

Malaysia: Assessing net positive impact of a nature-based solutions project



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Impact Assessment in Malaysia

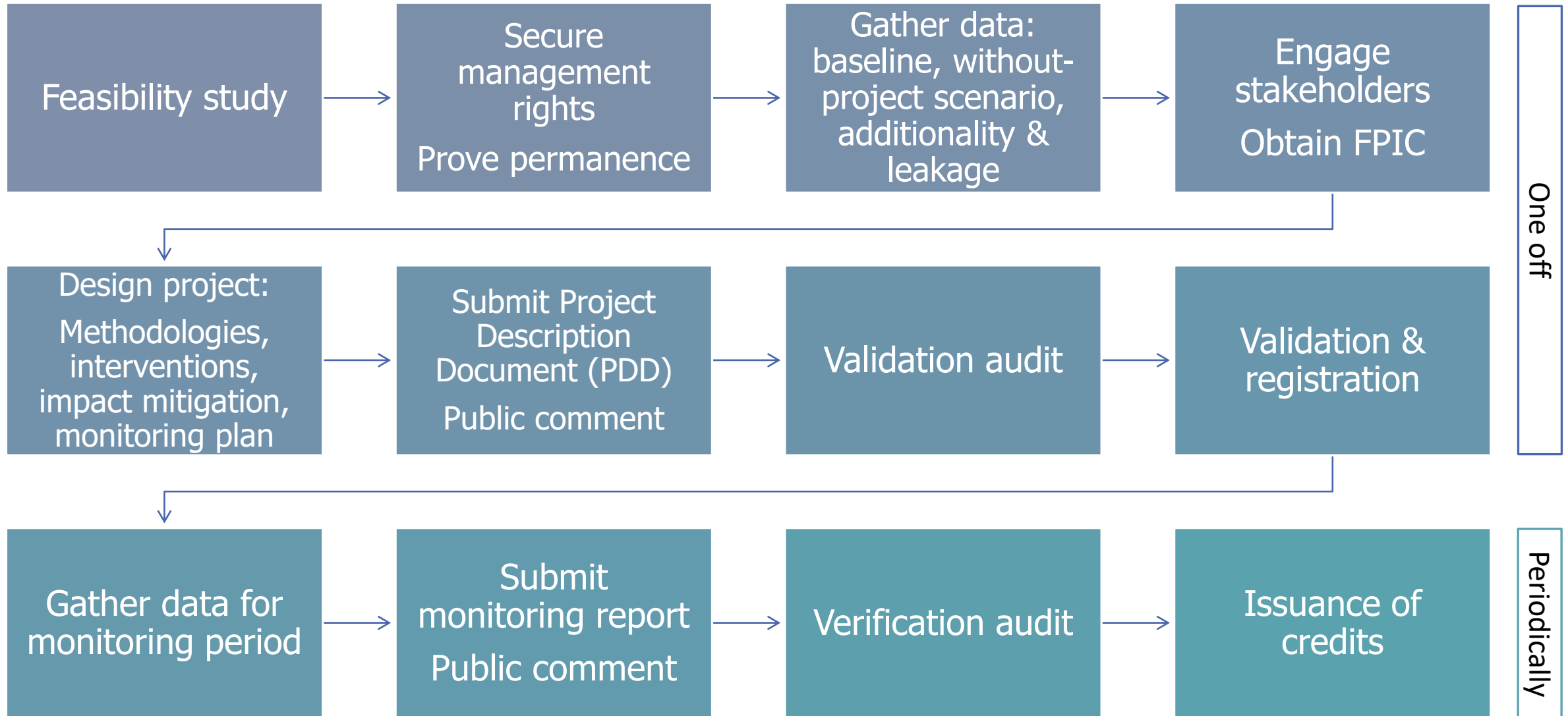
Environmental Impact Assessment

- Statutory requirement for approval in certain sectors – not required for conservation activities.
- Assessment to be conducted by accredited professionals.
- 'Guided self assessment' concept for follow-up monitoring. Project Proponent pledges to prevent and mitigate pollution.

