/> Mainstreaming	
			<input type="checkbox"/> Extractive Industries (oil, gas, mining)
			<input checked="" type="checkbox"/> Forestry (Including HCVF and REDD+)
			<input checked="" type="checkbox"/> Tourism
			<input checked="" type="checkbox"/> Agriculture & agrobiodiversity
			<input type="checkbox"/> Fisheries
			<input type="checkbox"/> Infrastructure
			<input checked="" type="checkbox"/> Certification (National Standards)

			<input type="checkbox"/> Certification (International Standards)
		<input checked="" type="checkbox"/> Species	<input checked="" type="checkbox"/> Illegal Wildlife Trade
			<input checked="" type="checkbox"/> Threatened Species
			<input type="checkbox"/> Wildlife for Sustainable Development
			<input type="checkbox"/> Crop Wild Relatives
			<input type="checkbox"/> Plant Genetic Resources
			<input type="checkbox"/> Animal Genetic Resources
			<input type="checkbox"/> Livestock Wild Relatives
			<input type="checkbox"/> Invasive Alien Species (IAS)
		<input checked="" type="checkbox"/> Biomes	
			<input type="checkbox"/> Mangroves
			<input type="checkbox"/> Coral Reefs
			<input type="checkbox"/> Sea Grasses
			<input type="checkbox"/> Wetlands
			<input type="checkbox"/> Rivers
			<input type="checkbox"/> Lakes
			<input checked="" type="checkbox"/> Tropical Rain Forests
			<input type="checkbox"/> Tropical Dry Forests
			<input type="checkbox"/> Temperate Forests
			<input type="checkbox"/> Grasslands
			<input type="checkbox"/> Paramo
			<input type="checkbox"/> Desert
		<input checked="" type="checkbox"/> Financial and Accounting	
			<input checked="" type="checkbox"/> Payment for Ecosystem Services
			<input type="checkbox"/> Natural Capital Assessment and Accounting
			<input type="checkbox"/> Conservation Trust Funds
			<input type="checkbox"/> Conservation Finance

	<input checked="" type="checkbox"/> Land Degradation		
		<input checked="" type="checkbox"/> Sustainable Land Management	
			<input checked="" type="checkbox"/> Restoration and Rehabilitation of Degraded Lands
			<input type="checkbox"/> Ecosystem Approach
			<input type="checkbox"/> Integrated and Cross-sectoral approach
			<input type="checkbox"/> Community-Based NRM
			<input type="checkbox"/> Sustainable Livelihoods
			<input type="checkbox"/> Income Generating Activities
			<input type="checkbox"/> Sustainable Agriculture
			<input type="checkbox"/> Sustainable Pasture Management
			<input type="checkbox"/> Sustainable Forest/Woodland Management
			<input type="checkbox"/> Improved Soil and Water Management Techniques

		<input type="checkbox"/> Supplementary Protocol to the CBD	
			<input type="checkbox"/> Biosafety
			<input type="checkbox"/> Access to Genetic Resources Benefit Sharing
	<input checked="" type="checkbox"/> Forests		
		<input checked="" type="checkbox"/> Forest and Landscape Restoration	
			<input type="checkbox"/> REDD/REDD+
		<input checked="" type="checkbox"/> Forest	
			<input type="checkbox"/> Amazon
			<input type="checkbox"/> Congo
			<input type="checkbox"/> Drylands