



REPORT

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# The Trouble with Timber: Scrutinizing the Effectiveness of Sustainable Certification in Peninsular Malaysia



This report is intended to be read in conjunction with *Lost in Certification* (2023) and subsequent 2024 policy analysis *'How to Fix MTCS'* (2024) by the Borneo Project and Bruno Manser Fonds, to illustrate the prevalence of issues with the MTCS/PEFC timber certification scheme across both West and East Malaysia.

This report was commissioned by Friends of the Earth England, Wales and Northern Ireland (FOE EWNI).

**All standards referred to in the report are valid for the dates reviewed in the report, read the methodology for details.**

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### **About RimbaWatch**

RimbaWatch is an environmental think-tank conducting research and advocacy on climate-related issues in the Maritime Southeast Asian region.

[rimbawatchmy.com](http://rimbawatchmy.com)  
[admin@rimbawatch.com](mailto:admin@rimbawatch.com)

### **About Friends of the Earth England, Wales and Northern Ireland**

Friends of the Earth is the UK's biggest grassroots network dedicated to protecting people and planet.

<https://friendsoftheearth.uk/>  
[media@foe.co.uk](mailto:media@foe.co.uk)



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# KEY TERMS

Key Abbreviations	
AAC	Annual Allowable Cut
CB	Certification Body
CFS	Central Forest Spine
CoC	Chain of Custody
DOE	Department of Environment
EIA	Environmental Impact Assessment
EIFA	Ecologically Important Forest Areas
ESA	Environmentally Sensitive Area
FPIC	Free, Prior, Informed Consent
FDPM	Forestry Department Peninsular Malaysia
FMU	Forest Management Unit
FSC	Forest Stewardship Council
ha	Hectare
ILO 169	International Labour Organization Convention 169
ITP	Industrial Timber Plantation, also referred to as Forest Plantations by State Authorities, Auditors and Standards
ITT	Indigenous Traditional Territories
JAKOA	Jabatan Kemajuan Orang Asli (Department of Orang Asli Development)
NFA	National Forestry Act 1984
MAB	UNESCO Man and Biosphere Programme

MC&I (SFM)	Malaysian Criteria and Indicators for Sustainable Forest Management (MTCS ST 1002:2021)
MTCC	Malaysian Timber Certification Council
MTCS	Malaysian Timber Certification Scheme
MTIB	Malaysian Timber Industry Board
PEFC	Programme for the Endorsement of Forest Certification
PRF / PFR	Permanent Reserved Forest
SIRIM	Standard and Industrial Research Institute of Malaysia (SIRIM) QAS International
UNDRIP	UN Declaration on the Rights of Indigenous Peoples

<b>Key Terms</b>	
Class I Tiger Conservation Landscape	Priority conservation landscape for Malayan tigers
Conversion Timber	Timber sourced from areas converted from natural forest to other land uses
Environmental Sensitive Rank 1 Area	Sensitive areas identified by Malaysian State and National Physical Plans
High Conservation Value Forests (HCVFs)	Forests with significant environmental or social value
Orang Asli	Indigenous peoples of Peninsular Malaysia
Naturally Regenerating Forest	Forest predominantly composed of trees established through natural regeneration.
Recertification Audit	An audit conducted before certificate expiration to renew certification
Surveillance Audit	Follow-up audits to ensure continued certification compliance
Tanah Adat	Indigenous customary land, also referred to as Indigenous Traditional Territories
Traditional Ecological Knowledge (TEK)	Knowledge held by Indigenous communities about their environment



**Figure 1: Overview of forest reserves in Peninsular Malaysia (green) and state borders (red)**

# Executive Summary

## Overview

In 2024, Malaysia's total timber exports were valued at almost USD5.4 billion, with the Americas and Europe being primary destinations for timber specifically from Peninsular Malaysia, through commodities such as wooden furniture, plywood, sawn timber, builders joinery and carpentry. Primarily, this timber derives from four million hectares of forest management units (FMUs) in Peninsular Malaysia certified by the Malaysia Timber Certification Scheme (MTCS) and the Programme for the Endorsement of Forest Certification (PEFC).

In Peninsular Malaysia, FMUs are certified at the state level, meaning that all forest reserves in a particular state comprise the FMU. At time of publication, there are seven certified FMUs: Johor, Negeri Sembilan, Pahang, Perak, Selangor, Terengganu and Kedah, with FMU sizes ranging from 150,000 hectares to 1.5 million hectares. Currently, SIRIM QAS International, which is owned by Malaysia's Ministry of Trade and Industry, are the sole auditors of Peninsular Malaysia's FMUs, and are the certification body that issues MTCS/PEFC certification.

Complementing investigations conducted into MTCS certification in Sarawak by the Borneo Project and Bruno Manser Fonds (2023) which uncovered numerous failings that suggest this certification system is not fit for purpose in Sarawak, this report critically examines the effectiveness of the MTCS in Peninsular Malaysia, through an analysis into auditing practices related to the certification of FMUs. Audit reports published by SIRIM between 2021 and 2024 were assessed through integrating analyses of documentation and geospatial monitoring, focusing on criteria from the PEFC ST1003:2018 Standard and MC&I (SFM) Standard (MTCS ST 1002:2021), and relevant interpretation guides, related to Indigenous rights, Ecologically Important Forest Areas (EIFAs) and forest conversion.

This report contends that poor auditing practices severely undermine the credibility of MTCS recognition in Peninsular Malaysia, and that timber under these certificates are at demonstrable risk of association with human rights violations, large-scale conversion of natural forest to monoculture and harm to EIFAs. Further, this report finds that components of the MTCS standard, and their interpretation by auditors, are non-compliant with PEFC benchmarks.

This new report, alongside the previously documented evidence from Sarawak, demonstrates that failings in the MTCS certification system are widespread across Malaysia.

### 1. Indigenous Rights Undermined:

- a. The UN Declaration on the Rights of Indigenous Peoples (UNDRIP) and PEFC Standards require recognition of Indigenous territories beyond legal frameworks. Critically, both the MTCS and the auditors themselves dismissed Indigenous land conflicts in cases where their land rights are not recognised by the state.
- b. In at least nine audit reports across a range of FMUs, auditors failed to acknowledge well-documented and widely reported Indigenous land conflicts and grievances occurring within the FMU, ignored or misrepresented complaints raised by Indigenous Orang Asli communities and made broad and factually incorrect statements on Indigenous peoples and their culture, such as claiming *"No evidence that the Orang Asli communities in Pahang FMU (sic) their traditional forest-related knowledge"*.
- c. Auditors engaged with a tiny fraction of Indigenous communities in each FMU, made little attempt to visit communities that had lodged complaints and relied primarily on a government agency heavily criticized for misrepresenting Indigenous interests for verification.

## 2. Weak Oversight of Conversion Timber:

- a. Certification audits included areas of natural forest earmarked for large-scale conversion to monoculture within the scope of certification.
- b. Audits consistently ignored the occurrence of conversion in FMUs despite such occurrence being detectable with satellite imagery; missing at least 1,823ha of such conversion.
- c. At a minimum, two FMUs possibly exceeded the 5% FMU conversion limit clearly stipulated by both standards.
- d. While the SF&M standard intends for industrial timber plantations to be established only on non-natural forests or severely degraded forests which are not naturally recovering, the conversion of intact natural forest to industrial plantations is widespread in certified FMUs. In two FMUs the vast majority of areas earmarked for conversion are in intact forests, comprising a combined 26,000ha.

## 3. Destruction of Ecologically Important Forests and Damage to Provision of Ecosystem Services

- a. At least 65,000ha of logging occurred in a Class I Tiger Conservation Area, 2,734ha in the South-East Pahang Peat Swamp Forest, and 4,017ha in Central Forest Spine habitat connectors.
- b. Within the Pahang FMU, a 1,446ha industrial timber plantation was approved in the peripheral zone of the Tasik Chini UNESCO Biosphere Reserve.
- c. Between 2021-2024, at least 34,260ha of conversion of natural forest to industrial timber plantations occurred within Environmentally Sensitive Rank 1 areas; zones that have been classified as unsuitable for development by local authorities. Between 2021-2024, at least 34,260ha of conversion of natural forest to industrial timber plantations occurred within Environmentally Sensitive Rank 1 areas; zones that have been classified as unsuitable for development by local authorities.
- d. Within the Kedah FMU, a flash flood in Iboi village which claimed three lives, destroyed 17 houses and affected 3,546 residents was linked to clearance for an industrial timber plantation upriver. There is no indication that timber from this clearance was excluded from receiving MTCS/PEFC certification.
- e. The Kedah FMU removed the status of a forest as a water catchment to facilitate its logging, and current logging activities have disturbed water quality in a reservoir supplying the majority of water to Penang, Malaysia's second largest urban area; despite protests from Penang's Chief Minister.
- f. None of these FMUs faced corrective action by the auditors for the above activities.

## 4. Lack of Transparency and Oversight:

- a. There is no transparency on environmental impact assessment (EIA) documents covering many logging operations, and no macro-level EIA is available either in part or in full, online.
- b. Only one out of seven forest management plans are available online in full.
- c. Within the entire standards certification ecosystem, there is no independent oversight for procedural and factual inconsistencies made by SIRIM other than a single anonymous panel in the Department of Standards Malaysia, a department under the purview of the Ministry of Trade and Industry, who are the owners of SIRIM.
- d. Neither the auditors nor the MTCS have established a cohesive complaints procedure. Information on the MTCC website on the complaints process is convoluted, with contact links broken or leading only to a general email address or contact form. The word "complaint" only appears once in the MTCS Standard.
- e. Neither the auditors nor the MTCS have established a clear limit regarding what constitutes a withdrawal or suspension of a certificate.

FMU Name	Summary: Failings Identified in Audit Reports 2021-2024	
	Ecological Failings	Human Rights Failing
<b>Kedah</b>	<ul style="list-style-type: none"> <li>It is unclear how conversion areas are excluded from certification scope. In audit reports, there is no mention of the exclusion of any conversion areas, whether it has already been converted or earmarked for conversion, for ITP or any other purpose, from the scope of recertification. Further, the maps of FMUs attached to these reports do not identify or exclude any conversion areas, including ITP zones.</li> <li>The Kedah FMU has exceeded the 5% conversion limit, with 5.4% of its FMU being zoned for ITPs. The FMU has also exceeded quotas for ITPs set by the National Land Council in 2012, which was acknowledged in a 2022 Auditor-General Special Report.</li> <li>43.5% of forests in ITP zones in the FMU can be classified through remote sensing methods as “undisturbed”, contradicting MTCC guidance that ITPs should only target “severely degraded forests”.</li> <li>At least 2,352ha of ITP zones are located in ESA Rank 1 Areas in Baling District, Kedah. This contradicts MTCC guidance that forest conversion must not occur on environmentally sensitive areas, and stipulations in State Structure Plans which state no logging is permitted in Rank 1 areas.</li> <li>In July 2022, Kampung Iboi in Kedah, experienced a large flood and water surge phenomenon which killed three people and destroyed 17 houses. Kampung Iboi is downriver and directly adjacent to Gunung Inas Forest Reserve. At least 400ha of tree cover loss occurred between 2018 and 2021 upriver of Kampung Iboi inside an ITP Zone within the Gunung Inas Forest Reserve. No SIRIM audit report that was reviewed made any mention of conversion timber from the Gunung Inas Reserve being excluded from the scope of certification.</li> <li>The Muda reservoir, located in Kedah, supplies water to key agricultural land and regulates water flows to the lower Muda river, where 80% of Penang’s water supply is sourced from. Satellite imagery of Muda reservoir in March 2023 shows a relatively undisturbed river and reservoir, but in October and December 2023 the river was visibly muddied, and was depositing this mud into the reservoir. This occurred downstream of logging activities.</li> <li>Between 2012 and time of publication, the Kedah Forest Department had removed the protective ‘water catchment’ status of forests surrounding the eastern end of the Muda reservoir, and the forest has since experienced tree cover loss after its loss of protection.</li> </ul>	
<b>Perak</b>	<ul style="list-style-type: none"> <li>It is unclear how conversion areas are excluded from certification scope. In audit reports, there is no mention of the exclusion of any conversion areas, whether it has already been converted or earmarked for conversion, for ITP or any other purpose, from the scope of recertification. Further, the maps of FMUs attached to these reports do not identify or exclude any conversion areas, including ITP zones.</li> <li>Auditors claim no conversion of the FMU to forest plantations or other land uses during the audit period, however at least 1,171ha of tree cover loss in ITP zones had occurred in the FMU during this period. These audit reports did not mention the use of satellite imagery in their methodologies.</li> <li>64.8% of forests in ITP zones in the FMU can be classified through remote sensing methods as “undisturbed”, contradicting MTCC guidance that ITPs should only target “severely degraded forests”.</li> <li>At least 8,884ha of ITP zones are located in ESA Rank 1 Areas in Kuala Kangsar district, Perak. This contradicts MTCC guidance that forest conversion must not occur on environmentally sensitive areas, and stipulations in State Structure Plans which state no logging is permitted in Rank 1 areas.</li> </ul>	<ul style="list-style-type: none"> <li>Auditors claimed in the main text of the public summary report that there were no disputes or complaints from Orang Asli communities, when at least three such complaints were recorded in the appendix.</li> <li>Auditors claimed in the main text of the public summary report that there were no civil court cases regarding land tenureship in the FMU, when at least one civil court case had been filed.</li> <li>Auditors made no attempt to visit communities due to ‘covid-19’ and ‘recommendations from JAKOA’.</li> <li>Between 2021 and 2023, the auditors of the Perak FMU only visited thirteen Indigenous villages in Perak, comprising 5% of registered villages.</li> <li>Auditors justified non-consultation by citing ‘village refused to be consulted’ or ‘lack of road access’, and instead conducted consultations with JAKOA.</li> <li>Auditors marked a complaint filed by RimbaWatch as “unwilling an identity be revealed”, without contacting us on the matter.</li> <li>Auditors did not recognise Indigenous rights beyond legal requirements, and in responding to a blockade erected by Orang Asli to defend their forests from logging in the FMU, auditors stated that the blockade was “not in accordance with the legal requirements for Peninsular Malaysia”.</li> </ul>

<p><b>Selangor</b></p>		<ul style="list-style-type: none"> <li>• Auditors claimed Orang Asli had no land claims in the FMU, when such claims exist in at least two forest reserves in the FMU.</li> </ul>
<p><b>Negeri Sembilan</b></p>	<ul style="list-style-type: none"> <li>• It is unclear how conversion areas are excluded from certification scope. In audit reports, there is no mention of the exclusion of any conversion areas, whether it has already been converted or earmarked for conversion, for ITP or any other purpose, from the scope of recertification. Further, the maps of FMUs attached to these reports do not identify or exclude any conversion areas, including ITP zones.</li> </ul>	<ul style="list-style-type: none"> <li>• Auditors claimed that no logging activities had threatened the land use and forest resources of the Orang Asli, when at least three villages had made complaints about water sources being polluted due to logging in the FMU.</li> </ul>
<p><b>Pahang</b></p>	<ul style="list-style-type: none"> <li>• It is unclear how conversion areas are excluded from certification scope. In audit reports, there is no mention of the exclusion of any conversion areas, whether it has already been converted or earmarked for conversion, for ITP or any other purpose, from the scope of recertification. Further, the maps of FMUs attached to these reports do not identify or exclude any conversion areas, including ITP zones.</li> <li>• The Pahang FMU has exceeded the 5% conversion limit, with 6.6% of its FMU being zoned for ITPs. The FMU has also exceeded quotas for ITPs set by the National Land Council in 2012, which was acknowledged in a 2022 Auditor-General Special Report.</li> <li>• 24.5% of forests in ITP zones in the FMU can be classified through remote sensing methods as “undisturbed”, contradicting MTCC guidance that ITPs should only target “severely degraded forests”.</li> <li>• Between 2021 and 2023, 2,734ha of tree cover loss occurred in the FMU within the South-East Pahang Peat Swamp Forest (SEPPSF), which is “believed to be mainland Asia’s largest and least disturbed peat swamp forest”.</li> <li>• An EIA for an ITP next to the Chini UNESCO Biosphere Reserve was approved in November 2024. At least 1,400ha of the ITP overlaps the Biosphere’s peripheral zones, and there is little buffer between the ITP and the main Biosphere Reserve.</li> <li>• At least 23,024ha of ITP zones are located in ESA Rank 1 Areas in Pahang. This contradicts MTCC guidance that forest conversion must not occur on environmentally sensitive areas, and stipulations in State Structure Plans which state no logging is permitted in Rank 1 areas.</li> <li>• Maps attached in public summaries appear to be outdated; the map of the Pahang FMU attached in SIRIM’s Recertification Audit (4th Cycle) of the Pahang FMU, published in June 2024, includes an 8,500ha portion of the Bukit Ibam Forest Reserve which was degazetted in November 2020</li> </ul>	<ul style="list-style-type: none"> <li>• Auditors claimed that Orang Asli in the Pahang FMU no longer practice “traditional forest-related knowledge”, which is false.</li> <li>• In the Pahang FMU, between 2023 and 2024, only nine Indigenous villages had been visited, out of 261 government-registered villages in the state, representing just 3.4%.</li> <li>• The auditors dismiss FPIC on the basis that FPIC was not applicable to Indigenous tenureship within the FMU. They stated: “The Pahang State had recognized the right of the Orang Asli and had established ‘Orang Asli Reserve’ (Section 7 of Aboriginal Peoples Act 1954) that managed by the JAKOA. Pahang state does not use the Orang Asli Reserves and hence the question of delegation of control with free, prior and informed consent does not arise”.</li> <li>• The auditors also claimed that “There were no legal indigenous peoples’ land rights within the Pahang FMU “legal rights in the form of Orang Asli Reserve were all outside the forest reserves”, “Orang Asli or local communities did not have right of ownership over land in the PRF”, which contradicts the PEFC standard and those cited by the PEFC, such as UNDRIP.</li> </ul>
<p><b>Terengganu</b></p>	<ul style="list-style-type: none"> <li>• It is unclear how conversion areas are excluded from certification scope. In audit reports, there is no mention of the exclusion of any conversion areas, whether it has already been converted or earmarked for conversion, for ITP or any other purpose, from the scope of recertification. Further, the maps of FMUs attached to these reports do not identify or exclude any conversion areas, including ITP zones.</li> <li>• In various audit reports, auditors claim no conversion of the FMU to forest plantations or other land uses during the audit period, however at least 652ha of tree cover loss in ITP zones had occurred in the FMU during this period. These audit reports did not mention the use of satellite imagery in their methodologies.</li> <li>• 65.9% of forests in ITP zones in the FMU can be classified through remote sensing methods as “undisturbed”, contradicting MTCC guidance that ITPs should only target “severely degraded forests”.</li> </ul>	<ul style="list-style-type: none"> <li>• Auditors claim “there never had been any indigenous people’s land inside the TSFD certified area”, which contradicts documented cases of Orang Asli use of forest reserves in the state.</li> <li>• Auditors claimed that logging did not threaten or diminish Indigenous resource or tenure rights, in the same year one community complained of logging causing flooding and loss of foraging areas.</li> <li>• Auditors claimed that “all Orang Asli villages, reserves, and areas of sociocultural significance” were outside the FMU, which contradicts documented cases of Orang Asli use of forest reserves.</li> <li>• In the Terengganu FMU, between 2021 and 2024, not a single Indigenous community, had been visited.</li> <li>• The auditors consulted with JAKOA and the Terengganu Forestry Department on Indigenous issues, rather than with communities themselves.</li> </ul>
<p><b>All FMUs</b></p>	<ul style="list-style-type: none"> <li>• Of the 15 audit reports reviewed across all FMUs, only one made any mention of utilising satellite imagery.</li> <li>• 65,816ha of tree cover loss occurred between 2021-2023 within Class I Tiger Conservation Landscapes within FMUs, of which 22,921ha occurred in ITP conversion zones.</li> <li>• Between 2021 and 2023, 4,020ha of tree cover loss occurred within Central Forest Spine Ecological Linkages in certified FMUs.</li> <li>• No “Macro Environmental Impact Assessment” is publicly available.</li> <li>• Except for Pahang, only brief summaries of Forest Management Plans are available online, and maps are not included in such summaries.</li> <li>• Within the entire standards certification ecosystem, there is no independent oversight for procedural and factual inconsistencies made by SIRIM other than a single anonymous panel in the Department of Standards Malaysia, a department under the purview of the Ministry of Trade and Industry, who are the owners of SIRIM.</li> <li>• Neither the auditors nor the MTCS have established a cohesive complaints procedure. Information on the MTCC website on the complaints process is convoluted, with contact links broken or leading only to a general email address or contact form. The word “complaint” only appears once in the MTCS Standard.</li> <li>• Neither the auditors nor the MTCS have established a clear limit regarding what constitutes a withdrawal or suspension of a certificate.</li> </ul>	

## Recommendations

### Given these findings, we make the following recommendations to the Government of Malaysia:

- The Department of Standards Malaysia must temporarily suspend SIRIM QAS INTERNATIONAL as a notified Certification Body (CB) for the MTCS/PEFC.
- All State Forestry Departments to adopt an immediate moratorium on all forestry activities in ITP concessions across Malaysia.
- The Department of Environment to halt approvals of environmental impact assessments (EIAs) for ITPs in line with the above point.
- In both policy documents and upcoming environmental legislation (i.e the Climate Change Act), Malaysia must legislate the target to maintain natural forest cover above a certain minimum percentage of land cover, which should be set at Malaysia's current extant natural forest cover. Further, this adjustment should align the definition of forest with the definition of 'Naturally Regenerating Forest' from the Food and Agriculture Organisation.
- The relevant agencies should spearhead constitutional amendments to reflect the right of Malaysians to a clean environment, and of its Indigenous communities to legal ownership of their Traditional Territories.