Social Impact Assessment

- SIA is a statutory requirement for limited infrastructure development projects.
- Malaysian Sustainable Palm Oil Standard established a guideline for SIA.
- Association for SIA practitioners.

Nature-based Solutions: Process of Carbon Credit Production



Net Positive Impact In Nature-based Solutions

'No Net Harm' is priority

1. Establish biophysical and social baseline; identify high conservation values
2. Justify 'without project scenario' of climate, community and biodiversity impact
3. Design project interventions based on theory of change
4. Manage risks and mitigate negative impacts
5. Monitoring net positive impact



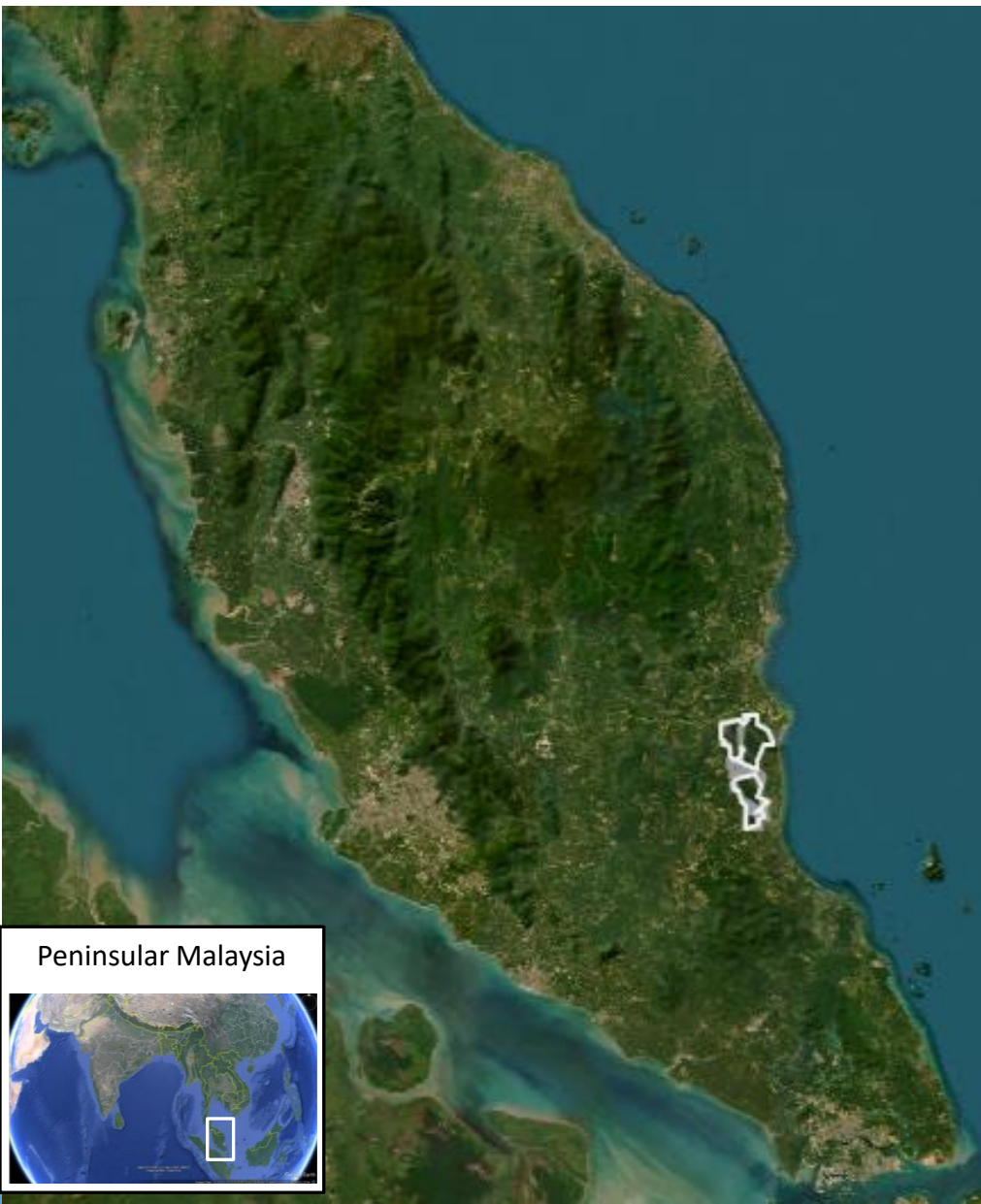
Mercung River (left) and man-made canal (right), with a raft house (Rumah Rakit) at the confluence
Credit: Pahang Peatland Restoration Project, Enggang (Pekan) Sdn Bhd

Case Study

Pahang Peatland Restoration Project
Malaysia

Operated by
Enggang (Pekan) Sdn. Bhd.

