

Public Summary

Strategic Forest Management Plan

Bahau - Kahei Forest Management Unit (T/3236)
(2016 - 2026)

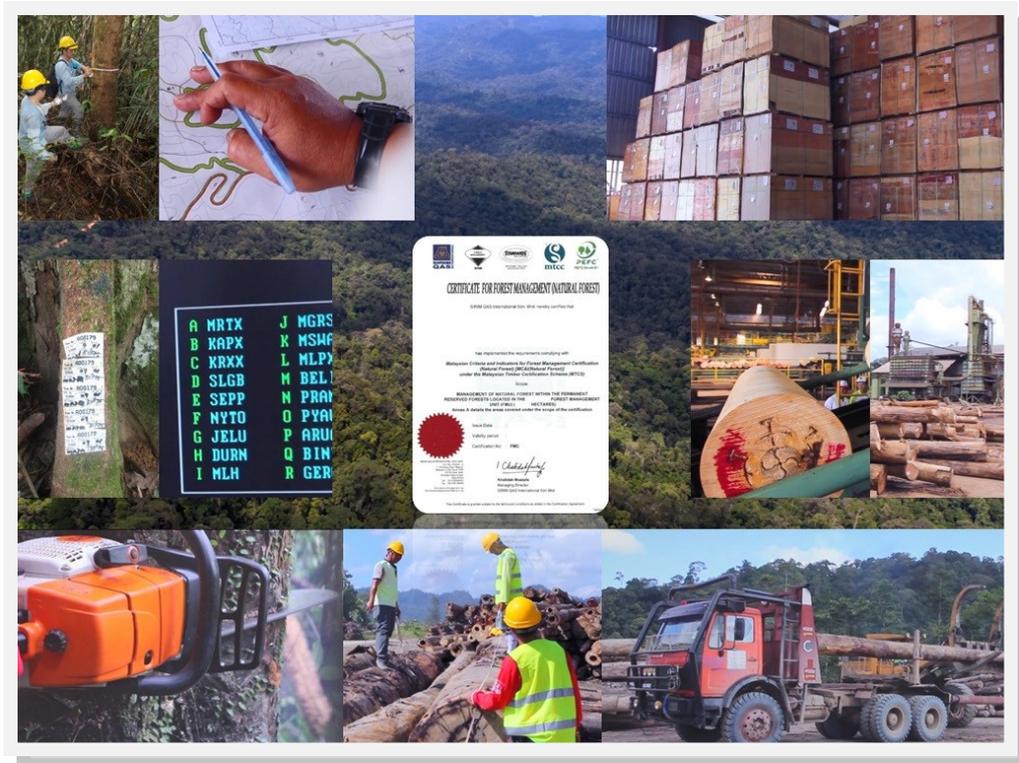


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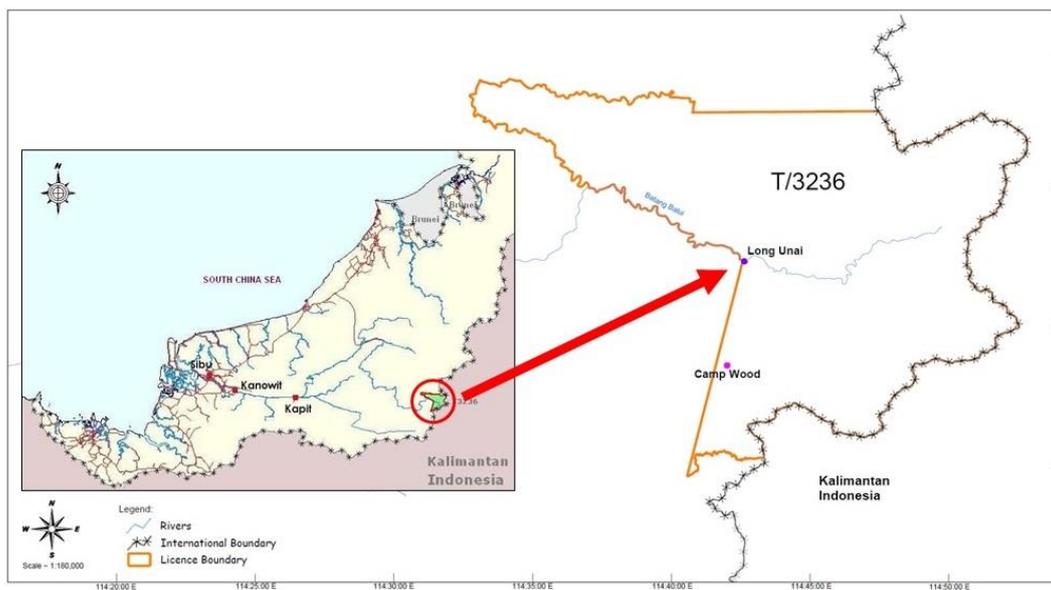
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Introduction

The Bahau-Kahei Forest Management Unit (i.e. the FMU), with the registered Forest Timber License No. T/3236, is located in the Upper Belaga of Kapit District, Sarawak, Malaysia; about 400 Km from Sibu (by river and logging road transportation).