### Additionally, the MTCC should ensure that MC&I SFM Standard:

- Explicitly recognises the customary rights of Indigenous peoples to their Traditional Territories beyond legal requirements, and require that forest managers are responsible for 1) Documenting the extent of Traditional Territories through participatory mapping with Indigenous communities, 2) Excluding such Territories from the FMU and 3) Ensuring that Free, Prior, Informed Consent (FPIC) is implemented for ALL forest management (and conversion) operations.
- Adopt 1st July 2012 as a final cut off date for certification of **ALL** conversion areas within the FMU whereby
  - ITPs established after that year are explicitly excluded from certification,
  - A verification system is developed to ensure that logs sourced from conversion areas are excluded from certification and;
  - A methodology is developed to calculate and enforce the 5% conversion rule, in reference to this cut off-date.
- Adopt rigorous limitations to logging and conversion in nationally-important EIFAs. This should include an explicit requirement to exclude such EIFAs, including but not limited to, Environmentally Sensitive Rank 1 and 2 Areas, Tiger Habitats, Central Forest Spine connectors and nationally and regionally-important large landscapes, from the certification scope.
- Adopt rigorous criteria to restrict forest managers from reducing the scope of protected forest management functions in the FMU to facilitate logging of previously-protected areas.
- Explicitly require forest managers to make documentation related to the FMU transparent, including forest management plans, forest management functions, environmental impact assessments, concession maps and others.
- Clearly outline strict criteria for a suspension, including what activities count as major and minor non-conformities, and how many non-conformities lead to a suspension, including provisions to suspend certification if non-conformities are not resolved by the next audit; coupled with rigorous monitoring protocols.
- **For all above recommendations to be taken into account in the on-going revision of the MTCS ST 1002:2021 and MTCS ST 1003:2021 standard by the Standard Review Committee.**

**Further, we recommend that the PEFC:**

- Temporarily suspend endorsement of the MTCS pending a review of the MC&I (SFM) Standard and current auditing practice, which would ensure that the MTCS Standard's requirements on Indigenous rights, conversion and ecologically important forest areas (EIFAs) are aligned, on paper and in practice, with the PEFC ST1003: 2018 and relevant Indigenous rights covenants, such as the United Nations Declaration on the Rights of Indigenous Peoples.
- Establish an independent, national-level auditing oversight panel outside of existing government bodies which periodically monitors audit reports for factual accuracy, impartiality and effectiveness of methods, and which handles public complaints as in the below point.
- Establish a transparent and effective complaints system for FMUs, including:
  - Establishing a mechanism for stakeholders to submit complaints to the forest manager, auditors and oversight panel as in the above point.
  - Establishing a mechanism whereby complaints from certain key stakeholders, or the frequency of complaints, automatically triggers a suspension and review into the FMU
  - For the panel in the above point to proactively engage with Indigenous communities and CSOs in managing complaints.
  - For the mechanism to include anti-SLAPP protections, and remove clause that pauses complaints processes if legal cases are ongoing

**Together, we recommend that both the PEFC and MTCC:**

- Establish strict requirements for auditors, including requiring auditors to:
  - Be fully independent of Forest Managers, State and Federal governments, timber companies and associated lobbying organisations, such as by instating a payment system where auditors are paid by standard bodies, not by their clients.
  - Require auditors to arrange their audits independently of the companies they assess, using separate logistics, and conduct audits without prior announcement.
  - Be demonstrably trained in enforcing the requirements in the above point.
  - Be trained and qualified in assessing Free, Prior, Informed Consent (FPIC) processes and Indigenous rights.
  - Be demonstrably trained and qualified in utilizing satellite imagery and other forms of spatial data to monitor logging operations.
  - Be demonstrably trained and qualified in independently assessing FMUs without relying on engagements with and data provided by state authorities.
  - In cases where there are discrepancies in guidance from standards, be demonstrably trained to audit in favour of compliance with the most demanding applicable standard, and in separating MTCS and PEFC Standards from State Legislation.

**Finally, we recommend that purchasers of Malaysian timber:**

- Temporarily suspend any endorsement or acceptance of both MTCS and PEFC standards for sustainable timber procurement pending the above recommended reviews into forest management practices.

## Methodology

As of 1 January 2025, there are seven certified FMUs in Peninsular Malaysia: namely Johor, Negeri Sembilan, Pahang, Perak, Selangor, Terengganu and Kedah. While there are a broad range of environmental and social issues associated with the Malaysian timber industry, this report addresses three focus areas: 1) Rights of Indigenous peoples and local communities, 2) damage to Ecologically Important Forest Areas (EIFA) and 3) conversion.

Using the methodologies described below, this report aims to 1) assess the accuracy of claims made in audit reports, 2) identify issues not captured by audit reports and 3) identify gaps in PEFC and MTCS Standards, in relation to the three focus areas identified above.

This report interprets requirements related to the above three aspects according to the PEFC ST1003: 2018 Standard primarily (**which is valid until 2024; within the dates of audit reports reviewed**) and the MC&I (SFM) Standard (MTCS ST 1002:2021). To assess the effectiveness and compliance of the existing certification mechanism against the PEFC and MC&I standards, RimbaWatch conducted a review of audits of, and activities within, these seven FMUs between 2021 and 2024. To review audits of these FMUs, RimbaWatch collected the SIRIM audit reports of each FMU for each of these years. While noting that there are different stages of audits and associated reports, the scope of this review is limited to the Surveillance and Recertification reports only, and the following reports were reviewed, based on availability at time of authorship:

FMU Name	2021	2022	2023	2024
Kedah	Not available	1st Surveillance 1st Cycle	2nd Surveillance 1st Cycle	Not available
Perak	3rd Surveillance 4th Cycle	4th Surveillance 4th Cycle	Recertification Audit 4th Cycle	Not available
Selangor	3rd Surveillance 4th Cycle	Not available	Not available	Not available
Negeri Sembilan	3rd Surveillance 4th Cycle	Not available	Recertification Audit 4th Cycle	Not available
Johor	1st Surveillance 1st Cycle	2nd Surveillance 1st Cycle	3rd Surveillance 1st Cycle	Not available
Pahang	3rd Surveillance 4th Cycle	4th Surveillance 4th Cycle	Recertification Audit 4th Cycle	Not available
Terengganu	3rd Surveillance 4th Cycle	4th Surveillance 4th Cycle	Recertification Audit 4th Cycle	1st Surveillance 5th Cycle

The scope of these reviews are limited to a general review on the factual accuracy of statements made in audit reports, and statements made in relation to Criteria 6.3.2, 8.1.4 and 8.4.2 of the PEFC ST1003: 2018 Standard, and Criteria 6.10, 6.10.1, 2, 3 and 4 of the MC&I, which relate to Rights, EIFAs and Conversion.

To review activities within these FMUs, RimbaWatch monitored satellite imagery from a range of sources including visual and automated analysis of satellite imagery from Planet Labs PLC, Hansen et al tree cover loss data and Vancutsem et al data on forest condition classifications. The methodology for automated analysis can be viewed in full in the appendix. This automated analysis provides estimations based on the best-available and publicly accessible data, in absence of transparency of spatial data from FMU managers.

To define FMUs, RimbaWatch adopted an in-house spatial dataset of Permanent Forest Reserve (PRF) boundaries, and overlaid maps related to concessions, EIFAs and Indigenous Traditional Territories (ITT). This included maps of Environmentally Sensitive Areas from Federal, State and District-level spatial planning documents, species habitat data from the World Wildlife Fund, water catchment, settlement data and others. Further, **all claims related to forest conversion are referenced according to existing industrial timber plantation (ITP) conversion concessions solely derived from official maps, such as Central Forest Spine masterplans, state-level Forest Management Plans (FMPs), forest reserve maps and individual environmental impact assessments.** A list of spatial data used is identified below.

It must be noted that this review defines forests as Naturally Regenerating Forests, predominantly composed of trees established through natural regeneration (FAO, 2010).

Spatial Dataset	Source	Notes	Availability
Tree Cover Loss	Hansen et al., 2020-2024	Directly downloaded	<a href="#">Link</a>
Forest Cover	Vancutsem et al., 2021	Classifies forests as undisturbed, degraded or non-forest (other).	<a href="#">Link</a>
Permanent Forest Reserves, 2012	RimbaWatch	Directly downloaded	<a href="#">Link</a>
Indigenous Traditional Territories	Various sources, collated by the Center for Orang Asli Concerns and RimbaWatch	Collation of community maps prepared by organisations including the Center for Orang Asli Concerns (COAC)	<a href="#">Link</a>
Environmentally Sensitive Areas	State and District-level development plans	Manually georeferenced by RimbaWatch	N/A
Industrial Timber Plantations	Forest Management Plans, Approved Environmental Impact Assessments, etc.	Manually georeferenced by RimbaWatch or directly downloaded	<a href="#">Link</a>
Class I Tiger Conservation Landscape	WWF, National Tiger Conservation Action Plan	Manually georeferencing of directly downloaded dataset by RimbaWatch	N/A
Chini UNESCO Reserve	Draft Chini Special Area Plan	Manual Georeferencing	N/A
Central Forest Spine	Central Forest Spine Masterplan	Manually georeferenced by RimbaWatch	<a href="#">Link</a>

# Findings

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## Rights of Indigenous People and Local Communities

# Findings: Rights of Indigenous People and Local Communities

## What Do the Standards Require?

### **The PEFC ST1003: 2018 Standard states that:**

“The standard requires that property rights, tree ownership and land tenure arrangements shall be clearly defined, documented and established for the relevant management unit. Likewise, legal, customary and traditional rights related to the forest land shall be clarified, recognised and respected.”

“The standard requires that forest practices and operations shall be conducted in recognition of the established framework of legal, customary and traditional rights such as outlined in ILO 169 and the UN Declaration on the Rights of Indigenous Peoples, which shall not be infringed upon without the free, prior and informed consent of the holders of the rights, including the provision of compensation where applicable. Where the extent of rights is not yet resolved, or is in dispute, there are processes for just and fair resolution. In such cases forest managers shall, in the interim, provide meaningful opportunities for parties to be engaged in forest management decisions whilst respecting the processes and roles and responsibilities laid out in the policies and laws where the certification takes place.”

### **The MC&I (SFM) Standard states that:**

“Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free, prior and informed consent to other agencies and/or parties.”

“With respect to activities that may affect such rights, forest managers shall recognise, respect and collaborate with holders of duly recognised legal or customary tenure or use rights within relevant federal, state and local laws”

### **The MC&I (SFM) Standard Indicator Principle 3 states that:**

“Indigenous peoples shall control forest management on their lands and territories unless they delegate control with free, prior and informed consent to other agencies and/or parties”

“Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples.”

## Failing #1: MTCS Standard and Auditors Restrict Indigenous Rights

**Summary: The MC&I (SFM) Standard, while appearing to uphold Indigenous rights under Principles 2 and 3 of the Standard, effectively limits those rights to only what is recognised under state and federal law through its Indicators. This contradicts PEFC's Criteria 6.3.2, which requires recognition of Indigenous territories beyond legal frameworks. Auditors frequently reinforce this restrictive interpretation, dismissing Indigenous land claims where such claims are not legally recognised by the state.**

Criteria 6.3.2 of the PEFC Standard states that:

*“forest practices and operations shall be conducted in recognition of the established framework of legal, customary and traditional rights such as outlined in ILO 169 and the UN Declaration on the Rights of Indigenous Peoples, which shall not be infringed upon without the free, prior and informed consent of the holders of the rights”.*

Article 26 of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), in turn, states that:

*“Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired”*

*“Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired”*

*“States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with due respect to the customs, traditions and land tenure systems of the indigenous peoples concerned”*

Therefore, the PEFC recognises and requires that forest operations recognise the customary and traditional tenure rights of Indigenous people to their Traditional Territories beyond their legal and state-recognised land rights. This is a prudent requirement, as it is well-recognised that the Orang Asli have extremely limited legal recognition of their Traditional Territories in Peninsular Malaysia, as discussed above.

While, theoretically, Principles 2 and 3 of the MC&I (SFM) Standard states that: “Local communities with legal or customary tenure or use rights shall maintain control” and “Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples”, the Standard qualifies these Principles with Indicators, which limit the land rights of Indigenous peoples to those which are state-recognised.

For example, Principle 2 of the Standard is associated with Indicator 2.2.1, which states “Availability of documentation of legal or customary tenure or use rights of local communities within relevant federal, state and local laws in the FMU” and Indicator 2.2.2 which states “forest managers shall recognise, respect and collaborate with holders of duly recognised legal or customary tenure or use rights within relevant federal, state and local laws.” Further, Principle 3 is associated with Indicator 3.1.1 which states “Availability of documentation of the customary rights of indigenous peoples’ lands within relevant federal, state and local laws.”

This is contrary to the intentions of Criteria 6.3.2 of the PEFC, which specifically and explicitly requires recognition of Indigenous territories to go beyond legal recognition. Therefore, the MC&I (SFM) Standard is, in itself, detrimental to Indigenous rights and Criteria 6.3.2 of the PEFC.

The auditors, SIRIM, meanwhile, have taken a clear stance against the recognition of Indigenous rights beyond legal requirements. In a public response to RimbaWatch comments on Indigenous rights violations in the Perak FMU, SIRIM stated that there were no Indigenous rights conflicts when accounting for Peninsular Malaysia's legal frameworks, and that the blockade cited by RimbaWatch was "not in accordance with the legal requirements for Peninsular Malaysia" (NST, 2023). In the 4th Surveillance 4th Cycle and 4th Cycle Recertification reports for the Pahang FMU, SIRIM stated that:

*"There were no legal indigenous peoples' land rights within the Pahang FMU. Legal rights in the form of Orang Asli Reserve were all outside the forest reserves."*

*"Orang Asli or local communities did not have right of ownership over land in the PRF".*

Similar statements can be found in audit reports of other FMUs, such as the Terengganu FMU, where the 4th Surveillance 4th Cycle report which stated "there never had been any indigenous people's land inside the Terengganu FMU certified area", the Selangor FMU where the 3rd Surveillance 4th Cycle report stated "Management of land within the PRF by Orang Asli is not applicable since it is legally owned, managed and controlled by the SSFD" and the Negeri Sembilan FMU where the 3rd Surveillance 4th Cycle stated "The FMU's forestry operations had not extended into the Orang Asli Reserves".

In the most concerning example of SIRIM misinterpreting Indigenous rights, in the public summary of the Recertification Audit 4th Cycle for the Pahang FMU, the auditors stated that:

*"The Pahang State had recognized the right of the Orang Asli and had established 'Orang Asli Reserve' (Section 7 of Aboriginal Peoples Act 1954) that managed by the JAKOA. Pahang state does not use the Orang Asli Reserves and hence the question of delegation of control with free, prior and informed consent does not arise"*

Therefore, in this case, the auditors have made it clear that free, prior and informed consent, a key principle of both the PEFC and MC&I Standard, is neither necessary nor recognised in the Pahang FMU.

## Failing #2: Auditors Blatantly Ignored Indigenous Rights Violations

**Summary: We have identified ten case studies where certification audits for a number of FMUs contain misleading statements regarding the rights and livelihoods of Indigenous Orang Asli, including cases where well-documented Indigenous rights conflicts which occurred during the scope of the audit are overlooked.**

### Case Study 1:

In the public summary of the 3rd Surveillance 4th Cycle for Perak FMU, it is stated that

*“the audit found no record of any dispute or complaint made by local/Orang Asli communities on logging contractors as related to any issue”*

*“there is no issue of forest management practices conducted on indigenous people’s lands or that threaten to diminish their resources or tenure rights”*

These statements are incorrect. In the exact same report, three complaints were recorded in the appendix. These include a complaint by the Jaringan Orang Asal SeMalaysia calling for Perak’s MTCS certificate to be revoked due to “almost two years of unresolved disputes in Orang Asli ancestral land”, specifically citing logging activities near Sungai Papan and Ong Jangking/ Air Laba villages within the Air Chepam Forest Reserve, and complaints by representatives of Kampung Ong Jelmol and Kampung Tasik Asal Cunex objecting to logging activities in the Air Chepam Forest Reserve. Further, logging activities in the Air Chepam Forest Reserve occurring within the audit period had been well documented in mainstream media, including in news reports (The Star, 2020) and a documentary published on YouTube (R.AGE, 2021).

It must be noted that the documentary, which focused on logging operations at Ong Jangking, documented a number of issues including pollution of water sources and the demolition of logging blockades established by communities.

It is therefore inaccurate and illogical for the auditors to claim that there were no records of complaints made by local communities on logging when three such complaints are published in the same report.

Furthermore, the response by the auditors on each of the complaints are that:

*“Due to outbreak of Covid 19 and recommendation by JAKOA the site visit to the villages has been postponed”*

Therefore, it appears that these complaints were discredited on account of the auditors being unable to make a physical site visit to the villages, and the only consultations made by the auditors on these complaints was with a government agency.