Pahang Peatland Restoration Project



Peninsular Malaysia

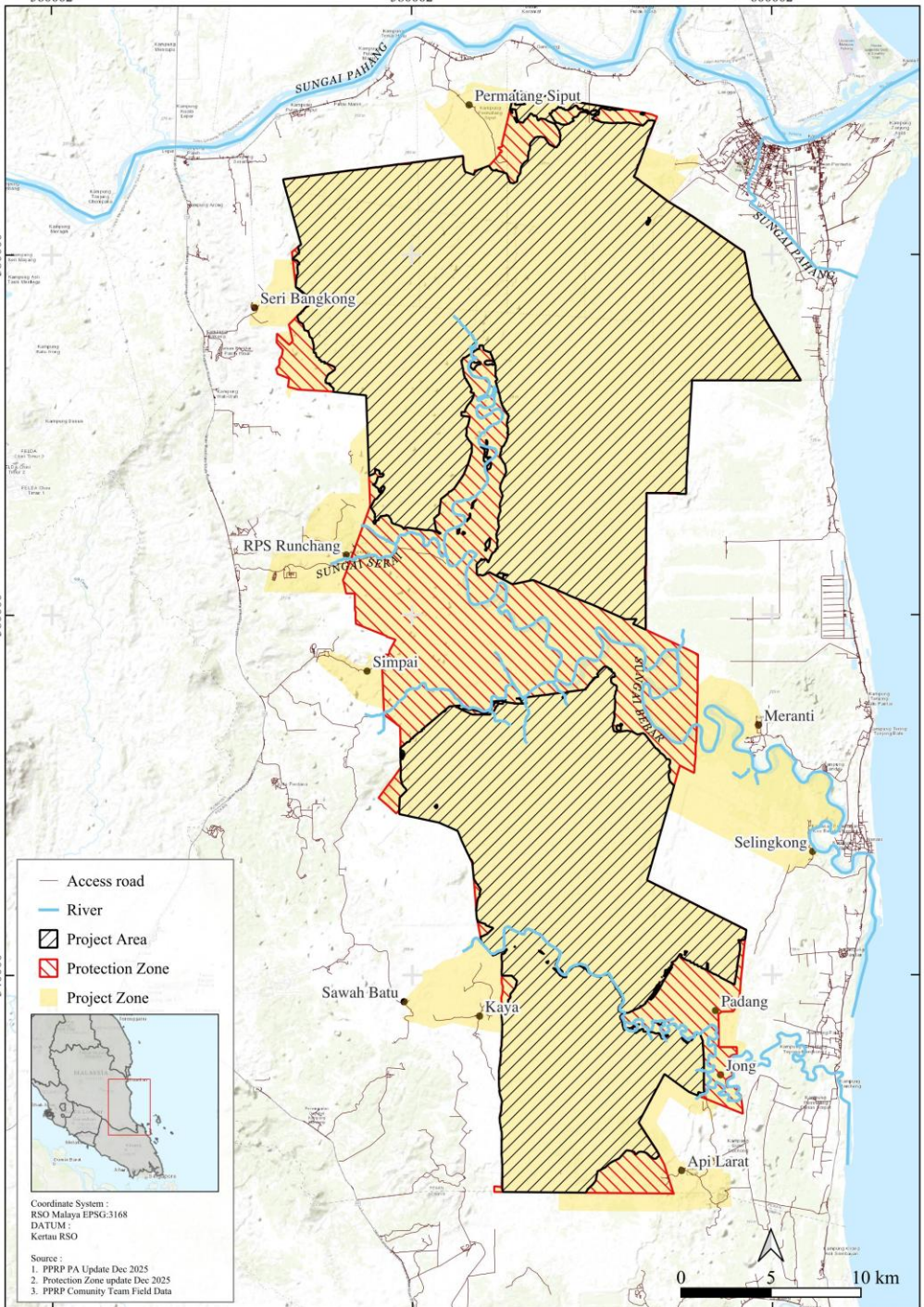


Project Proponent	Enggang (Pekan) Sdn Bhd
Co-developer	Habitat Carbon/ Southridge Group
Project lifetime	59 years (2024 – 2083)
Carbon standards	Verra Verified Carbon Standard (VCS) Climate, Community, Biodiversity (CCB) VM0007, VM0047; Grouped Project
Emissions avoidance/ reduction/ removal	Annual average: 3.1 million tCO ₂ e/year
Carbon stock	<ul style="list-style-type: none">• Good forest, degraded forest, severely degraded forest, non-forest• Drained and undrained peatland
Previous land use	Logging; with areas under pressure for conversion to agriculture

Pahang Peatland Restoration Project

Ecosystems	Mainly peat swamp forests, 2 rivers.
Communities	Forest dependant Indigenous Orang Asli Jakun ~6,600 people in 11 villages. Customary land tenure not legally gazetted. Surrounded by oil palm plantations. Relatively accessible to amenities.
Biodiversity	29 Rare, threatened and endangered floral & fauna species (4 CR, 11 EN, 14 VU).