## Case Study 2:

In the public summary of the 3rd Surveillance 4th Cycle for Perak FMU, it is stated that:

*“the Perak FMU recognized and support the legal rights of the Orang Asli.”*

However, this statement is made after the Chief Minister of Perak, Ahmad Faizal Azumu, stated that “there is no such thing as ancestral land for Orang Asli under the state constitution” and “there is no specific land gazetted for any races in the state” (Malay Mail, 2019). Further, this statement was made during a period where Indigenous communities were arrested for “obstructing logging activities” (The Sun, 2019), and after a number of cases of state authorities demolishing blockades established by Indigenous communities, including one case where an Indigenous community was threatened with arrest if they continued with protests (Malaysian Insight, 2020). It is clear, therefore, that Perak state authorities have demonstrated hostility towards Indigenous communities on issues related to logging.

## Case Study 3:

In the public summary of the 4th Cycle Recertification Audit for Perak FMU, it is stated that:

*“It was observed that there was no recorded civil court case pertaining to legal or customary tenure or use rights filed against the KSFD”*

Firstly, the acronym “KSFD” could refer to the Kedah or Kelantan State Forestry Department, and not the Perak State Forestry Department, which is a significant mistake made by the auditors. If this statement is understood to be referring to the Perak FMU, at the time of the audit in October 2023, there was at least one pending civil court case pertaining to customary tenure within the FMU, namely a suit filed in June 2019 by Pam Bin Yeek, representing 127 Indigenous people from Kampung Tasik Asal Cunex, against the Perak State Government regarding logging in their customary land within the Air Chepam Forest Reserve (PEKA, 2024).

## Case Study 4:

For the same public summary report, the auditors included RimbaWatch’s comments surrounding civil court cases regarding the Air Chepam Forest Reserve, but under the “stakeholder” column of the table, stated:

*“Unwilling an identity be revealed”*

The auditors did not contact RimbaWatch to ask if we were willing to have our identity revealed and we have no record of any communication from them regarding the matter.

## Case Study 5:

In the public summary of the 3rd Surveillance 4th Cycle Audit for the Selangor FMU, the auditors stated that:

*“To date no land claims related to PRFs were raised in Selangor FMU.”*

This statement is misleading as it ignores well-documented overlaps between Indigenous traditional territories and permanent forest reserves in the state, including in North Kuala Langat Forest Reserve (MalaysiaKini, 2020) and the Hulu Gombak Forest Reserve (MalaysianInsight, 2023).

## Case Study 6:

In the public summary of the 4th Cycle Recertification Audit for the Negeri Sembilan FMU, the auditors stated that:

*“Interviews with the indigenous communities and Jabatan Kemajuan Orang Asli (JAKOA) confirmed that any logging activities only occurred in the PRFs and have not threatened the land use and forest resources of the Orang Asli communities in Negeri Sembilan FMU.”*

However, for the year of that audit, SIRIM had acknowledged that logging had impacted water sources of Indigenous communities living near Bukit Galla Forest Reserve, and at least 50 community members from the villages of Sungai Mahang, Belihoi and Tekir attended a protest objecting to logging activities in the Reserve (Sinar Harian, 2023).

## Case Study 7:

In the public summary of the 4th Surveillance 4th Cycle for the Pahang FMU, the auditors stated that:

*“No evidence that the Orang Asli communities in Pahang FMU [sic] their traditional forest-related knowledge”*

In stating this, the auditors make a broad and uncited claim that Indigenous communities in Pahang have abandoned traditional ecological knowledge (TEK), when there is sufficient recently-published evidence to suggest that the utilisation of Indigenous TEK remains widespread in the state (i.e Rudge, 2023; Lambin, 2019; Shah et al., 2025).

## Case Study 8:

In the public summary of the 3rd Surveillance 4th Cycle and 4th Surveillance 4th Cycle audit reports for the Terengganu FMU, the auditors state that:

*“there never had been any indigenous people’s land inside the TSFD certified area”*

This statement is misleading as it implies that Indigenous people had never inhabited areas within the current FMU, and it contradicts documented cases of customary land use within the FMU, such as the use of the Hulu Terengganu and/or Tekam Forest Reserve by the semi-nomadic Semoq Beri community of Kampung Sungai Berua (Malay Mail, 2023), and the existence of orchards in the Cherul Forest Reserve as documented in an HCVF Management Plan (Rosli et al., 2023).

## Case Study 9:

In the public summary of the 4th Surveillance 4th Cycle audit report for the Terengganu FMU, the auditors state that:

*“The issue of forest practices of the Terengganu FMU/logging contractors threatening or diminishing, either directly or indirectly, the indigenous peoples’ resources or tenure rights did not arise.”*

This directly contradicts a news report published during the year of the audit, which documented impacts to the Indigenous Sungai Berua community, including how logging had impacted their traditional food gathering areas, and how flooding which the community associated with logging in the FMU had destroyed a school and three houses (Malaysian Insight, 2023).

## Case Study 10:

In the public summary of the 4th Cycle Recertification audit report for the Terengganu FMU, the auditors state that:

*“All Orang Asli villages, reserves, and areas of sociocultural significance were confirmed to be located outside the Terengganu FMU”.*

This statement is misleading as it contradicts evidence as above on food gathering areas for the Sungai Berua community, and the existence of orchards in the Cherul Forest Reserve as documented in an HCVF Management Plan (Rosli et al., 2023).

## Failing #3: Only a Few Indigenous Communities Visited for Audit Reports, Overreliance of Consultations with Government Agencies

**Summary: Between 2021 and 2024, auditors consulted only a small fraction of Indigenous villages, just 5% in Perak, 3.4% in Pahang, and none in Terengganu, despite complaints about logging from communities in those three FMUs. Auditors justified this non-consultation by citing issues such as a lack of road access, despite the availability of alternative consultation methods. Further, the auditors relied heavily on consultations with JAKOA, a government agency criticised for misrepresenting Indigenous interests, rather than engaging directly with affected communities.**

Between 2021 and 2023, the auditors of the Perak FMU only visited thirteen Indigenous villages in Perak. For the villages with recorded complaints over logging, including Kg. Air Papan, Kampung Cunex, Ong Jelmol, Kampung Ong Jangking, and Kampung Cenawing, none whatsoever were visited by the auditors. For the 3rd Surveillance 4th Cycle for the Perak FMU, the justification for not conducting site visits was that there was an outbreak of COVID-19 and they were advised not to by JAKOA, a government agency, and for the 4th Cycle Recertification report, the auditors stated that:

*“consultation with Kg. Air Papan villagers was not feasible as they refused to be consulted, and the lack of road access prevented engagement with the other villages.”*

Further, the auditors also conducted consultations with JAKOA for the 4th Surveillance 4th Cycle report to make the conclusion that forest management practices on local communities' lands have not threatened or diminished Indigenous rights.

It is concerning that the auditors had only visited thirteen villages in three years, while there are at least 255 government-registered Indigenous villages in Perak (JAKOA, 2018). This means that the coverage of villages represented by site visits is 5%. Further, the justification that the auditors could not consult with the villages because of COVID-19 or lack of road access is insufficient, as alternatives to physical site visits to the villages, such as virtual interviews or arrangements to conduct interviews in a more accessible location, are available. It is further concerning that the auditors relied on consultations with JAKOA, as it is a government agency primarily staffed by non-Orang Asli that has been accused of being “paternalistic”, of “misrepresenting the Orang Asli in decision-making processes” and of siding with companies and the government in land disputes (as detailed above), which leads to questions of why a controversial non-Indigenous government agency is being treated by auditors as a representative of Indigenous experiences on logging (Nordin et al., 2016).

In the Pahang FMU, between 2023 and 2024, only nine Indigenous villages had been visited, out of 261 government-registered villages in the state, representing just 3.4%, and in the 3rd Surveillance 4th Cycle report they conclude that there was “no evidence of significant conflict or grievance as verified through interviews with JAKOA and Orang Asli villagers during the Audit”.

In the Terengganu FMU, between 2021 and 2024, despite the auditors making multiple sweeping statements on the protection of Indigenous rights in the FMU, not a single Indigenous community, including the three government-registered villages, had been visited. For example, in the 4th Cycle Recertification Audit, the auditors stated that:

*“All Orang Asli villages, reserves, and areas of sociocultural significance were confirmed to be located outside the Terengganu FMU, as evidenced through maps provided by TSFD management”*

Further, in the 1st Surveillance 4th Cycle audit report, it is stated that:

*“On indigenous peoples’ rights, there were mechanisms in place to resolve disputes over tenure and use rights through meetings held with the Department of Orang Asli Development or Jabatan Kemajuan Orang Asli (JAKOA).”*

Therefore, in the Terengganu FMU, information on Indigenous rights had been requested from the Terengganu Forestry Department, which is one of the entities the auditors was supposed to audit, and with JAKOA, a government agency - while no Indigenous communities were consulted.

# Findings

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## Conversion Timber

# Findings: Conversion Timber

## What Do the Standards Require?

### **The PEFC ST1003: 2018 Standard states that:**

“forest conversion shall not occur unless in justified circumstances where the conversion:

- b) entails a small proportion (no greater than 5 %) of forest type within the certified area;
- c) does not have negative impacts on ecologically important forest areas, culturally and socially significant areas, or other protected areas”

### **The MC&I (SFM) Standard states that:**

*“Forest conversion to other land uses shall not occur, except in circumstances where conversion:*

- 1.entails a very limited portion of the FMU; and*
- 2.does not occur on high conservation value areas; and*
- 3.does not occur on or negatively impact ecological corridors and environmentally sensitive areas identified by the relevant authorities”*

Further, the MC&I Standard identifies a limited portion as *“not more than 5% of the total area of the certified FMU”*

## Failing #4: Conversion Areas Inconsistently Excluded from Scope of Certification

**Summary: We have identified two case studies where SIRIM audit reports failed to exclude conversion areas from certification scopes in key FMUs. This is especially concerning in FMUs like Kedah, Perak, Pahang, and Terengganu, where significant amounts of the FMU are earmarked for conversion. Some audit statements on conversion also contradict deforestation data detected by RimbaWatch.**

Previously enforced Interpretation Guidelines for the MC&I Standard provided assurance that logs obtained from conversion areas will not be eligible for certification. However, while these Interpretation Guidelines were no longer enforced after 2021, it is unclear from a review of SIRIM audit reports whether they are still implemented in practice, as conversion areas are inconsistently excluded from the scope of certification.

For example, SIRIM's reports for the Selangor and Johor FMUs explicitly state that industrial timber plantation (ITP) areas had been excluded from the scope of certification. However, in the Kedah, Perak, Negeri Sembilan, Pahang and Terengganu audit reports, there is no mention of the exclusion of any conversion areas, whether it has already been converted or earmarked for conversion, for ITP or any other purpose, from the scope of recertification. Further, the maps of FMUs attached for these reports do not identify or exclude any conversion areas, including ITP zones. Separately, it is also worth noting that maps attached in public summaries appear to be outdated; the map of the Pahang FMU attached in SIRIM's Recertification Audit (4th Cycle) of the Pahang FMU, published in June 2024, includes an 8,500ha portion of the Bukit Ibam Forest Reserve which was degazetted in November 2020 and deforested for oil palm.

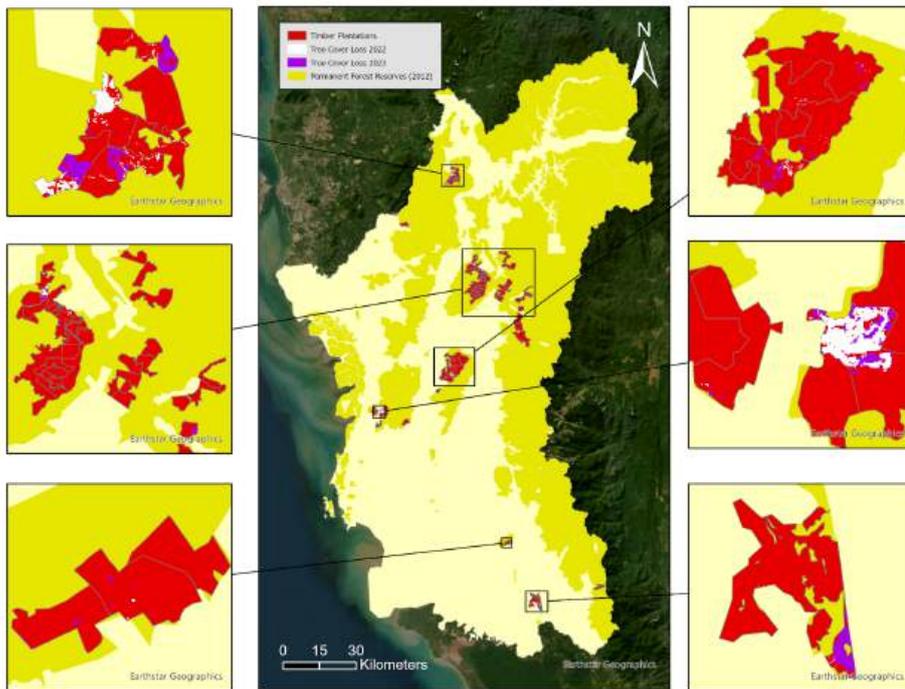
Kedah, Perak, Pahang and Terengganu, the very FMUs where conversion areas have not been excluded, are the FMUs in Peninsular Malaysia that have a significant amount of natural forest earmarked for conversion in ITP zones. We find that these states have earmarked 14,548ha, 28,573ha, 56,911ha and 6,881ha of forest for conversion in ITP zones respectively, leading to a combined 106,913ha of potential conversion zones within FMUs that have not been excluded from auditing scopes. Further, Pahang, Kedah and Terengganu are among the states that have exceeded the 5% conversion limit, as will be discussed below. It is therefore concerning that SIRIM's audits for those FMUs do not appear to make any provisions for the exclusion of conversion timber from these states from the scope of certification.

### Case Study #11

In the public summary of SIRIM's 4th Cycle Surveillance Audit for the Perak FMU, published in September 2023, SIRIM states that

*“there was no new conversion of the PRF to forest plantations or other non-forest land uses during the intervening period since the last audit”*

The previous audit was published on 15 July 2022. This statement is therefore misleading as, for the years 2022 and 2023, RimbaWatch detected at least 1,171ha of tree cover loss within ITP zones in the Perak FMU. This is illustrated on the next page.

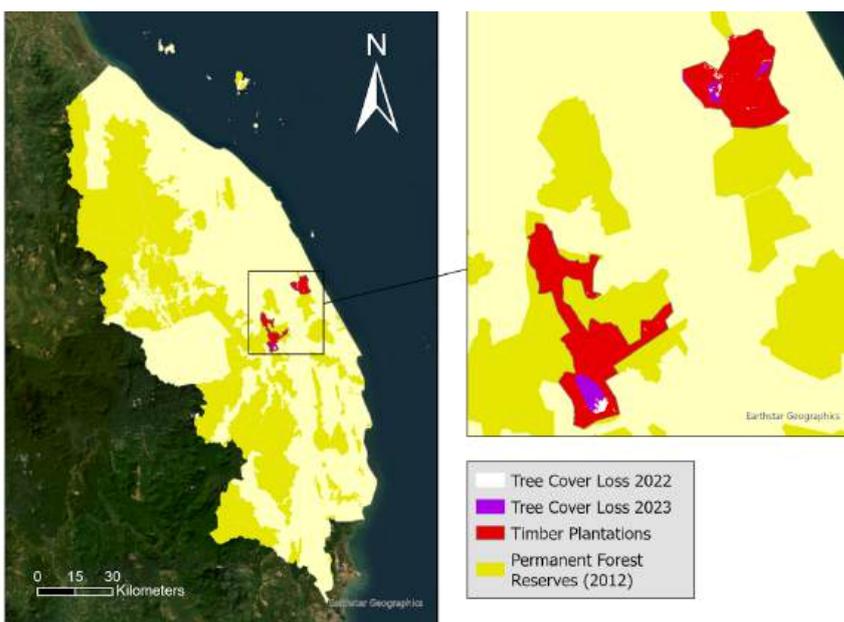


**Figure 2: Tree cover loss Perak FMU, 2022-2023**

And the December 2024 report states:

*“there has been no new conversion of natural forest into nonforest land use within the Terengganu FMU since the last audit”.*

This statement is misleading as, between 2021 and 2024, RimbaWatch detected 652ha of tree cover loss within ITP zones for the Terengganu FMU, as illustrated below.



**Figure 3: Tree cover loss in Terengganu ITP areas, 2021-2024**

## Case Study #12

In the public summary of SIRIM’s Surveillance 3 Audit (4th Cycle), Surveillance 4 Audit (4th Cycle), Recertification Audit (4th Cycle) and Surveillance 1 Audit (5th Cycle) of the Terengganu FMU, published in September 2022, June 2023, May 2024 and December 2024 respectively, the first three reports state:

*“With regard to Criterion 6.10, there was no new conversion of the PRF to forest plantations or other non forest land uses during the intervening period since the last audit”*

## Failing #5: Unclear how Auditors Utilize Satellite Imagery

In a response SIRIM made towards a RimbaWatch press release in 2023, SIRIM claimed that they used both satellite imagery and drones to conduct audits. However, it is unclear how this is conducted in practice. For example, of the 15 audit reports reviewed, only one made any mention of utilising satellite imagery. This was the 4th Cycle Recertification Audit for the Perak FMU, which stated that:

*“a review of satellite imagery from September 2023 indicates no new road construction or harvesting activities within the Air Chepam Forest Reserve.”*

In relation to Case Studies #11 and #12, related to SIRIM’s 4th Cycle Surveillance Audit for the Perak FMU and SIRIM’s Surveillance 3 Audit (4th Cycle), Surveillance 4 Audit (4th Cycle), Recertification Audit (4th Cycle) and Surveillance 1 Audit (5th Cycle) of the Terengganu FMU, the auditors did not disclose in these reports whether satellite imagery was utilised in their methodologies.

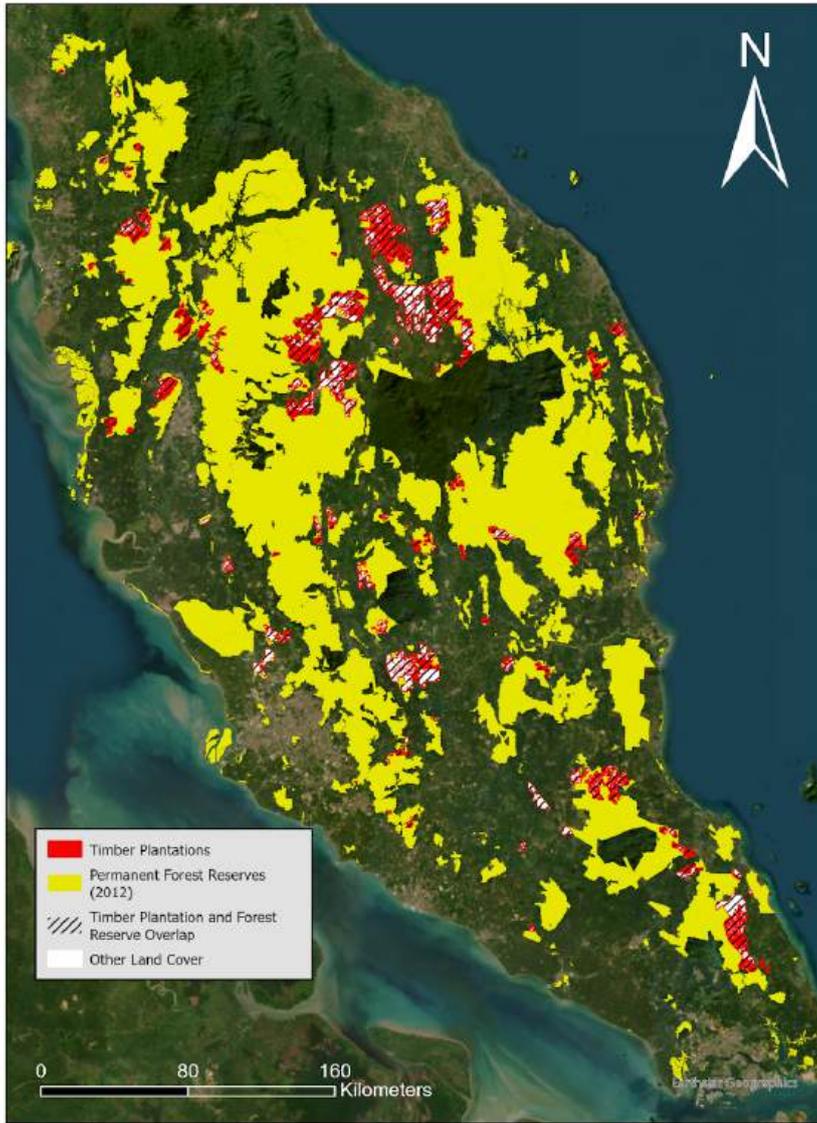
Illustrating this, the auditing schedule included in the Public Summary of the 4th Cycle Surveillance Audit for the Perak FMU mentioned a meeting with FMU representatives and review of documents and records at the “Ibu Pejabat Perak FMU”. Further, documents were reviewed from the Hulu Perak Forest District Office and various Forest Ranger and Forest Checking offices. A similar methodology is implemented for the audits of the Terengganu FMU, whereby documents from the Terengganu State Forestry Department were reviewed. While a number of ad-hoc site visits were conducted by the auditors which would have facilitated the use of drones, it is unclear how an independent, systematic review of conversion of natural forest in all areas of the FMU could be achieved solely through a review of documents prepared by the State Forestry Departments, without additional review of the latest publicly available satellite imagery.

## Failing #6: Conversion Areas Exceed 5% and Nationally-Determined Limits

**Summary: Our analysis shows that two certified FMUs, Pahang and Kedah, exceed the 5% forest conversion limit set by the PEFC and quotas set by the National Land Council, when accounting for both already-converted and earmarked conversion zones.**

The PEFC Standard requires that conversion is limited to a proportion no greater than 5% of forest type within the certified FMU.

RimbaWatch possesses boundary data of ITP zones (referred to as “Forest Plantations” by the MTCS) within the seven certified FMUs. This boundary data is derived from official sources, including environmental impact assessments, state Forest Management Plans, the Central Forest Spine masterplan and other maps published by state Forestry Departments.



**Figure 4: Overview of ITP zones in Peninsular Malaysia FMUs**

Using this data, we calculated the total area of ITP zones, including areas already converted and areas earmarked, for each state. Using figures for the total FMU size from the latest available SIRIM audits, our assessment finds that two FMUs, as displayed in the table below, do not adhere to the 5% requirement when taking into account all natural forest which has already been converted, and that have been ear-marked to be converted in the FMU.

Further, the Pahang and Kedah FMUs have not just exceeded the 5% requirement set by the PEFC, but they have also exceeded the quota set by the National Land Council for “forest” plantations in 2012. The council set a quota of 36,030ha for Pahang, which had exceeded this quota by 63,260 hectares and 15,380ha for Kedah, which it had exceeded by 3,088ha. This is acknowledged in a 2022 Auditor-General Special Audit report on Forest Management and Environmental Impact.

State	FMU Area (ha)	Year of FMU Area	5% of FMU Area	ITP Zones in FMU	Percentage of ITP in FMU
Pahang	1,504,407.35	2024	75,220.4ha	99,290ha	6.6%
Kedah	341,976	2024	17,098.8ha	18,468ha	5.4%

## Failing #7: Conversion Occurs in Intact Natural Forests

**Summary:** The MTCC states that forest conversion should avoid natural forest, or target only natural forest that has already been degraded. However, RimbaWatch analysis shows that in four FMUs, Pahang, Kedah, Terengganu, and Perak, many ITP zones are in undisturbed forests. In two FMUs, most conversion targets undisturbed areas, contradicting the MC&I SFM Standard.

**Indicator 6.3.1 of the MC&I (SFM) Standard states that FMU managers should have:**

*“availability and implementation of forest plantation management guidelines to demarcate and protect natural forests, and measures to enhance natural regeneration, where necessary, in forest plantation areas”*

**Criterion 6.11 of the MC&I (SFM) Standard states that:**

*“conversion of severely degraded forests to forest plantations shall only occur if it adds economic, ecological, social and/or cultural value”, except in conditions where there is “credible evidence demonstrating that the area is neither recovered nor in the process of recovery”*

This implies that FMU managers should ensure that forest plantations should not affect measures to protect natural forests, but that in cases where it does encroach on natural forest it must be on forest that has already been degraded and is not in the process of recovery.

The table below identifies the condition of natural forests within ITP zones within four FMUs where significant conversion is occurring, according to the Vancutsem et al (2021) dataset. This dataset identifies natural forest conditions as “undisturbed” and “degraded”, according to the assumptions identified in their methodology.

State	ITP Zones in FMU	ITP Zones (Undisturbed)	ITP Zones (Degraded)	ITP Zones (Already Converted)	Percentage of ITP Zones Undisturbed
Pahang	99,290	24,316	32,595	42,379	24.5%
Kedah	18,468	8,037	6,511	3,920	43.5%
Terengganu	7,679	5,058	1,823	798	65.9%
Perak	32,741	21,209	7,364	4,168	64.8%

Therefore, within these four FMUs, conversion to ITPs will take place in forests classified as either degraded or undisturbed natural forests, and in two FMUs the majority of forests which are already earmarked for conversion are undisturbed; which is inconsistent with the indicator and criterion listed above.

# Findings

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## Ecologically Important Forest Areas (EIFAs)

# Findings: Ecologically Important Forest Areas (EIFAs)

## What Do the Standards Require?

### The PEFC ST1003: 2018 Standard states that:

*“The standard requires that management planning shall aim to maintain, conserve or enhance biodiversity on landscape, ecosystem, species and genetic levels”; and*

*“The standard requires that inventory, mapping and planning of forest resources shall identify, protect, conserve or set aside ecologically important forest areas”*

The Standard defines ecologically important forest areas as:

- 1. “Containing protected, rare, sensitive or representative forest ecosystems*
- 2. Containing significant concentrations of endemic species and habitats of threatened species, as defined in recognised reference lists;*
- 3. Containing endangered or protected genetic in situ resources;*
- 4. Contributing to globally, regionally and nationally significant large landscapes with natural distribution and abundance of naturally occurring species.”*

### The MC&I (SFM) Standard states that:

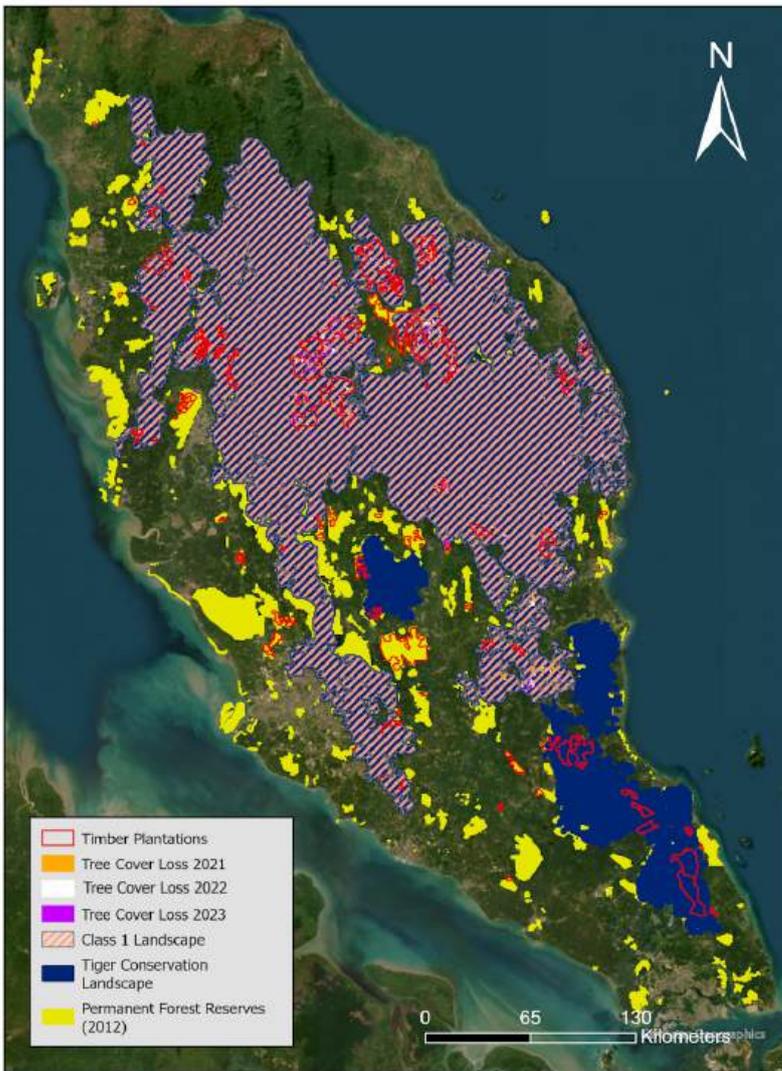
*“Forest conversion to other land uses shall not occur, except in circumstances where conversion:*

- 1. entails a very limited portion of the FMU; and*
- 2. does not occur on high conservation value areas; and*
- 3. does not occur on or negatively impact ecological corridors and environmentally sensitive areas identified by the relevant authorities”*

## Failing #8: Logging and Conversion Occurring in Class I Tiger Conservation Landscape

The Malayan Tiger is a national symbol of Malaysia and is classified as Totally Protected under the Wildlife Conservation Act 2010, and as Critically Endangered under the IUCN Red List for Threatened Species. Reportedly, there are less than 150 individual Malayan Tigers in 2022, down from 3,000 in the 1950s (WWF, n.d).

According to the National Tiger Conservation Action Plan (2008-2020), the forests of Main Range and Greater Taman Negara landscapes are Class I Tiger Conservation Landscapes of a global priority, due to their ability to support sustainable tiger populations. The Plan finds that, covering 49,181km<sup>2</sup>, this was the 5th largest contiguous Tiger Conservation Landscape in Asia, and “assumes a significant conservation value to the global tiger conservation effort”. This landscape, therefore, is a globally significant large landscape which contains endangered in situ resources and is a habitat and ecological corridor of a critically endangered species.



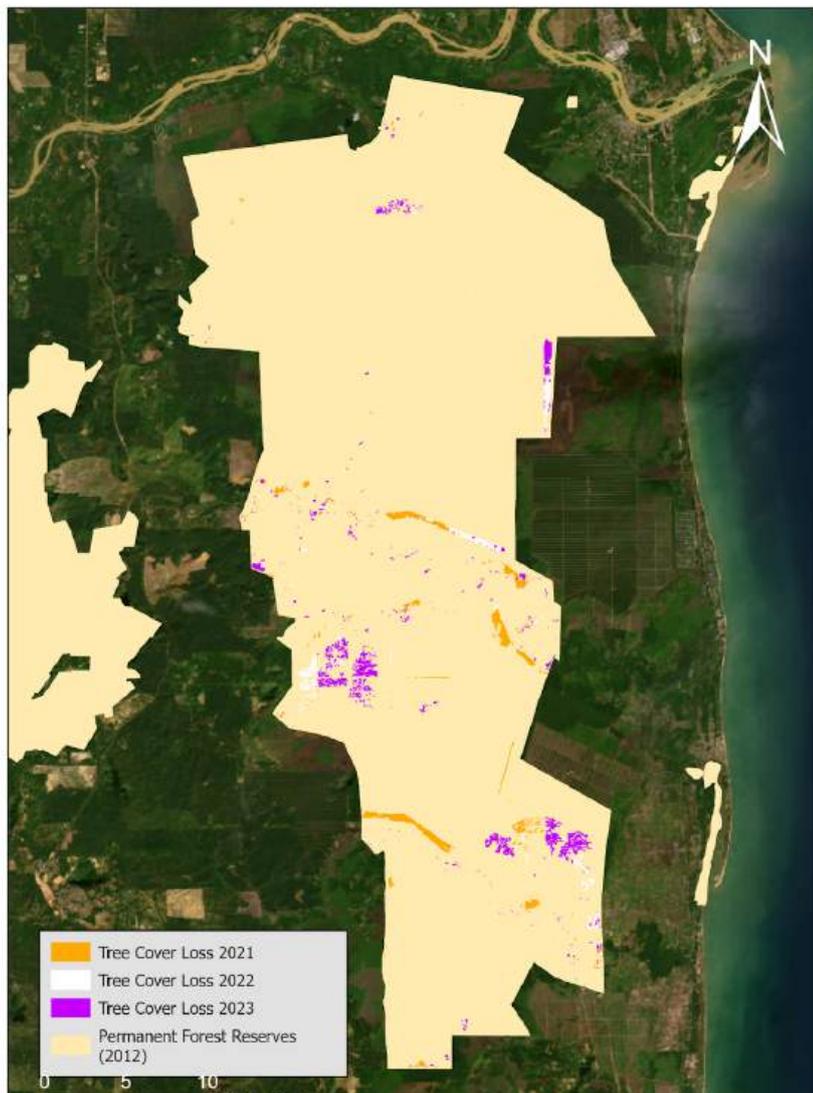
**Figure 5: Overview of tree cover loss in Tiger Conservation Landscape, Peninsular Malaysia 2021-2023**

The Plan states that the “long-term survival of the Malayan tiger largely depends on improving protection mechanisms within the country’s Forest Reserves”, as only two protected areas (PAs) in the Landscape met the spatial requirements to support viable populations, Further, the Plan notes that the forests in the landscape are “criss-crossed by logging roads. Tigers that often come into contact with humans or livestock at the edge of PAs and on roads outside of PAs tend to be subject to relatively high mortality rates.”

Through analysing tree cover loss data between 2021 and 2023 within Class I Tiger Conservation Landscapes in Peninsular Malaysia, we found that 65,816ha of tree cover loss has occurred within these Class I Landscapes within FMUs. Of these FMUs, Pahang had the most tree cover loss. Of the total amount of tree cover loss, 22,921ha occurred in ITP zones, with the remaining 42,895ha outside of such zones.

## Failing #9: Logging Occurring in Regionally Significant Peat Swamp Forest

According to a UNDP report, the South-East Pahang Peat Swamp Forest (SEPPSF) is “believed to be mainland Asia’s largest and least disturbed peat swamp forest remaining in a single virtually contiguous complex.” The report further states that the “SEPPSF comprises about 200,000 hectares or about 60 per cent of the surviving peat swamp cover in Peninsular Malaysia”. This forest ecosystem houses biodiversity which includes various endangered, critically threatened and vulnerable species including the Malayan Tiger, Asian Elephant, Sun Bear and a number of fish species which are endemic to the forest complex. The NGO Birdlife International has listed it as an Important Bird Area. The SEPPSF can, therefore, be considered a regionally and nationally significant large landscape.

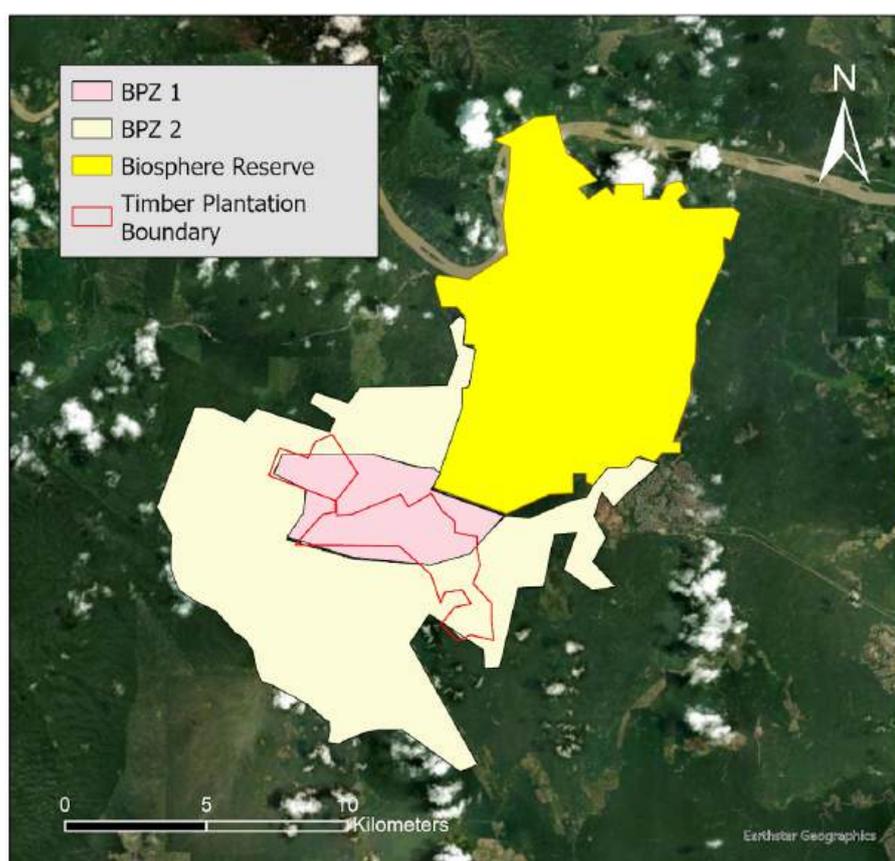


**Figure 6: Overview of tree cover loss in SEPPSF, 2021-2023**

The SEPPSF consists of four forest reserves, namely the Pekan, Nenasi, Kedondong and Resak reserves, within the Pahang FMU. Through analysing tree cover loss data between 2021 and 2023 with the boundaries of the SEPPSF, we found that 2,734ha of tree cover loss has occurred within the FMU that overlaps with the SEPPSF.

## Failing #10: Conversion Threatening Integrity of UNESCO Reserve

The Chini Forest Reserve in the Pahang FMU is adjacent to the Tasik Chini Biosphere Reserve, a protected area which received UNESCO recognition under the UNESCO Man and Biosphere (MAB) Programme in 2009. In 2021, UNESCO expressed concern that the Chini Reserve no longer met MAB criteria, citing “*newly cleared forest areas with intensive land conversion*” (UNESCO, 2021). In response, the Pahang State Government developed the Tasik Chini Special Area Plan and agreed to take steps to restore the Reserve, and as of 2023 its MAB status was still valid.