Design Concept: Negative impact avoidance first

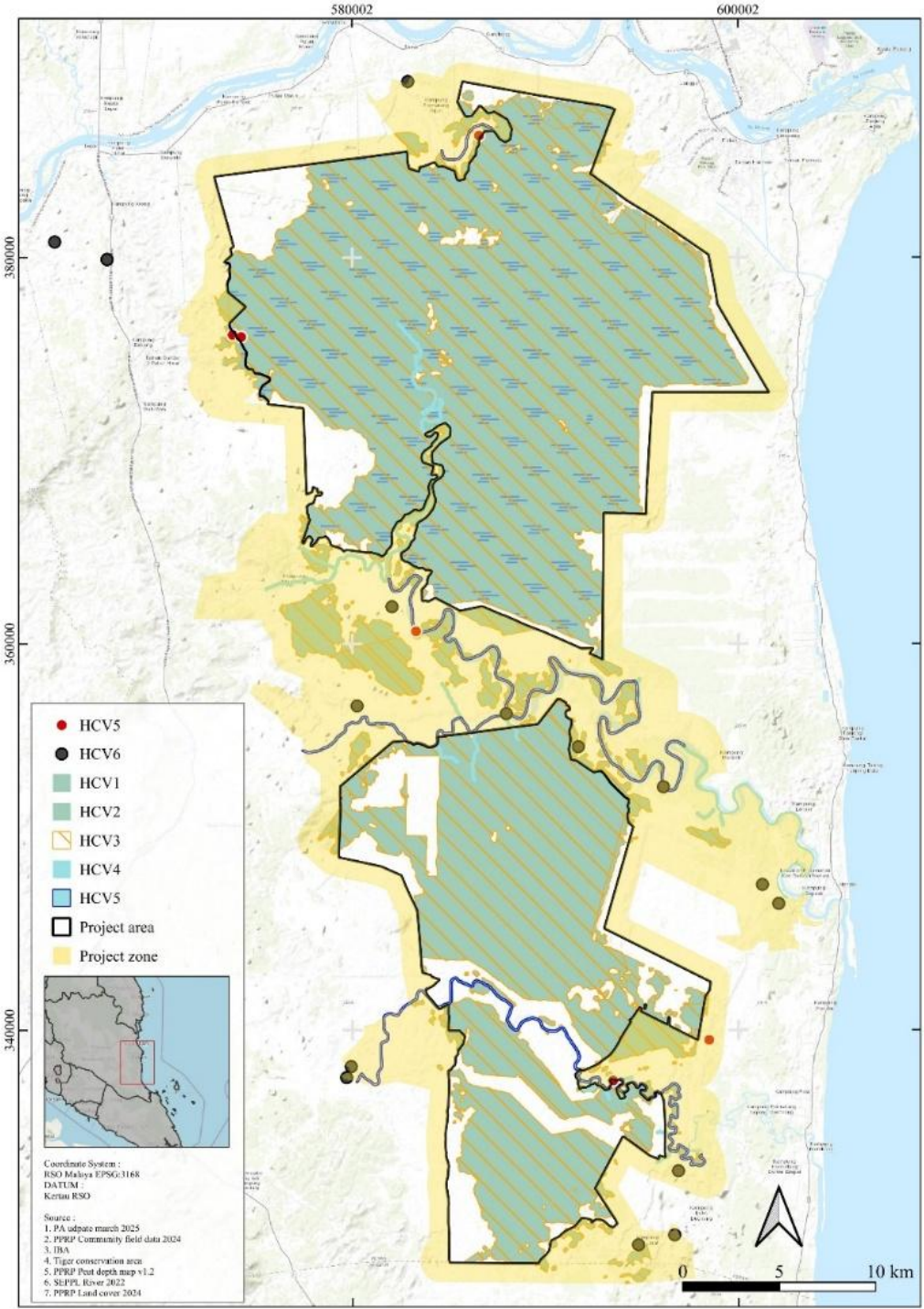


Project Zone (~125,641 ha)

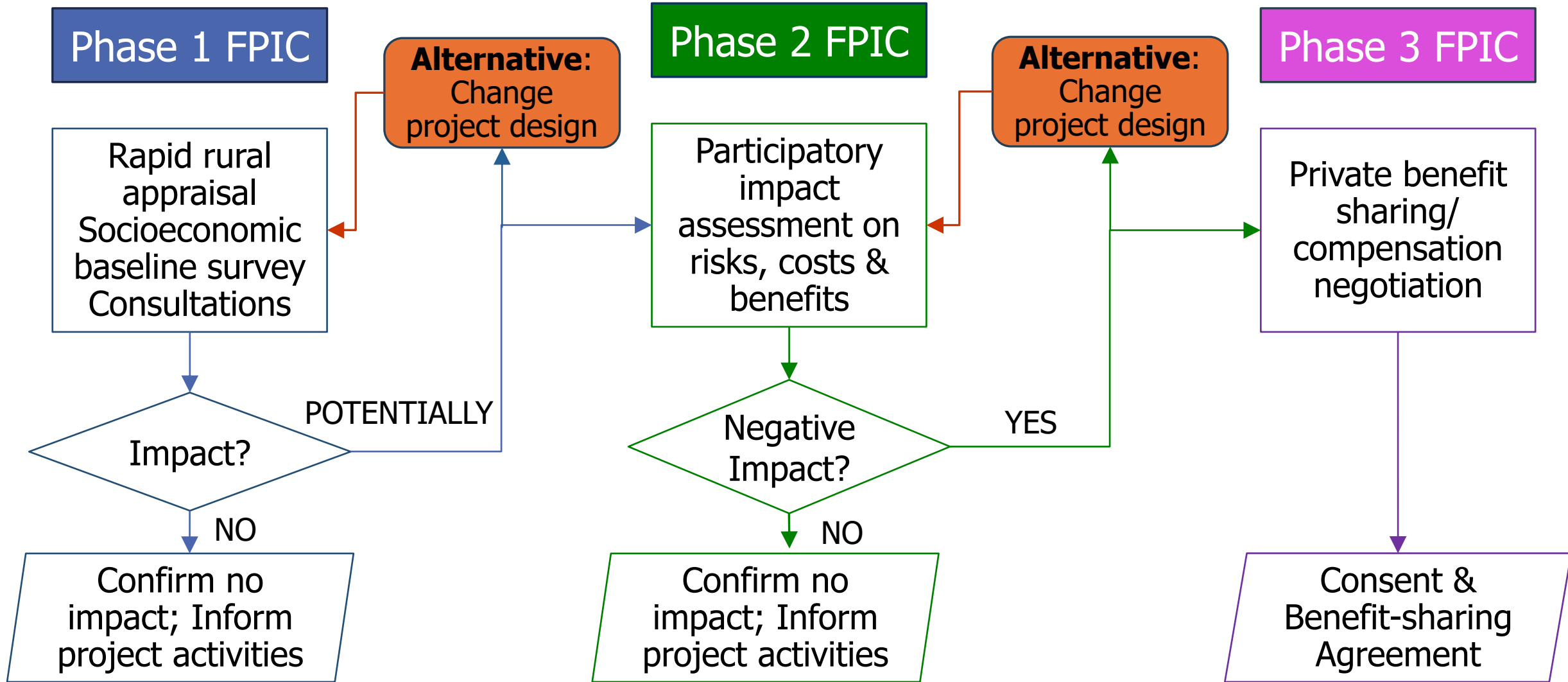
Use Permit Area (annual fee payable) 96,569 ha permanent reserved forest		Project Zone outside UPA (buffer zone & village areas)
Initial Project Area (grey pattern)	Protection Zone (red pattern)	
74,772 ha Produce carbon credits	21,821 ha	~29,072 ha actual village area uncertain