**Figure 7: Overview of zoning conflicts surrounding Chini Biosphere Reserve**

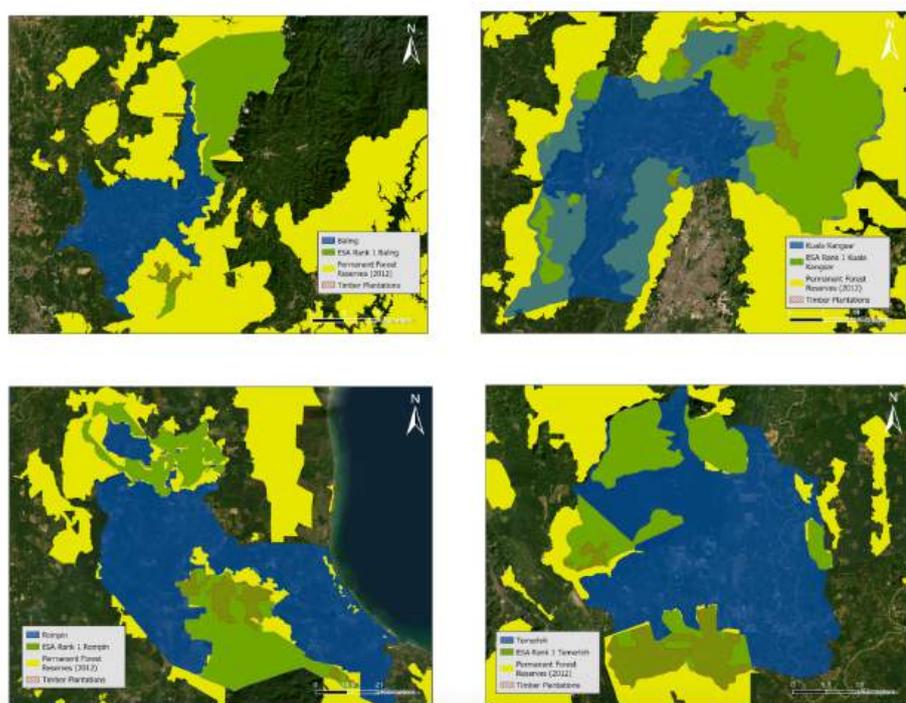
The Tasik Chini Special Area Plan identified three priority zones in the wider Chini area. These are the Biosphere Reserve Zone, the Biosphere Peripheral Zone (BPZ) 1 and Peripheral Zone (BPZ) 2. In November 2024, an EIA for “*logging and forest plantation development*” covering 1,446.36ha of Chini Forest Reserve was approved by the DOE. RimbaWatch sighted an executive summary of this EIA, which shows that at least 1,000ha of the development overlap with BPZ1 and more than 400ha with BPZ2, and there is little buffer between Block C of the development and the main Biosphere Reserve.

## Failing #11: Conversion Occurring in Environmentally Sensitive Areas

The MC&I (SFM) Standard Indicator 6.10 states that forest conversion must not occur on or negatively impact “environmentally sensitive areas identified by the relevant authorities”.

According to the Department of Environment, Environmental Sensitive Areas (ESA) are “areas that are of critical importance in terms of the goods, services and life-support systems they provide such as water purification, pest control and erosion regulation. In addition, they also refer to areas that harbor the wealth of the nation’s biodiversity.” (DOE, 2018). ESAs spatially define areas that are suitable or unsuitable for development according to three categories, Rank 1, 2 and 3 ESAs, with Rank 1 being the most sensitive. ESA spatial categorisations are published in the National Physical Plan, State Structure Plans and Local Area Plans.

To assess whether conversion is occurring in environmentally sensitive areas, RimbaWatch examined sample areas from four districts, Kuala Kangsar (Perak FMU), Baling (Kedah FMU) and Rompin and Temerloh (Pahang FMU). The spatial data and restrictions on environmentally sensitive areas were taken from the Draft Perak State Structure Plan 2040, Kedah State Structure Plan 2020 and the Pahang State Structure Plan 2050.



**Figure 8: Overview of zoning conflicts in Baling, Kuala Kangsar, Rompin and Temerloh districts.**

It is noteworthy that the Perak, Kedah and Pahang SSPs explicitly define Rank 1 areas with the following restrictions respectively:

*“pemajuan, pertanian atau pembalakan tidak dibenarkan kecuali ekopelancongan, penyelidikan dan pendidikan” [development, agriculture or logging is not allowed except for ecotourism, research and education]*

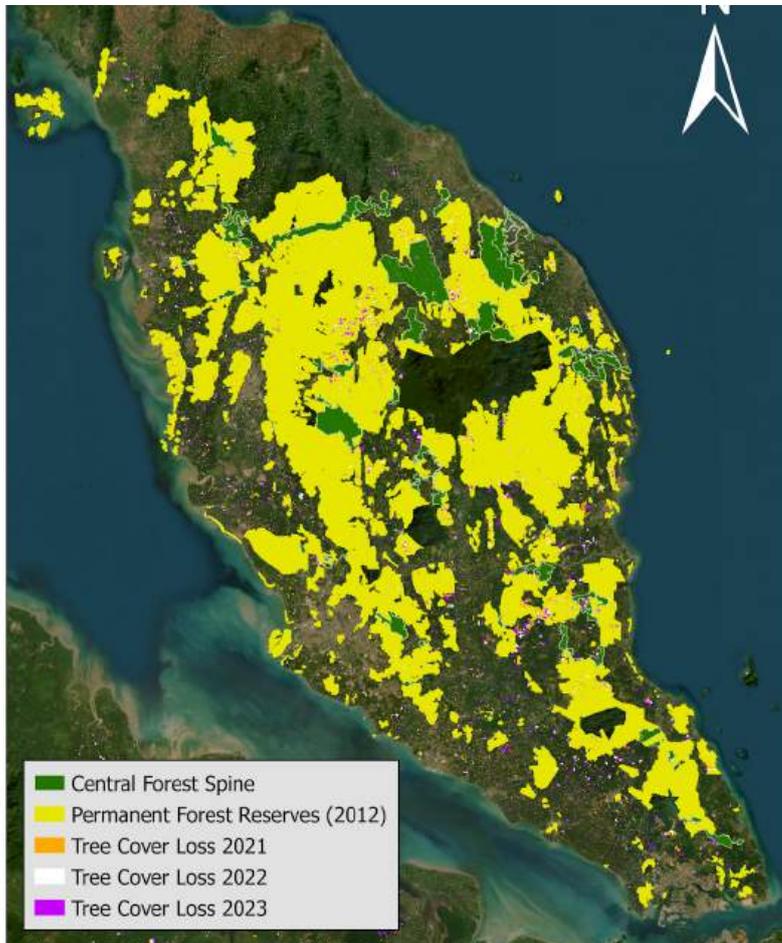
*“paling sensitif dan tidak dibenarkan untuk pembangunan” [most sensitive and not allowed for development]*

*“kawasan tidak boleh dibangunkan” [areas cannot be developed]*

These findings suggest that the conversion of natural forests in Environmentally Sensitive Rank 1 Areas, as identified by State Structure Plans (SSPs) is commonplace. This analysis finds that, for the following districts:

1. 2,352ha of ITP zones are located in ESA Rank 1 Areas in Baling
2. 8,884ha of ITP zones are located in ESA Rank 1 Areas in Kuala Kangsar
3. 20,839ha of ITP zones are located in ESA Rank 1 Areas in Rompin
4. 2,185ha of ITP zones are located in ESA Rank 1 Areas in Temerloh

## Failing #12: Logging Occurring in Central Forest Spine Areas

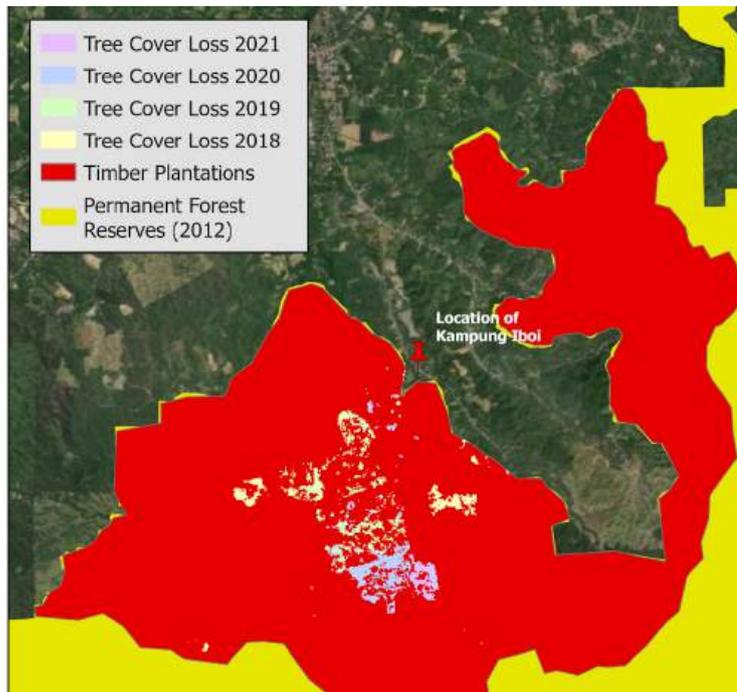


**Figure 9: Overview of Central Forest Spine connectors, Peninsular Malaysia**

The Central Forest Spine (CFS) is a strategic initiative by the Malaysian government aimed at re-establishing, maintaining, and enhancing connectivity between the major forest complexes in Peninsular Malaysia, across eight states—Pahang, Johor, Perak, Terengganu, Selangor, Kelantan, Kedah, and Negeri Sembilan. The Central Forest Spine Masterplan identifies the ecological linkages crucial for maintaining connectivity and biodiversity across the landscape, with focal species including the Malayan Tiger, Asian Elephant, Malayan Tapir, Sun Bear, Leopards and others. CFS Ecological linkages therefore qualify as locations with significant habitats of threatened and endangered species.

Our analysis finds that, between 2021 and 2023, 4,020ha of tree cover loss occurred within CFS Ecological Linkages in certified FMUs, with the majority occurring in Terengganu.

## Failing #13: Logging Occurred Near Site of Deadly Landslide



**Figure 10: Tree cover loss surrounding Kg. Iboi, 2018-2021**

In July 2022, Kampung Iboi in Kupang, Baling, Kedah, experienced a large debris flood and water surge phenomenon. On July 4, intense rainfall triggered landslides on the slopes of Gunung Inas, leading to a massive flow of debris and mud downstream into Sungai Kupang and subsequently into Kampung Iboi. This disaster resulted in the tragic loss of three lives, including a pregnant woman, and caused significant destruction to homes and infrastructure (MalaysiaKini, 2023). The floodwaters' force destroyed 17 houses and affected approximately 3,546 residents, with losses estimated at RM25.91 million (The Star, 2023).

Independent investigations into the Iboi floods attributed the event to a durian plantation established on the slopes of Gunung Inas within the Gunung Inas Forest Reserve, part of the Kedah FMU, whereby steep slopes with more than a 25 degree gradient had been deforested (MalaysiaKini, 2023).

Flooding near Kampung Iboi has remained recurring since July 2022, and within that year alone, at least 11 more floods occurred after the incident (NST, 2022). As of 2024, a relocation project was ongoing to move affected families to another area from Kampung Iboi (Bernama, 2024).

While the state Department of Environment had denied approving a durian plantation on those slopes, our analysis finds at least 400ha of tree cover loss between 2018 and 2021 upriver of Kampung Iboi inside an ITP Zone within the Gunung Inas Forest Reserve. No SIRIM audit report that was reviewed made any mention of conversion timber from the Gunung Inas Reserve being excluded from the scope of certification.

## Failing #14: Logging Disturbing Primary Water Catchment

The Muda reservoir, located in Kedah, supplies water to key agricultural land in Kedah and regulates water flows to the lower Muda river, where the Sungai Dua intake on a tributary of the Muda supplies up to 80% of Penang, a neighbouring state's, water supply. Disturbances to the water quality of the Muda reservoir caused by logging represent a significant risk to Penang. In 2018 it was reported that the Kedah government had cancelled all logging permits in the Ulu Muda Forest Reserve, part of the Kedah FMU, and which forms the water catchment of the Muda reservoir. The following year, the Kedah FMU lost its MTCS certification. In 2020, the Kedah government proposed to re-start logging in the catchment, against the advice of the Penang Water Supply Corporation, who cited risks to 4.2 million residents, manufacturing, tourism, retail and services and rice farming in the surrounding region, and in 2021 the FMU was recertified.

Satellite imagery shows that logging operations re-commenced in Ulu Muda beginning in 2021, with activities accelerating in 2022 and 2023. Satellite imagery clearly demonstrated the significant increase in river-borne sediment by early 2023. Satellite image of Tasik Muda in March 2023 shows a relatively undisturbed river and reservoir, but in October and December 2023 the river was visibly muddied, and was depositing this mud into the reservoir. This occurred downstream of logging activities, as demonstrated below.



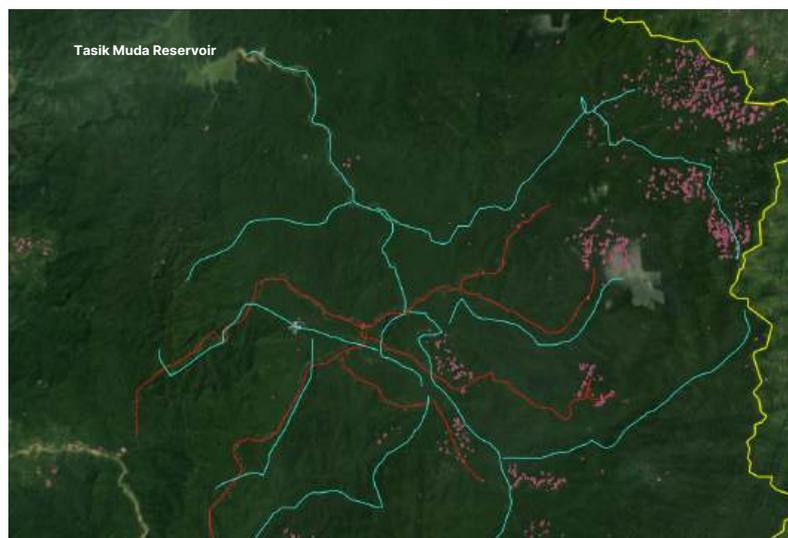
**Figure 11: Tasik Muda, March 2023**

(source: © 2025 Planet Labs PBC).



**Figure 12: Tasik Muda, October 2023**

(source: © 2025 Planet Labs PBC).



**Figure 13: Logging in Ulu Muda from 2023 (in pink), river systems in blue and logging roads in red, Malaysia-Thailand border in yellow.**

(source: RimbaWatch analysis on Google Earth/Global Forest Watch).

After the publication of these findings by RimbaWatch in January 2024, the Penang Chief Minister called on the Federal Government to establish an Ulu Muda Basin Authority to ensure an agency was in charge of controlling and managing the reservoir's water supply. However, the findings of this publication were subject to heavy politicisation, and the Chief Minister of Kedah, Muhammad Sanusi Md Nor, made numerous verbal attacks towards both RimbaWatch and the Penang Chief Minister. In particular, the Kedah Chief Minister responded to the publication by stating 'don't play narrow politics and expose your own stupidity', accused RimbaWatch of 'intervening in state affairs', and stated that the Ulu Muda Basin Authority would be established only "over my dead body" (Sinar Harian, 2024; FMT, 2024 and NST, 2024). Since this publication, neither SIRIM nor the MTCC has commented on these highly-publicised logging activities.

## Failing #15: Alterations in Kedah Forest Management Functions To Facilitate Logging in Water Catchment

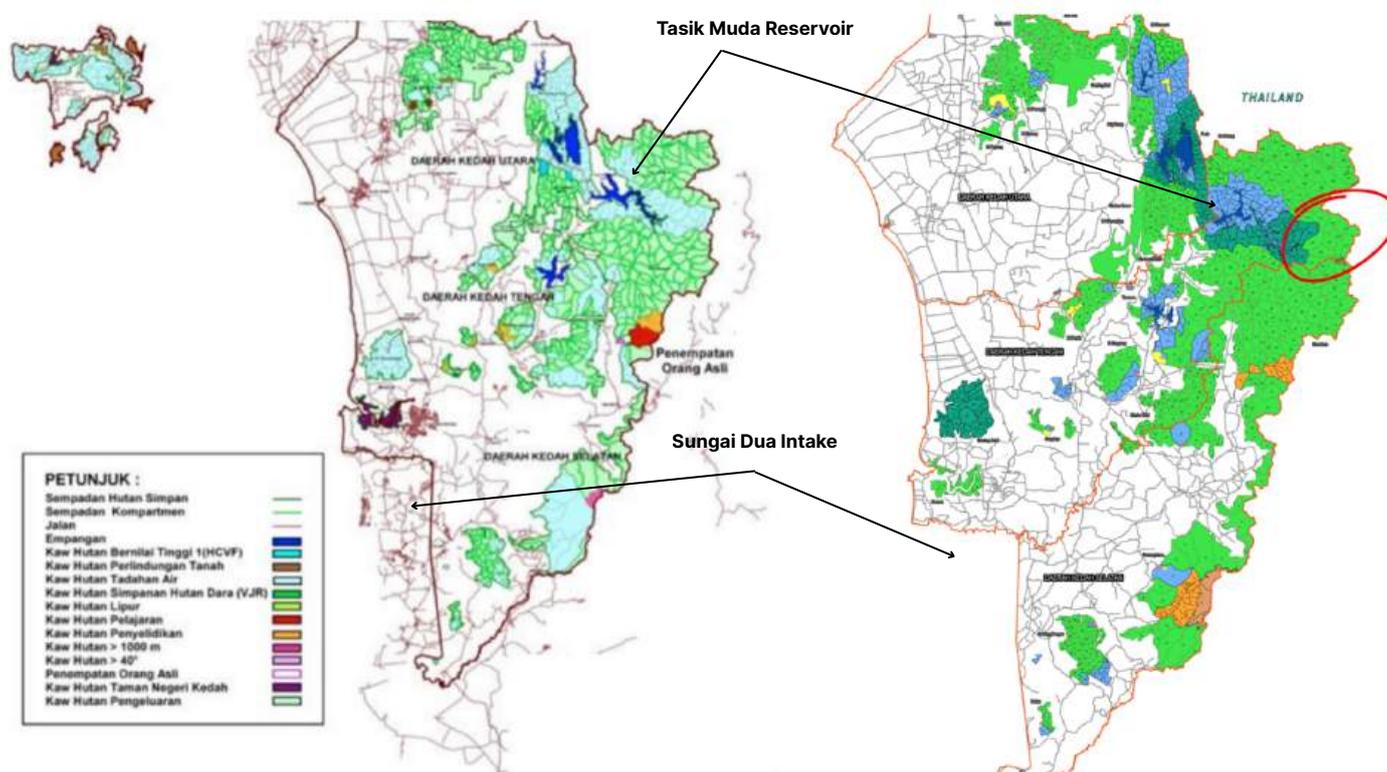


Figure 14: Kedah FMU, 2012

Figure 15: Kedah FMU, current website

FMUs in Peninsular Malaysia are allocated a number of forest management functions, such as production forests, educational forests, virgin jungle reserves, water catchments and others. Logging is not permitted in such areas outside of production forests. While the logging activities related to Failing #14 does not occur in an area currently recognised by the Kedah FMU as a water catchment forest, this was not always the case. A map of the FMU published in April 2012 (AidEnvironment, 2016) illustrates that the water catchment forest in the Ulu Muda Forest Reserve used to stretch to the Thai border, however a more recent map published at an unknown date that currently is displayed by the Kedah Forest Department ([https://forestry.kedah.gov.my/?page\\_id=1538](https://forestry.kedah.gov.my/?page_id=1538)) reduces the extent of the water catchment to roughly halfway between the reservoir and the border. This is illustrated in the map above, with the 2012 FMU map displayed on the left and the recent map on the right.

Between 2021 and 2024, we detected 96ha of forest loss within the exact section of the 2012 water catchment forest which subsequently lost its status; indicating that this change in status allowed a formerly protected water catchment to be logged. This change in water catchment designation is not mentioned in any recent SIRIM audit of the Kedah FMU.

# Findings

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## Other Findings

## Findings: Other Findings

### Failing #16: Lack of Transparency of Key Documents

While neither the MC&I SFM nor PEFC ST1003: 2018 Standards make overarching provisions for transparency of forestry documents, this opacity is nevertheless a concerning matter.

Under the provisions of Section 34A (2c) of the Environmental Quality Act 1974 and Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015, environmental impact assessments (EIAs) are required for logging activities spanning an area larger than 100ha, or the conversion of forests at 300m above sea level with an area larger than 20ha (DOE, 2021). Based on our assessment of SIRIM reports, in certain FMUs, EIAs for individual logging projects are not conducted, and instead there are “Macro Environmental Impact Assessment”, or MEIAs, covering activities for the entire FMU. While the SIRIM reports for Kedah, Terengganu, Negeri Sembilan and Pahang mention the existence of an MEIA, no component of these documents, including a public summary, are publicly available.

Further, while public summaries of Forest Management Plans (FMPs) for FMUs are available, these summaries are relatively short narrative documents, usually six to seven pages, outlining the size of the FMU, sizes of different forest types in the FMU, and general descriptions of key activities. These summaries have limited use in promoting public transparency of logging activities, as they do not include any maps showing the delineation of the FMU boundaries, HCVs and other zonations such as ITPs and Orang Asli Reserves. It is noted that Pahang is the only FMU that has published an FMP in full.

### Failing #17: Lack of Oversight and Accountability of Auditor

**The PEFC ST1003: 2018 Standard states that:**

*“The standard requires that appropriate mechanisms are in place for resolving complaints and disputes relating to forest management operations, land use rights and work conditions”*

Further, the Standard states that:

*“Complaints against certified entities are dealt with by the respective complaints and appeals procedures put in place by certification bodies. Issues that remain unresolved at this level should be raised with the respective complaints and appeals mechanisms of national accreditation bodies and thereafter - as a third level of appeal - with the IAF”*

However, the word “complaint” only shows up once in the MC&I (SFM) Standard, in a sentence stating:

*“MTCC welcomes feedback from readers and comments, complaints and requests for clarification and/or interpretation can be sent to us immediately by email at [info@mtcc.com.my](mailto:info@mtcc.com.my)”.*

In 2023, a Borneo Project report described the MTCS complaints system as “confusing and convoluted”. It is unclear if any changes had been made since that publication. At the time of writing, the only complaints mechanism available on the MTCC website is a webpage (<https://mtcc.com.my/complaint/>) describing the “institutional arrangement of the MTCS”, listing the different responsibilities of actors within that ecosystem. The webpage has links to the different enquiry procedures for each of these actors, and a number of these links no longer exist. Further, some of these links go to webpages with no relevance to a complaints mechanism, or provide no further information than an email or general contact form.

In their 2023 report, the Borneo Project and Bruno Manser Fonds state that:

*“SIRIM does not have a clear limit regarding what constitutes withdrawal or suspension of a certificate. In practice, this means that communities can file innumerable complaints about compliance and consent and the certificate could still be issued”*

This issue appears to be prevalent in Peninsular Malaysian FMUs. For example, in SIRIM’s Public Summary Surveillance Audit 3 (4th cycle) of the Perak FMU, three complaints by representatives of Indigenous communities on land rights issues were recorded. This includes a complaint from Jaringan Orang Asal SeMalaysia (JOAS), alleging noncompliance of logging activities in the Air Cepam Forest Reserve within the FMU with Criterion 3.4 of the MTCS MC&I (Natural Forest) Standard. Further, two complaints were made by representatives of two Indigenous communities, stating their objection to logging activities; one complaint specified explicitly that their Free, Prior, Informed Consent (FPIC) was not respected. In their response to all three complaints, SIRIM simply stated that:

*“Due to outbreak of Covid 19 and recommendation by JAKOA the site visit to the villages has been postponed”*

It is unclear what steps SIRIM took to verify these complaints, or if they made any attempt to contact these representatives. No further action was taken by SIRIM on these complaints in this Surveillance Audit.

In another case, in SIRIM’s Public Summary Recertification Audit (4th cycle) of the Perak FMU, SIRIM dismissed a RimbaWatch complaint regarding Indigenous land rights conflicts within the FMU (as described in Failing #1), during the scope of certification. In their dismissal, SIRIM did not raise any non-conformities in the FMU, claiming that:

*“there were no indigenous land rights conflicts because there is three (3) different set (legal requirements) which are used for Peninsular Malaysia, Sarawak, and Sabah.”*

Further, addressing the arrest of Indigenous land defenders during a logging blockade, SIRIM stated that:

*“the audit findings showed that the blockade was not in accordance with the legal requirements for Peninsular Malaysia.”*

In a complaint RimbaWatch made to the Department of Standards Malaysia (DOSM), a similar response was provided and no further action was taken by the Department on addressing Indigenous rights conflicts in the Perak FMU (see appendices). The DOSM further clarified that the decision to resolve the complaint was based on the decision of a “review panel which sat on 4th January 2024”.

As stated in the MTCC’s “institutional arrangement” webpage, the scope of the auditors is to audit and apply for certifications of FMUs, and the scope of the DOSM is to accredit and monitor the conduct of auditors. It is clear, therefore, that the only oversight of SIRIM’s audit findings is the Department of Standards Malaysia, and neither the MTCC or the PEFC conduct any further reviews into the accuracy or conduct of SIRIM’s audits. As revealed by the RimbaWatch complaint to the DOSM, therefore, the only oversight of SIRIM’s audits within the DOSM is an anonymous review panel, meaning that this review panel is the only oversight assessing the compliance of all Peninsular Malaysia’s FMUs with the MTCS and PEFC Standards.

It is unclear who the members of the panel are, the qualifications of this panel to assess technical forestry data, and whether the panel has established any technical or procedural processes or thresholds to assess complaints or raise issues with SIRIM’s certifications of FMUs. It is also noted that SIRIM Malaysia is wholly owned by the Ministry of Trade and Industry (MITI), and that the Department of Standards Malaysia is an agency established under the purview of MITI, which raises concerns over the capability of the existing auditing system to maintain independence and objectivity.

## Conclusions

**Through an analysis into the auditing practices related to the certification of FMUs, this review identified 16 commonly repeated areas of demonstrable and suspected non-compliance with the MTCS and PEFC requirements with audits of FMUs in Peninsular Malaysia:**

- Audits consistently ignored occurrences of Indigenous rights violations in certified FMUs
- Auditors only visited a few Indigenous communities, relied heavily on consultations with government agencies and did not attempt to consult with affected communities.
- Auditors limited recognition of Indigenous land claims to those which were legally gazetted, in conflict with PEFC requirements.
- Conversion areas are not consistently excluded from the scope of certification.
- It is unclear how auditors utilized satellite imagery
- At a minimum, conversion areas exceeded the 5% limit in two FMUs.
- Conversion is occurring in intact, not degraded, natural forests.
- Logging and conversion was occurring in a Class I Tiger Conservation Landscape.
- Logging occurred in a regionally significant large peat-swamp forest complex.
- Conversion in a certified FMU threatened the integrity of a UNESCO Reserve.
- Logging occurred near the site of a deadly landslide connected to deforestation.
- Logging occurred in Central Forest Spine habitat connectors.
- Logging disturbed a major water catchment.
- FMU managers altered forest management functions to facilitate logging in a water catchment.
- Key documents, including Environmental Impact Assessments and Forest Management Plans, are often not publicly available.
- There is no functioning complaint system and the only oversight of auditors is an anonymous panel within the Department of Standards Malaysia.

**Additionally, this review identifies 12 case studies of SIRIM audit reports making misleading statements in public summary reports:**

- In the 3rd Surveillance 4th Cycle audit report for Perak FMU, SIRIM claimed there were no disputes or complaints by Orang Asli on logging contractors and no forest management practices threatened Indigenous resource or tenure rights, when the same report documented three such complaints, as documented in the first case study.
- In the 3rd Surveillance 4th Cycle audit for the Perak FMU, SIRIM claimed that Perak recognized and supported the legal rights of the Orang Asli, however this followed a statement by the Chief Minister of Perak stating that there are no legal provisions for Orang Asli land in the state, as documented in the second case study.
- In the 4th Cycle Recertification Audit for Perak FMU, SIRIM claimed that there were no civil court cases on customary tenure or use rights against the Perak Forestry Department, when at least one such case was pending, as documented in the third case study.
- In the same report as (3), SIRIM claimed that RimbaWatch declined to have our identity revealed, but we were not approached for consent, as documented in the fourth case study.
- In the 3rd Surveillance 4th Cycle Audit for the Selangor FMU, SIRIM claimed that there were no Indigenous land claims within forest reserves in the FMU, when claims in at least two PRFs have been documented, as documented in the fifth case study.
- In the 4th Cycle Recertification Audit for the Negeri Sembilan FMU, SIRIM claimed that logging had not threatened the land use and forest resources of Orang Asli, when in that same year at least 50 villagers from three communities held a protest against logging in the Bukit Galla PRF, as documented in the sixth case study.

- In the 4th Surveillance 4th Cycle for the Pahang FMU, SIRIM claimed that the Orang Asli of Pahang did not utilise traditional forest-related knowledge, when there is no evidence to suggest this, as documented in the seventh case study.
- In the the 3rd Surveillance 4th Cycle and 4th Surveillance 4th Cycle audit reports for the Terengganu FMU, SIRIM claimed that there are no Indigenous land claims in the certified area, even though customary land use in the Hulu Terengganu/Tekam and Cherul PRFs are documented, as documented in the eighth case study.
- In the 4th Surveillance 4th Cycle audit report for the Terengganu FMU, the auditors state that logging did not directly or indirectly threaten Indigenous resource or tenure rights, but that same year a news report documented how a local Indigenous community was forced to move from their traditional food gathering areas due to logging, as documented in the ninth case study.
- In the 4th Cycle Recertification audit report for the Terengganu FMU, the auditors state that all Orang Asli reserves and areas of sociocultural significance were confirmed to be located outside the FMU, however this contradicts the evidence in tenth case study.
- In the 4th Cycle Surveillance Audit for the Perak FMU, the auditors state that no PRFs were converted to ITPs or other land use, however we detected at least 1,171ha of tree cover loss in ITP concessions during the intervening audit period, as documented in the eleventh case study.
- In various audit reports for the Terengganu FMU, the auditors state that no PRFs were converted to ITPs or other land use, however we detected at least 652ha of tree cover loss in ITP concessions during the intervening audit period, as documented in the twelfth case study.

**Further, this review identifies a key gap in the MC&I (SFM) Standard:**

- The UN Declaration on the Rights of Indigenous Peoples (UNDRIP) and PEFC Standards require recognition of Indigenous territories beyond legal frameworks, however the MC&I Standard constricts recognition of Indigenous claims to those which are legally gazetted.

These findings indicate that poor auditing practices severely undermine the credibility of MTCS accreditation in Peninsular Malaysia, and because of this timber under these certificates are at risk of association with human rights violations, large-scale natural forest conversion and harm to EIFAs. Further, this report finds that components of the MTCS standard, and their interpretation by auditors, are non-compliant with PEFC benchmarks.

## Recommendations

### Given these findings, we make the following recommendations to the Government of Malaysia:

- The Department of Standards Malaysia must temporarily suspend SIRIM QAS INTERNATIONAL as a notified Certification Body (CB) for the MTCS/PEFC.
- All State Forestry Departments to adopt an immediate moratorium on all forestry activities in ITP concessions across Malaysia.
- The Department of Environment to halt approvals of environmental impact assessments (EIAs) for ITPs in line with the above point.
- In both policy documents and upcoming environmental legislation (i.e the Climate Change Act), Malaysia must legislate the target to maintain natural forest cover above a certain minimum percentage of land cover, which should be set at Malaysia's current extant natural forest cover. Further, this adjustment should align the definition of forest with the definition of 'Naturally Regenerating Forest' from the Food and Agriculture Organisation.
- The relevant agencies should spearhead constitutional amendments to reflect the right of Malaysians to a clean environment, and of its Indigenous communities to legal ownership of their Traditional Territories.

### The MTCC should ensure that MC&I SFM Standard:

- Explicitly recognises the customary rights of Indigenous peoples to their Traditional Territories beyond legal requirements, and require that forest managers are responsible for 1) Documenting the extent of Traditional Territories through participatory mapping with Indigenous communities, 2) Excluding such Territories from the FMU and 3) Ensuring that Free, Prior, Informed Consent (FPIC) is implemented for ALL forest management (and conversion) operations.
- Adopt 1st July 2012 as a final cut off date for certification of **ALL** conversion areas within the FMU whereby
  - ITPs established after that year are explicitly excluded from certification,
  - A verification system is developed to ensure that logs sourced from conversion areas are excluded from certification and;
  - A methodology is developed to calculate and enforce the 5% conversion rule, in reference to this cut off-date.
- Adopt rigorous limitations to logging and conversion in nationally-important EIFAs. This should include an explicit requirement to exclude such EIFAs, including but not limited to, Environmentally Sensitive Rank 1 and 2 Areas, Tiger Habitats, Central Forest Spine connectors and nationally and regionally-important large landscapes, from the certification scope.
- Adopt rigorous criteria to restrict forest managers from reducing the scope of protected forest management functions in the FMU to facilitate logging of previously-protected areas.
- Explicitly require forest managers to make documentation related to the FMU transparent, including forest management plans, forest management functions, environmental impact assessments, concession maps and others.
- Clearly outline strict criteria for a suspension, including what activities count as major and minor non-conformities, and how many non-conformities lead to a suspension, including provisions to suspend certification if non-conformities are not resolved by the next audit; coupled with rigorous monitoring protocols.
- For all above recommendations to be taken into account in the on-going revision of the MTCS ST 1002:2021 and MTCS ST 1003:2021 standard by the Standard Review Committee.

**Further, we recommend that the PEFC:**

- Temporarily suspend endorsement of the MTCS pending a review of the MC&I (SFM) Standard and current auditing practice, which would ensure that the MTCS Standard's requirements on Indigenous rights, conversion and ecologically important forest areas (EIFAs) are aligned, on paper and in practice, with the PEFC ST1003: 2018 and relevant Indigenous rights covenants, such as the United Nations Declaration on the Rights of Indigenous Peoples.
- Establish an independent, national-level auditing oversight panel outside of existing government bodies which periodically monitors audit reports for factual accuracy, impartiality and effectiveness of methods, and which handles public complaints as in the below point.
- Establish a transparent and effective complaints system for FMUs, including:
  - Establishing a mechanism for stakeholders to submit complaints to the forest manager, auditors and oversight panel as in the above point.
  - Establishing a mechanism whereby complaints from certain key stakeholders, or the frequency of complaints, automatically triggers a suspension and review into the FMU
  - For the panel in the above point to proactively engage with Indigenous communities and CSOs in managing complaints.
  - For the mechanism to include anti-SLAPP protections, and remove clause that pauses complaints processes if legal cases are ongoing

**Together, we recommend that both the PEFC and MTCC:**

- Establish strict requirements for auditors, including requiring auditors to:
  - Be fully independent of Forest Managers, State and Federal governments, timber companies and associated lobbying organisations, such as by instating a payment system where auditors are paid by standard bodies, not by their clients.
  - Require auditors to arrange their audits independently of the companies they assess, using separate logistics, and conduct audits without prior announcement.
  - Be demonstrably trained in enforcing the requirements in the above point.
  - Be trained and qualified in assessing Free, Prior, Informed Consent (FPIC) processes and Indigenous rights.
  - Be demonstrably trained and qualified in utilizing satellite imagery and other forms of spatial data to monitor logging operations.
  - Be demonstrably trained and qualified in independently assessing FMUs without relying on engagements with and data provided by state authorities.
  - In cases where there are discrepancies in guidance from standards, be demonstrably trained to audit in favour of compliance with the most demanding applicable standard, and in separating MTCS and PEFC Standards from State Legislation.
  - Be legally responsible for the factual integrity of audit reports.

**Finally, we recommend that purchasers of Malaysian timber:**

- Temporarily suspend any endorsement or acceptance of both MTCS and PEFC standards for sustainable timber procurement pending the above recommended reviews into forest management practices.

# Appendices

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## Appendix I: The Forestry Industry in Peninsular Malaysia

Peninsular Malaysia, also known as West Malaysia, is located in Southeast Asia and occupies the southern part of the Malay Peninsula. It shares a northern border with Thailand, while its southernmost point is connected to Singapore via the Johor–Singapore Causeway. To the west, it is bordered by the Strait of Malacca, and to the east, by the South China Sea. The Peninsular constitutes the larger part of Malaysia in terms of population and economic activity, with major cities such as Kuala Lumpur, Johor Bahru, and Penang.

Peninsular Malaysia consists of 11 out of Malaysia's 13 states and two of the three federal territories. The states are Perlis, Kedah, Penang, Perak, Selangor, Negeri Sembilan, Melaka, Johor, Pahang, Terengganu, and Kelantan. The federal territories include Kuala Lumpur and Putrajaya. Nine of these states: Perlis, Kedah, Kelantan, Terengganu, Pahang, Johor, Negeri Sembilan, Selangor, and Perak, are monarchies ruled by sultans, while Penang and Melaka are governed by appointed governors. Malaysia follows a constitutional monarchy system, where the Yang di-Pertuan Agong (King) is elected every five years from among the nine ruling sultans. The region's administrative system blends federal and state powers, with local governance, including matters on forestry, handled by state governments under the federal framework.

Geographically, Peninsular Malaysia features a mix of coastal lowlands, rolling hills, and mountain ranges, with more than half of its land mass over 150 metres above sea level (CBD, 1998). Biodiversity in Peninsular Malaysia is of global significance due to its vast tropical rainforests, which are home to an array of flora and fauna, including endangered megafauna such as the Malayan tiger and Asian Elephant. Malaysia is, in fact, listed among the top 12 biodiversity rich countries in terms of species richness and endemism (NRECC, 2022). These ecosystems provide essential services such as carbon sequestration, climate regulation and water purification. Peninsular Malaysia is primarily covered by tropical rainforests, including lowland dipterocarp forests, hill dipterocarp forests, montane forests, and peat swamp forests. Mangrove forests are also found along the coastal regions.