High Conservation Values Assessment

HCV1	Area with species diversity 63,901 ha of natural forest areas
HCV2	Landscape level ecosystem 41,168 ha in Pekan Forest Reserve
HCV3	Habitats or refuges for rare, threatened or endangered species 82% of Use Permit Area
HCV4	Critical ecosystem services Bebar & Mercung rivers & peat swamp forest
HCV5	Areas that provide basic needs of local communities Bebar & Mercung rivers & peat swamp forest
HCV6	Traditional cultural identity Lubuk Mudik, Pulau Kancil, Kuala Merba, Kuala Serai, Pulau Rawa



IA is an integral part of Free, Prior, Informed Consent process



Climate Impact

Baseline	Without Project	Intervention	Impact Assessment & Monitoring
Intact peat swamp forest	Logging impact projected from historical biomass loss after similar logging	Secure use rights for carbon project, replace revenue from logging	Deforestation monitoring with earth observation technology, ground patrol conducted daily.
Degraded peat swamp forest	Various rates of regeneration affected by peat subsidence & fire	Reforestation	Natural regeneration and actively replanted area monitored monthly.
	Encroachment for agriculture purpose	Patrol to prevent encroachment	Ground patrol conducted daily; ongoing social fencing.
Drained peatland	Susceptible to peat and forest fire	Canal blocking to rewet peatland	Hydrology and weather pattern monitoring to assess fire risk and monitor impact of rewetting.
		Fire prevention and suppression	Fire hotspot monitoring with earth observation technology, ground patrol conducted daily. Burnt scar measurement.

Community Impact

Baseline	Without Project	Intervention	Impact Assessment & Monitoring
Indigenous peoples living in poverty	Reduced income source from forest	Capacity building & livelihood assistance programmes	Outcome monitoring of capacity building and livelihood initiatives; Quantitative survey for long-term well-being indicators every 5 years.
Low education level	School dropout	Community learning hub Education assistance	
Poor well-being	Social ills	Healthy pastimes e.g. sports, handicraft	
	Disappearing culture	Cultural festivals & events	
Unintentional risks: <ul style="list-style-type: none"> Noise, air, water pollution from patrolling, fire suppression, biodiversity monitoring and canal-blocking operations Altered hydrology on agriculture land Economic impact due to stoppage of logging 			Participatory assessment and joint monitoring; Accessible grievance mechanism

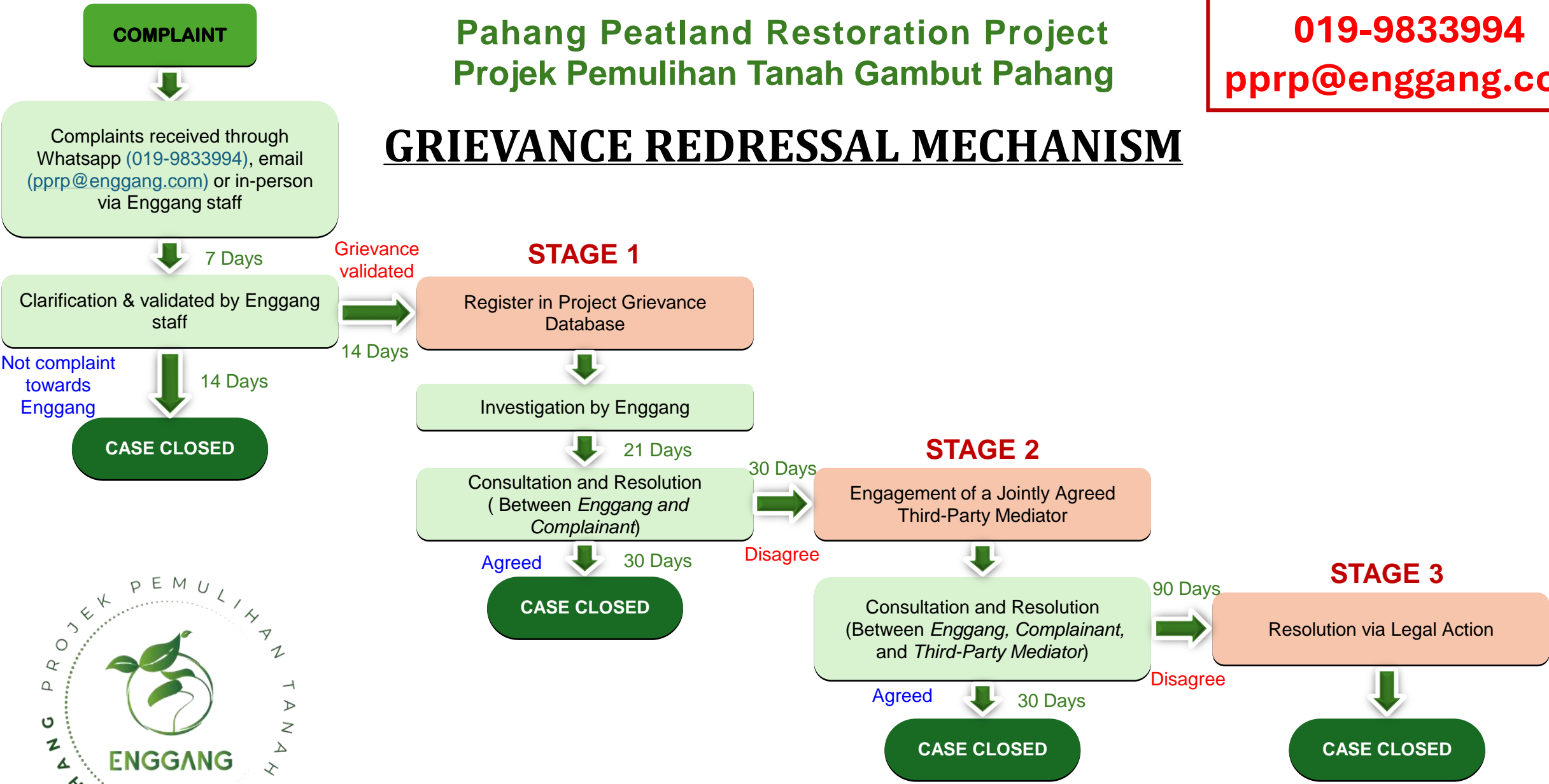
Biodiversity Impact

Baseline	Without Project	Intervention	Impact Assessment & Monitoring
Intact & degraded peat swamp forest	Logging, fire, destruction of habitat	Secure use rights for carbon project, replace revenue from logging	Deforestation monitoring with earth observation technology, ground patrol conducted daily.
Rivers & forests as habitat for flora & fauna	Over-fishing & hunting & NTFP gathering	Awareness campaign for indigenous users; Patrolling & enforcement for anti-poaching	Biodiversity monitoring with fixed-transect visual encounter survey, camera trapping, fish biodiversity monitoring pre- and post-intervention.
Unintentional risks: <ul style="list-style-type: none"> • Offsite biodiversity impact 			Participatory assessment and joint monitoring; Accessible grievance mechanism