The timber industry is a source of revenue to certain states in Peninsular Malaysia. State governments often cite economic development and job creation to justify the timber industry. The states that generate significant forestry revenue include Kelantan, Pahang, Perak, Selangor, Terengganu, Johor and Kedah. According to the Forestry Statistics Peninsular Malaysia 2019, these states received between RM20-150 million in forestry revenue. These charges are made up of royalties and taxes (from the volume of harvested timber), as well as a premium (charged on the area of forest used). However, it is of note that state forestry revenue is usually much lower than the timber value, which is retained by logging operators (Macaranga, 2020).

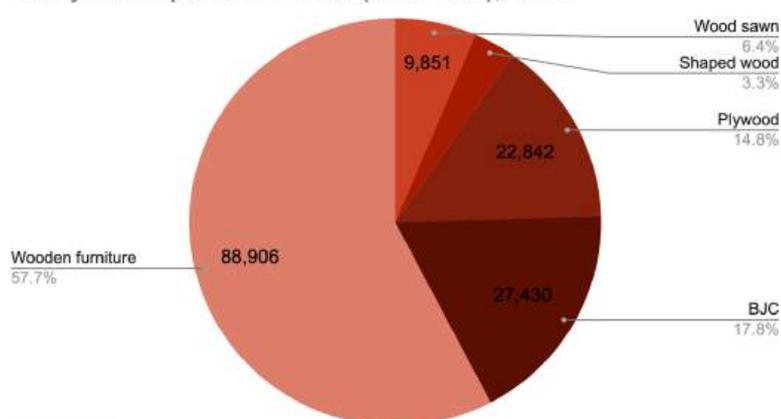
Over the past few decades, there has been increasing global demand for low-cost timber products. Trade flows of forest products, including sawn timber, plywood and pulpwood, to developed economies such as the US, EU and countries in East Asia have increased to meet demands in housing, construction and energy. In 2023, Malaysia exported timber valued at RM21.84 billion (USD 5.1 billion), with wooden furniture comprising almost 42% of this amount, followed by plywood (11.4%), sawn timber (10.5%), builders' joinery and carpentry (BJC) (7%) and fireboard (3.8%) (MTCC, 2023). Almost half of wooden furniture exports were destined for the US, while plywood, sawn timber and fireboard were mostly exported to Asian countries. Exports of BJC were largely going to the US, Australia, the UK, Singapore and the EU. Sources have indicated that East Malaysian timber is largely purchased by East Asian suppliers, while the UK and Europe source timber from exporters in Peninsular Malaysia. According to the Malaysian Timber Council's 2023 Annual Report, 3.4% of total Malaysian exports went to the UK, valued at RM739.86 million (USD 174.9 million).

Top export destinations	Market share (%)	Export value (RM/USD)
United States	26.1	RM5.70 billion/USD1.3 billion
China	13	RM2.83 billion/USD668.7 million
Japan	12.9	RM2.82 billion/USD666.4 million
Singapore	6.9	RM1.51 billion/USD356.8 million
Australia	4.7	RM1.02 billion/USD241.0 million
India	4	RM883.77 million/USD208.8 million
United Kingdom	3.4	RM739.86 million/USD174.9 million
Netherlands	2.7	RM587.00 million/USD138.7 million
Philippines	2.3	RM505.56 million/USD119.5 million
United Arab Emirates	2.2	480.09 million/USD113.4 million

Source: Compiled by RimbaWatch, 2025; Data: MTCC Annual Report 2023

Focusing on the UK, RimbaWatch’s analysis of trade data using specific Harmonised System (HS) codes reveals that in 2023, the UK imported nearly USD 89 million (GBP 65.9 million) worth of wooden furniture from Malaysia - including office, kitchen, bedroom, and other categories - with bedroom furniture accounting for approximately 70% of this total. Additional imports included builders' joinery and carpentry (BJC) valued at USD 27.4 million (GBP 20.3 million), plywood at approximately USD 23 million (GBP 17.0 million), sawn timber at around USD 9.9 million (GBP 7.3 million), and shaped wood at USD 5.1 million (GBP 3.7 million).

Malaysian exports to the UK (USD '000), 2023



Collectively, these five categories made up nearly 95% of Malaysian timber and wood product exports to the UK. Notably, the UK accounted for a significant share of Malaysia's global exports in specific categories - representing 9.7% of BJC and 9.2% of wooden bedroom furniture exports. The UK also contributed 4% each to Malaysia's global exports of plywood and other types of bedroom furniture. As for UK imports of these five product categories, Malaysia supplied almost 4% of the total value.

***Note: For the analysis above, export values for BJC were unavailable on the MTCC report, and the figure of 7% was an estimated calculation by RimbaWatch utilising data obtained from the ITC Trade Map.***

Despite the Malaysian government's pledge to maintain 50% of its land cover as forest, a commitment enshrined in national policies, deforestation continues to impact performance on this pledge. Global Forest Watch (2024) reported that between 2002-2023, Malaysia lost 2.93 million hectares of humid primary forest. In RimbaWatch's State of the Malaysian Rainforest 2024 report, it was predicted, based on three separate baseline forest cover datasets, that enough concessions for conversion had been granted for forest cover to drop below 50%, (RimbaWatch, 2024). In fact, one dataset estimated that forest cover has already fallen below 50%, and stands at about 47% as of 2022. It was highlighted that between 2.1 million to 3.2 million hectares of natural forest were under threat from conversion (RimbaWatch, 2024); of which industrial timber plantations represented an estimated 76% of this figure.

In Peninsular Malaysia, the majority of timber plantations are located in Kelantan and Pahang. These ITPs are referred to by state authorities as "forest plantations", and in Peninsular Malaysia are part of the Forest Plantation Development Program, which aims to replenish timber stocks in depleted natural forests with industrial monoculture plantations of rubberwood, acacia and other fast-growing species. It must be noted that this Program applies primarily to land in Permanent Reserved Forests (PRFs), and despite its stated focus on depleted forests, more than 1.5 million hectares of timber plantation concessions across Malaysia are located in intact forests which are not degraded.

## Appendix II: Forestry Laws in Peninsular Malaysia

According to Article 74 of the Federal Constitution (Ninth Schedule, List II - State List), matters related to land and forests are under the jurisdiction of the state governments (except for the Federal Territories of Kuala Lumpur, Labuan and Putrajaya), limiting the federal government's role in decision-making pertaining to land and forests. As such, the state's jurisdiction covers the official declaration and legal publication of an area of land under reserved status, namely the gazetting of forest reserves, issuance of logging permits, collection of timber royalties and the issuance of monoculture plantation leases on forested land (FOE Malaysia, 2020).

Prior to 1984, Penang, Selangor and Melaka, which were part of the colonial Straits Settlements, enforced the Forest Ordinance 1908, while the other states in the Peninsular enforced the Forest Enactment 1934. These laws introduced the idea of Reserved Forests for the purposes of protection, timber provision and other uses. In 1977, the National Forestry Policy was introduced, and later in 1984 the National Forestry Act (NFA) was established. While the NFA was a Federal law, as land and forests are state matters, to come into force in a particular state the NFA needed first to be adopted as a state law in state legislature, and therefore the NFA was adopted at different years as states made their individual enactments.

The NFA established the proprietary rights of resources within Permanent Reserved Forests (PRFs) to the state and provided for the powers to gazette and de-gazette PRFs to issue or revoke licenses and use-permits and to permit entry to such reserves. Under the NFA, there are different classifications of PRFs, including "Timber Production Forest under Sustained Yield", which allows for logging under licence, different types of protection forests including Water Catchment Forests and Virgin Jungle Reserves, Amenity Forests for public recreation and research and educational forests.

There are a number of authorities at different levels relevant to the functions of the Forestry Sector. At a Federal level, the National Land Council (NLC), established in 1958 and consisting of a minister as Chairman, representatives of the Federal Government elected by the Cabinet amounting to no more than 10 members and one representative from each State Government elected by the Sultan or the Governor, has the stated aim to "coordinate the management practices and the use of forest resources in a planned, rational and effective manner". The NLC sets an Annual Allowable Cut (AAC) at a five-year basis, defining how many hectares of PRFs are allowed to be logged on an annual basis.

The Forestry Department Peninsular (FDPM) and the State Forestry Departments under the authority of the National Forestry Act 1984, issue harvesting permits, licenses and log transport documents. Meanwhile, the authority issuing export and import licenses for timber products, as enforced by Schedule 2 of the Customs (Prohibition of Export) Order 2012 and (Prohibition of Import) Order 2012, is the Malaysian Timber Industry Board (MTIB). Meanwhile, under the Department of Environment's (DOE) Environmental Impact Assessment (EIA) Guidelines, which are empowered under the Environmental Quality Act (EQA) 1974, an EIA is required for logging activities with a size above 100 hectares, and for ITP projects larger than 100 hectares. Depending on the size, approval of projects is conducted by either the State or Federal DOEs.

## Appendix III: The Timber Certification Ecosystem

In Peninsular Malaysia, there are two main options for certification of forest management units (FMUs). These are the Forest Stewardship Council (FSC) and the Malaysian Timber Certification Scheme (MTCS). While the FSC has certified a number of FMUs in the Peninsular, the MTCS remains the primary certification scheme in the region.

The Malaysian Timber Certification Council (MTCC) was established in 1998 as an independent organisation to develop and operate the Malaysian Timber Certification Scheme (MTCS). Under the MTCS, the standard currently used for forest management certification of natural forest is the Malaysian Criteria and Indicators for Sustainable Forest Management (MC&I SFM), which came into force in January 2021 replacing the MC&I (Natural Forest) and MC&I Forest Plantation.v2 standards.

According to the MTCC, the MTCS provides forest managers with confirmation that:

*“forest management practices at their Forest Management Unit (FMU) or Forest Plantation Management Unit (FPMU) meet the requirements of the best practices in sustainable forest management”*

In 2009, the MTCS was endorsed by the Programme for the Endorsement of Forest Certification (PEFC), a status which is currently upheld (MTCC, n.d). The PEFC, founded in 1999, is an umbrella organization which endorses national forest certification systems. The PEFC ST 1003 standard defines the benchmark for requirements on sustainable forest management, and national forest management standards must address these requirements to achieve PEFC endorsement. The PEFC is the world’s largest forest certification system, and they estimate that 71% of all forests certified globally are done so under the PEFC (n.d). The PEFC is further endorsed by a number of public procurement policies, such as the UK Government Timber Procurement Policy which assessed that the PEFC fully adhered to legality criteria,

Unlike in Sabah and Sarawak, in Peninsular Malaysia, FMU certification is conducted at the level of the state, and not at an entity-level. Therefore, FMUs are defined as the entirety of the state’s PRFs, other than PRF areas that are defined as excluded from the certification scope. As of 2024, 4,055,130ha of PRFs in Peninsular Malaysia are certified under the MTCS under seven FMUs, namely Johor, Negeri Sembilan, Pahang, Perak, Selangor, Terengganu and Kedah (MTCC, 2024).

In order to achieve MTCS certification, FMUs need to comply with the MC&I SFM standard. In Malaysia, there are two PEFC-accredited Certification Bodies (CBs) for Forest Management Certifications, which are the entities that evaluate and certify FMUs. These are SIRIM QAS International (SIRIM) and Control Union.

SIRIM is wholly owned by the Ministry of Trade and Industry (MITI), and is responsible for promoting, maintaining and inspecting standards in various industries. SIRIM is accredited by the Department of Standards Malaysia (DSM). Control Union is an international certification and inspection organization which provides assessment and certifications for a range of different sectors. Currently, SIRIM is the sole CB of FMUs in Peninsular Malaysia.

CBs carry out three types of audits for MTCS certification of FMUs, namely Stage 1, Stage 2, and surveillance audits. The first stage, or pre-assessment, reviews the FMU's forest management system and highlights any significant gaps or "nonconformities" with the standards. The second stage, known as the main assessment, includes thorough on-site inspections and evaluations to determine the FMU's adherence to sustainability requirements covering environmental, social, and economic aspects. Following initial certification, regular surveillance audits are performed to ensure continued compliance. Before the certificate expires, a re-certification audit is also conducted (Borneo Project and Bruno Manser Fonds, 2023).

It must be noted that there are two levels of certification under the MTCS; Forest Management Certification, which certifies FMUs, and Chain of Custody (CoC) certification, which certifies entities along the timber supply chain, from sawmills and manufacturers to traders and exporters, to ensure that products come from certified FMUs. This report focuses on Forest Management Certification.

## Appendix IV: Indigenous Rights and Governance Frameworks

The Indigenous peoples of Peninsular Malaysia are referred to as the Orang Asli. The Orang Asli face systemic marginalization under paternalistic laws, and lack land rights, autonomy, and protection despite the existence of laws intended to do so.

They are Indigenous peoples as defined and protected under international law. One of the key criteria is self-identification and, as stated by Yogeswaran and Nicholas (2018), the Orang Asli “have self-identified as Indigenous peoples at international human rights fora and domestically”. Importantly, Orang Asli communities have occupied their Indigenous Traditional Territories, which are locally referred to as tanah adat, and practiced their established land tenure systems, since before the time of colonisation and the imposition of the foreign *Torrens* land titling format. Their traditional lifestyles are intimately connected to these ancestral lands.

The Orang Asli are not a homogenous group. There is significant diversity among Orang Asli communities; there are 18 ethnic subgroups historically classified across the 3 main ethnic groups of Negrito, Senoi and Proto-Malay. Orang Asli communities live across the whole of Peninsular Malaysia and as at 2021, the population of Orang Asli stood at 210,611 representing 0.6% of the national population (Nicholas, 2021). As at 2021, the government disclosed that 89.8% of Orang Asli were living below the poverty line (COAC and RimbaWatch, 2023).

The key law relevant to the Orang Asli’s land rights is the Aboriginal Peoples Act 1954 (1954 Act). The 1954 Act is the only legislation enacted specifically for the Orang Asli. Its purpose is clearly stated in the Act’s preamble, “to provide for the protection, well-being and advancement of the aboriginal peoples of Peninsular Malaysia”. Although the 1954 Act purports to provide for the advancement of the Orang Asli, it takes a largely paternalistic approach in doing so. A key aspect of the 1954 Act is that it provides for the establishment of ‘Aboriginal areas’ and ‘Aboriginal reserves’, in short specific areas of land gazetted for an Orang Asli community. However, this is phrased exclusively as a discretionary power of the relevant State authority, i.e. “The State Authority may, by notification in the Gazette, declare any area exclusively inhabited by aborigines to be an aboriginal reserve” (Section 7, 1954 Act). It is not framed as a collective right of Orang Asli communities with specific substantive and procedural safeguards. It is instead framed solely as the goodwill of the State. As such, provisions of the 1954 Act have been perceived by government authorities as only granting Orang Asli communities status as ‘tenants-at will’ and, accordingly, the State authority may revoke the status of the Orang Asli area or reserve as and when it wishes.

This perspective is prevalent and present in other parts of the 1954 Act, including the provision that the appointment of the headman of an Orang Asli community is “subject in each case to confirmation by the Minister” and that “the Minister may remove any headman from his office” (Section 16, 1954 Act). The Orang Asli community’s right and autonomy to appoint their headman is not safeguarded.

Rather than empowering the Orang Asli and ensuring their autonomy, the 1954 Act further cements the Orang Asli’s dependence on the government’s goodwill and consent. It does not provide for the Orang Asli to be in control of their own self-determination.

In line with the 1954 Act's approach, the Department of Orang Asli Advancement (JAKOA) can be seen as further subverting the Orang Asli's expectation to have agency over their own lives. As recounted by Nicholas (2010), there is a prevailing assumption that any engagement or dealings with the Orang Asli must be done via JAKOA. This further strengthens the perception of JAKOA as the 'legal guardian' and sole representative of the Orang Asli. There have also been occasions that put into question whether JAKOA have always been aligned with an Orang Asli community's interests, as seen in various land disputes involving the Orang Asli and the government where "JAKOA has invariably concurred with the government position". Further, "JAKOA has also been accused of misrepresenting the Orang Asli in decision-making processes that affect Orang Asli lives and lands"; a recent example being an allegation that consent letters to a proposed palm oil development project were signed by the Temoq Orang Asli of Kampung Berengoi Mesau in the presence of JAKOA officers, yet these very officers had allegedly failed to explain the contents of the letters to the Temoq. It must further be noted that JAKOA remains primarily staffed by non-Orang Asli (Nicholas, 2021).

This framework provides some context to the fact that, as of today, there are very few areas gazetted as an Orang Asli reserve or Orang Asli area. As of 2017, only 32,700ha of land was gazetted with this status (Malay Mail, 2017). This represents just 20% of the 151,143ha of lands identified by the Department of Orang Asli Advancement (JAKOA) as inhabited by the Orang Asli, which in itself is a subset of the total traditional territories claimed by them (Taman and Kasim, 2021). Therefore, the overwhelming majority of Orang Asli territories in Malaysia do not have any form of legal protection.

Further, even where an area has been officially gazetted, this does not mean the land is safely secured as Orang Asli land. The Sagong Tasi court case demonstrates the fragility of gazetted reserves, whereby in 1995 a Temuan community was evicted from their reserve under the Selangor state government's assertion that "[a]ll that the plaintiffs had at best was a right to occupation in the nature of a tenancy at will" (Selangor State Government & Ors v Sagong Bin Tasi & Ors [2005] 6 MLJ 289 (CA) (Sagong Tasi CA), at 301), and they were not entitled to compensation. This action was overturned ten years later in a Court of Appeal decision.

Although common law has made strides in advancing the Orang Asli's land rights, there are limitations. Court decisions have often been restricted to the settled areas of an Orang Asli community's 'tanah adat' or customary land. Judicial recognition of customary community land rights has been confined to settled areas while not including wider customary lands, such as their 'kawasan rayau' (foraging areas), ancestral and spiritual sites, protection forests, water catchments and others; which represents the largest areas of claimed territories. This approach was confirmed by a recent Taiping High Court decision which found in favour of the Temiar Orang Asli community in Kampung Tasik Asal Cunex, and the court's recognition of customary community rights to the Temiar's settled land areas.

## Appendix V: Methodology for Automated Analysis

The automated analyses conducted for this report are based on the following assumptions and definitions:

1. Concessions are defined as any areas relevant to this report which have been earmarked for non-natural forest or forest preservation uses, as demonstrated by spatially defined plans as published in state Forest Management plans, zoning plans, approved Environmental Impact Assessments, and others.
2. For analyses related to conversion, all areas within conversion concession boundaries which meet the forest criteria under the Vancutsem et al 2021 forest cover spatial dataset is assumed to be under threat from conversion. Data on areas set aside for conservation, and other non-conversion uses, at a concession-level are not known and therefore unaccounted for in this analysis.
3. For analyses related to tree cover loss, data from Hansen et al 2020-2024 is adopted.
4. It must be noted that due to continued limitations in data availability, the findings of this report must be taken as estimates produced within the confines of the methodology adopted. For example, data for certain activities are likely to be significantly underestimated as only limited concession data is available.

The calculations for this report were conducted on ArcGIS Pro 2.9, installed with a patch to fix existing bugs in the software. This methodology may be applicable with other Geographic Information Systems (GIS) such as QGIS, however the details below are based solely on calculations performed with ArcGIS Pro.

Upon downloading the relevant data, the "Extract by Mask" raster tool and "Mosaic to New Raster" tool were applied to isolate and merge the data within Malaysia's administrative boundaries. This process generated a comprehensive layer representing the state of forests within Malaysian territory, categorized as [Undisturbed, Degraded, and Other] (UDTMF JRC-TMF, 2024). To integrate the concession boundaries data obtained from RimbaWatch into the analysis, the Keyhole Markup Language (KML) format of the concession boundaries was converted into a layer file using the tool available in ArcGIS Pro. Further, classification of the polygons and lines in the concession dataset was conducted based on their respective attributes, such as timber plantations, palm oil areas, and settlements, utilizing the reclassify tool. This step enabled the differentiation of different types of concessions within the dataset. Subsequently, the forest classification layer was overlaid onto the RimbaWatch dataset using the "Extract by Mask" tool. In this operation, the forest classification data served as the input data, and the RimbaWatch dataset functioned as the boundary, yielding forest classification information within the defined concession boundaries. The attribute tables from the new layers provide data for the number of cells for each type of forest cover.

The layer properties of the raster data, available for each layer, provide the necessary information for this calculation. Specifically, the Raster Spatial Reference and Extent provided the necessary values for cell length (x) and cell width, which were instrumental in calculating the size of each cell. The cell length was squared to determine the cell size in square meters (m<sup>2</sup>), and this value was then converted to hectares (ha) by dividing it by 10,000. The formula for calculating the cell size (ha) is as follows:

$$\text{Cell size (ha)} = \frac{x^2}{10000}$$

After obtaining the cell size, the attribute table of each layer was processed to extract pertinent information related to relevant values and the corresponding number of pixels for each row. The total area for each row in the attribute table was then determined by multiplying the number of cells by the previously calculated hectare value.

Total area (ha) = Number of cells Cell size (ha)

Finally, the total value in a given area is determined by multiplying the total area (ha) by the corresponding value specific to that region.

# Bibliography

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Aboriginal Peoples Act 1954 (Act 134)

AidEnvironment. (2016). Did Malaysia Comply with the Terms of the Netherlands – Malaysia Agreement for Temporary Acceptance of the MTCS-Certificate? Jakarta: AidEnvironment.

Amnesty International (2018). “The Forest is our Heartbeat” – The Struggle to Defend Indigenous Land in Malaysia’. Amnesty International: Kuala Lumpur.

Audit Department of Malaysia. (2022). Laporan Audit. [online] Available at: <https://lkan.audit.gov.my/laporan/manage/2058> [Accessed 15 Apr. 2025].

Bernama. (2024). Police take statements from Orang Asli blocking logging activities. [online] Available at: <https://www.bernama.com/en/news.php?id=2347000> [Accessed 15 Apr. 2025].

BMF. (2023). Lost in Certification. [pdf] Bruno Manser Fonds. Available at: [https://bmf.ch/upload/News/2023/Lost\\_in\\_Certification\\_202311.pdf](https://bmf.ch/upload/News/2023/Lost_in_Certification_202311.pdf) [Accessed 15 Apr. 2025].

CBD. (1998). Malaysia: First National Report to the CBD. [pdf] Convention on Biological Diversity. Available at: <https://www.cbd.int/doc/world/my/my-nr-01-en.pdf> [Accessed 15 Apr. 2025].

Center for Orang Asli Concerns and RimbaWatch. (2023) [pdf]. HUMAN RIGHTS ISSUES FACING THE INDIGENOUS ORANG ASLI IN PENINSULAR MALAYSIA. Available at: <https://uprdoc.ohchr.org/uprweb/downloadfile.aspx?filename=12493&file=EnglishTranslation> [Accessed 15 Apr. 2025].

Channel News Asia (2024). ‘On a prime slice of Malaysia's Selangor coast, an Orang Asli tribe fights to hold onto its ancestral land’. Available at: <https://www.channelnewsasia.com/asia/malaysia-orang-asli-indigenous-land-rights-selangor-perak-4359806> [Accessed 15 Apr. 2025].

Department of Environment Malaysia. (2018). Appendix A R4. Available at: [https://enviro2.doe.gov.my/ekmc/wp-content/uploads/2018/07/Appendix-A\\_R4.pdf](https://enviro2.doe.gov.my/ekmc/wp-content/uploads/2018/07/Appendix-A_R4.pdf) [Accessed 28 Oct. 2024].

Department of Wildlife and National Parks Peninsular Malaysia. (n.d.). National Tiger Conservation Action Plan for Malaysia (NTCAP). [pdf] Available at: <https://www.wildlife.gov.my/images/stories/penerbitan/pelan/NTCAP.pdf> [Accessed 15 Apr. 2025].

DOE Malaysia. (2021). Forest-Related Environmental Impact Assessment (EIA) Guideline. [pdf] Department of Environment Malaysia. Available at: <https://www.doe.gov.my/wp-content/uploads/2021/08/FA-EIA-GUIDELINE-IN-MALAYSIA-1.pdf> [Accessed 15 Apr. 2025].

FAO. (2010). Terms and Definitions. [online]. Available at: <https://www.fao.org/4/am665e/am665e00.pdf> [Accessed 15 Apr. 2025].

- FMT. (2024). Sanusi nafi pembalakan punca mendapan selut di Tasik Muda. [online]. Available at: <https://suamerdeka.com.my/sanusi-nafi-pembalakan-punca-mendapan-selut-di-tasik-muda/> [Accessed 15 Apr. 2025].
- FoE Malaysia. (2020). Legal Classes of Forests and Conservation Areas in Malaysia. [online] Available at: <https://foe-malaysia.org/articles/legal-classes-of-forests-and-conservation-areas-in-malaysia-2/> [Accessed 15 Apr. 2025].
- FPD. (n.d.). Forest Products Development Sdn. Bhd. [online] Available at: <https://www.fpd.com.my/> [Accessed 15 Apr. 2025].
- FPD (2022). Background History. Available at: <https://www.fpd.com.my/backgroundhistory> [Accessed 8 February 2023].
- HSEClick. (2024). Environmental Impact: Proposed Logging and Forest Plantation Development. [online] Available at: <https://hseclick.com/environment/the-proposed-1446-36-hectares-3574-03-acres-of-logging-and-forest-plantation-development-within-part-of-the-approved-1625-70-hectares-4017-09-acres-in-part-of-compartment-4-5-9-11-13-18/>[Accessed 15 Apr. 2025].
- HSEClick. (2024). Project Visual Reference – Logging Development. [image] Available at: <https://hseclick.com/wp-content/uploads/2024/09/P1N-2.jpeg> [Accessed 15 Apr. 2025].
- Human Rights Commission of Malaysia (SUHAKAM) (2013). 'Report of the National Inquiry into the Land Rights of Indigenous peoples'. SUHAKAM: Kuala Lumpur.
- JAKOA. (2018). Senarai Kampung Orang Asli. Excel file.
- Land Acquisition Act 1960 (Act 486)
- Lambin, R., et al (2019). A case study of Orang Asli indigenous knowledge in traditional medicine. International Journal of Academic Research in Business and Social Sciences, 8 (4).
- The Borneo Project and Bruno Manser Fonds. (2023). Lost in Certification. [online] Available at: <https://lostincertification.info/> [Accessed 15 Apr. 2025].
- Macaranga. (2020). Revenue and Power Drive Forest Area Changes. [online] Available at: <https://www.macaranga.org/revenue-and-power-drive-forest-area-changes/> [Accessed 15 Apr. 2025].

Macaranga (2021). 'Deforestation Project in Pahang Exacerbates Orang Asli Land Rights Struggle'. Available at: <https://www.macaranga.org/yp-olio-pahang-orang-asli-land-rights-struggle/> [Accessed 15 Apr. 2025].

Malay Mail. (2019). No such thing as Orang Asli ancestral land in Perak. [online] Available at: <https://www.malaymail.com/news/malaysia/2019/07/29/no-such-thing-as-orang-asli-ancestor-land-in-the-state-perak-mb-told-ngos/1775783> [Accessed 15 Apr. 2025].

Malay Mail. (2023). Scorching heat forces Semaq Beri tribe to flee into forest. [online] Available at: <https://www.malaymail.com/news/malaysia/2023/06/06/scorching-heat-forces-semaq-beri-tribe-in-terengganu-to-escape-into-forest-in-search-of-cooler-dwellings/72787> [Accessed 15 Apr. 2025].

MalayMail (2017). 32,700 hectares gazetted as Orang Asli reserve land. Available at: <https://www.malaymail.com/news/malaysia/2017/11/25/32700-hectares-gazetted-as-orang-asli-reserve-land/1518113>[Accessed 15 Apr. 2025].

MalayMail (2024). 'Taiping High Court upholds Orang Asli land rights in Gerik, limits claims to core settlement area'. Available at: <https://www.malaymail.com/news/malaysia/2024/10/29/taiping-high-court-upholds-orang-asli-land-rights-in-gerik-limits-claims-to-core-settlement-area/155234> [Accessed 15 Apr. 2025].

MalaysiaKini (2023). Baling Flood Disaster: How Deforestation Destroyed the Mountain. [online] Available at: <https://rainforestjournalismfund.org/stories/baling-flood-disaster-how-deforestation-destroyed-mountain-chinese>[Accessed 15 Apr. 2025].

Malaysiakini. (2020). Orang Asli logging protest continues. [online] Available at: <https://www.malaysiakini.com/news/510776> [Accessed 15 Apr. 2025].

MTCC. (n.d.). Certification Bodies. [online] Malaysian Timber Certification Council. Available at: <https://mtcc.com.my/certification-bodies/> [Accessed 15 Apr. 2025].

MTCC. (n.d.). Certified Forests. [online] Available at: <https://mtcc.com.my/certified-forests/> [Accessed 15 Apr. 2025].

MTCC. (n.d.). Certification Programme. [online] Available at: <https://mtcc.com.my/certification-programme/> [Accessed 15 Apr. 2025].

MTCC. (n.d.). Clarification Regarding Criterion 6.11. [online] Available at: <https://mtcc.com.my/clarification-regarding-criterion-6-11-in-the-mci-sfm/> [Accessed 15 Apr. 2025].

MTCC. (2021). MTCS ST1002: 2021 [online]. Available at: <https://mtcc.com.my/wp-content/uploads/2022/02/MTCS-ST-1002-2021-MCI-SFM-Final-B5.pdf>. [Accessed 15 Apr. 2025].

NEPCon. (2018). Timber Risk Assessment: Peninsular Malaysia. [pdf] Preferred by Nature. Available at: <https://www.preferredbynature.org/sites/default/files/library/2018-10/NEPCon-TIMBER-Peninsular%20Malaysia-Risk-Assessment-EN-V1.3.pdf> [Accessed 15 Apr. 2025].

Nicholas, C. (2010). 'Orang Asli – Rights problems solutions: A Study Commissioned by Suhakam'. Available at: <https://www.suhakam.org.my/wp-content/uploads/2013/12/Orang-Asli-Rights-Problems-Solutions.pdf> [Accessed 15 Apr. 2025].

Nicholas, C. (2021). Looking Back, Looking Forward: Indigenous Peoples in Asia. [pdf] Available at: <https://aippnet.org/wp-content/uploads/2021/12/Looking-Back.Looking-Forward-copressed-by-Fuji-web.pdf> [Accessed 15 Apr. 2025].

Nordin, R., Witbrodt, M.A. and Yahya, M.S.H. (2016). Paternalistic approach towards the Orang Asli in Malaysia: Tracing its origin and justifications. *Geografia Online*, 12(6).

NRECC (2022). Malaysia National Biodiversity Strategy and Action Plan (NBSAP) v3. [pdf] Available at: <https://www.cbd.int/doc/world/my/my-nbsap-v3-en.pdf> [Accessed 15 Apr. 2025].

NST. (2022). Kg Iboi hit by floods for 11th time. [online] *New Straits Times*. Available at: <https://api.nst.com.my/news/nation/2022/12/856794/updated-kg-iboi-hit-floods-11th-time-july-4> [Accessed 15 Apr. 2025].

NST (2024). 'Over my dead body, Sanusi tells Penang CM over calls to set up Ulu Muda Basin Authority'. Available at: <https://www.nst.com.my/news/nation/2024/01/1005438/over-my-dead-body-sanusi-tells-penang-cm-over-calls-set-ulu-muda-basin> [Accessed 15 Apr. 2025].

PEFC. (n.d.). Facts and Figures. [online] Available at: <https://pefc.org/discover-pefc/facts-and-figures> [Accessed 15 Apr. 2025].

PEFC. (2022). UK Government Gives PEFC Top Scores. [online] Available at: <https://www.pefc.org/news/uk-government-gives-pefc-top-scores-confirms-acceptance-for-public-procurement> [Accessed 15 Apr. 2025].

PEKA Malaysia. (2019). Press Statement: Orang Asli Court Case. [Facebook] Available at: <https://www.facebook.com/PEKAMALAYSIA/posts/press-statement-peka-malaysia-presidentjudgement-day-of-court-case-orang-asli-of/423451266972446/> [Accessed 15 Apr. 2025].

Perbadanan Bekalan Air Pulau Pinang. (2020). Logging 25,000 hectares: 15.3% of the Ulu Muda water catchment area will be destroyed. [online]. Available at: [https://pba.com.my/pdf/news/2020/31122020\\_PBAPP\\_15pc\\_of\\_UluMuda-destroyed\\_2.pdf](https://pba.com.my/pdf/news/2020/31122020_PBAPP_15pc_of_UluMuda-destroyed_2.pdf) [Accessed 15 Apr. 2025].

PlanMalaysia (2011). Rancangan Struktur Negeri Kedah. [pdf] Universiti Putra Malaysia. Available at: [http://myagric.upm.edu.my/id/eprint/16106/1/LAPORAN\\_RSNK2020.pdf](http://myagric.upm.edu.my/id/eprint/16106/1/LAPORAN_RSNK2020.pdf) [Accessed 15 Apr. 2025].

PlanMalaysia. (2020). Rancangan Struktur Negeri Pahang 2050. [pdf] Universiti Putra Malaysia. Available at: [http://myagric.upm.edu.my/id/eprint/16103/1/RSNPahang%202050\\_15032019.pdf](http://myagric.upm.edu.my/id/eprint/16103/1/RSNPahang%202050_15032019.pdf) [Accessed 15 Apr. 2025].

PlanMalaysia. (2022). Draf Rancangan Struktur Negeri Perak 2040. [online] Available at: <https://www.planmalaysia.gov.my/index.php/pages/view/654?cats=13> [Accessed 15 Apr. 2025].

- R.AGE. (2025). Indigenous Orang Asli villages in Malaysia are defending forests from logging | BEHIND THE BLOCKADE. [video] Available at: <https://www.youtube.com/live/djRw7fZu0HQ> [Accessed 15 Apr. 2025].
- RimbaWatch (2024). State of the Malaysian Rainforest 2024. [pdf] Available at: [https://9b2d2d75-7adf-4ea5-8c47-1b96d3a7eaf6.filesusr.com/ugd/a4715a\\_ad144495d1fa46bf857166bda8e2e8a9.pdf](https://9b2d2d75-7adf-4ea5-8c47-1b96d3a7eaf6.filesusr.com/ugd/a4715a_ad144495d1fa46bf857166bda8e2e8a9.pdf) [Accessed 15 Apr. 2025].
- Rosli, S.N.A., Said, S., Norizan, I. and Mohd, B. (2024). MANAGEMENT PLAN FOR THE HIGH CONSERVATION VALUE FORESTS (HCVF) IN CHERUL FOREST CONCESSION (CFC), TERENGGANU, MALAYSIA FOR THE PERIOD 2018–2027. [pdf].
- Rudge, A. (2023). *Sensing Others: Voicing Batek Ethical Lives at the Edge of a Malaysian Rainforest*. Lincoln: University of Nebraska Press.
- Sagong Tasi & Ors v Selangor State Government & Ors [2002] 2 MLJ 591 (HC)
- Selangor State Government & Ors v Sagong Bin Tasi & Ors [2005] 6 MLJ 289 (CA)
- Sinar Harian. (2023). Penduduk tujuh kampung Orang Asli bantah pembalakan di Bukit Galla. [online]. Available at: <https://www.sinarharian.com.my/article/282592/edisi/melaka-ns/penduduk-tujuh-kampung-orang-asli-bantah-pembalakan-di-bukit-galla>. [Accessed 8 March 2026].
- Sinar Harian. (2024). 'Isu pembalakan Ulu Muda: Jangan main politik sempit, serlah kebodohan sendiri - Sanusi'. [online]. Available at: <https://www.sinarharian.com.my/article/646849/berita/nasional/isu-pembalakan-ulu-muda-jangan-main-politik-sempit-serlah-kebodohan-sendiri---sanusi>. [Accessed 8 March 2026].
- Shah, D.S.M., Salim, M.N.F.M., Salim, M.S.A.M. et al. (2025). Traditional Ecological Knowledge of the Jah Hut Community, Kuala Krau, Temerloh and Their Use of Forest Resources. *Asian Journal of Research in Education and Social Sciences*: 7(5).
- Subramaniam, Y. and Nicholas, C. (2018). 'The Courts and the Restitution of Indigenous Territories in Malaysia'. *Erasmus Law Review*, 11(1).
- Taman, F.N. and Kasim, R. (2021). Kepentingan Perwartaan Tanah Rizab Orang Asli. *Research in Management of Technology and Business*, 2(1).
- The Malaysian Insight. (2020). Orang Asli protest logging, court battles continue. [online]. Available at: <https://www.themalaysianinsight.com/s/227454>. [Accessed 8 March 2026].
- The Malaysian Insight. (2023). Gombak Orang Asli village agrees to relocate, says department. [online]. Available at: <https://www.themalaysianinsight.com/s/448976>. [Accessed 8 March 2026].
- The Malaysian Insight (Bahasa). (2022). Penduduk Tasik Kenyir tidak percaya pembalakan bukan punca banjir. [online]. Available at: <https://www.themalaysianinsight.com/bahasa/s/370330>. [Accessed 8 March 2026].
- The Star. (2020). Logging has destroyed our land, say Orang Asli. [online]. Available at: <https://www.thestar.com.my/news/nation/2020/12/14/logging-has-destroyed-our-land-say-orang-asli>. [Accessed 8 March 2026].
- The Star. (2023). One Year On, Kampung Iboi Water Surge Tragedy Still Fresh in Mind. [online]. Available at: <https://www.thestar.com.my/news/nation/2023/07/04/one-year-on-kampung-iboi-water-surge-tragedy-still-fresh-in-mind>. [Accessed 8 March 2026].

UN. (2007). United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). [online]. Available at: [https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP\\_E\\_web.pdf](https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf). [Accessed 8 March 2026].

UNESCO. (2023). Periodic review reports and follow-up information received since the 31st session of the MAB-ICC. [online]. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000380701>. [Accessed 8 March 2026].

Wakker, E. (2021). The State of Virgin Jungle Reserves in Pahang, Peninsular Malaysia. [Unpublished].

WWF. (2016). Tiger Conservation Landscape Data. [online]. Available at: <https://globil.panda.org/maps/350391d0933c407b917fb6aa22fb3acf>. [Accessed 8 March 2026].

WWF-Malaysia. (n.d.). Status of Malayan Tigers. [online]. Available at: [https://www.wwf.org.my/tiger\\_facts/status\\_of\\_malayan\\_tigers/](https://www.wwf.org.my/tiger_facts/status_of_malayan_tigers/). [Accessed 8 March 2026].