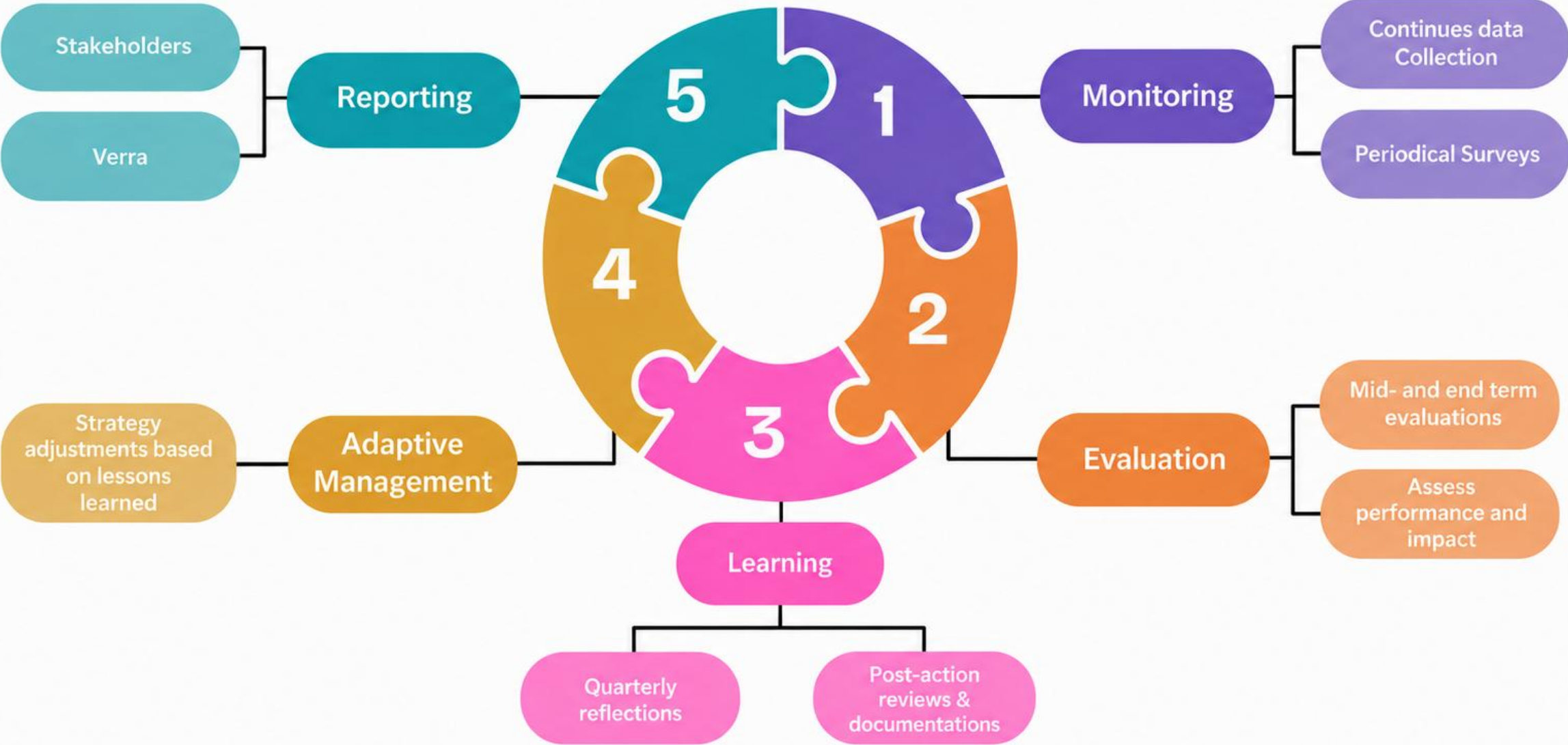
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Pahang Peatland Restoration Project
Projek Pemulihan Tanah Gambut Pahang

GRIEVANCE REDRESSAL MECHANISM



Monitoring, Evaluation, Learning & Adaptive Management





IAIA26
QUÉBEC CITY, CANADA

Let's continue the conversation!

Message me your questions or comments in the IAIA26 app.

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