It covers an area of 45,035 hectares and borders to the east with North Kalimantan, Indonesia (Map I).



Map I. The location of Bahau-Kahei FMU (T/3236).

Legal Status

The Forest Timber License No. T/3236 was issued to Ankura Trading (M) Sdn. Bhd. on October 15, 1990 and subsequently renewed until October 14, 2026.

Jaya Tiasa Holdings Berhad is currently managing the FMU as its main logging contractor and management representative.

Forest Management Plan

The revised 'Bahau-Kahei FMU's Strategic Forest Management Plan' was approved by the Forest Department Sarawak (FDS) on April 17, 2017, of which it is a prerequisite to apply for Stage I Audit under the MC&I (Natural Forest) certification program.

The revised FMP also includes additional information related to socio-economic (dated June 2010); environmental impact assessment (dated June 2013); accurate land use zonation and timber stocking distribution (dated 2016); and growth and yield data (dated 2016).

Management Prescriptions

The FMU adopts the multi-purpose, *Sustainable Forest Management with Reduced Impact Logging* (SFM-RIL) as its management tool.

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The objective is to attain sustainability (long-term commitment) via accountable, compatible and viable forest management practices; with emphasis on SFM-RIL-related manpower training and compliance assessment.

Key Management Policies

There are currently three policies and one declaration been adopted by the FMU; namely:

- a. *Policy Statement on Sustainable Forest Management* (SFM; dated March 1, 2017);
- b. *Health, Safety and Environment Policy Statement* (HSE; dated January 1, 2017);
- c. *Good Social Practices Policy* (GSP; dated March 15, 2016); and
- d. *Declaration of Non-use of Pesticides* (NP; dated September 1, 2017).

Therefore, the FMU shall commit to implement these key management policies to comply with the required standards as stated in the MC&I (Natural Forest) certification program (i.e. Forest Management Certification (FMC)).

Forest Resource Assessment

The FMU consists of about 85% Permanent Forest (i.e. Bahau PF (34%) and Linau PF (66%)) and 15% State land. The major forest type in this logged-over forest is of Hill Mixed Dipterocarps (HMD).

In 2016, high resolution satellite imagery was acquired and analysed. The **Production** area – made of Terrains I, II, and III – constitutes about 66% of the FMU area; whereas the **Protection** area – made of Terrain IV, shifting cultivation area, the international buffer and river buffer – constitutes about 34% of the area.

Based on this satellite imagery, the FMU is able to categorize its timber resource into low, medium and high stocking density. Another advantage is that it enables pre-assessment of timber stocking density at the block level.

The growth and yield data from the long-term research plots also revealed that the natural recruitment and succession are adequate. Therefore, it is sufficient to attain sustainable harvesting with Annual Allowable Cut (AAC) of >29,000 m³/year. Table I shows the number of coupes and total area to be harvested for the period of 2016 – 2026.

Table I. The planned General Harvesting Plan for Coupes 1 – 10 (2016 – 2026).

| Coupe Year | Coupe No. | Net Area (ha.) |
|-------------------|------------------|-----------------------|
| 2016 / 2017 | 1 | 2,499 |
| 2017 / 2018 | 2 | 1,924 |
| 2018 / 2019 | 3 | 1,684 |
| 2019 / 2020 | 4 | 2,493 |
| 2020 / 2021 | 5 | 1,058 |
| 2021 / 2022 | 6 | 1,661 |
| 2022 / 2023 | 7 | 1,347 |
| 2023 / 2024 | 8 | 2,054 |
| 2024 / 2025 | 9 | 1,135 |
| 2025 / 2026 | 10 | 1,516 |
| | | 17,371 |

Management System

The current RIL practice is a selective, ground-based harvesting system using tractor for timber extraction; whereas other similar system is also being looked for. The approved cutting limits for harvestable trees are ≥ 50.0 cm diameter at breast height (dbh) for Dipterocarps and ≥ 45.0 cm dbh for Non-Dipterocarps.

The Operational Inventory System Database (OISD) has been developed in May 2017, using the two-way timber volume computation for the four timber groups. Such initiative is part of the long-term management of timber resource database for i) Chain-of-Custody tracking; ii) species diversity and population dynamics; and iii) future timber stocking.

Harvestable trees are tagged using the white color tag (Figure 1). Potential crop trees at 30.0 cm dbh and below the approved cuttings limits are to be tagged with the orange color tag (Figure 2), while seed, fruit and protected trees are to be tagged with the blue color tag (Figure 3).

Apart from the long-term research plots, both Pre- and Post-F sampling plots shall be established to monitor logging damage and growth of residual timber stand.

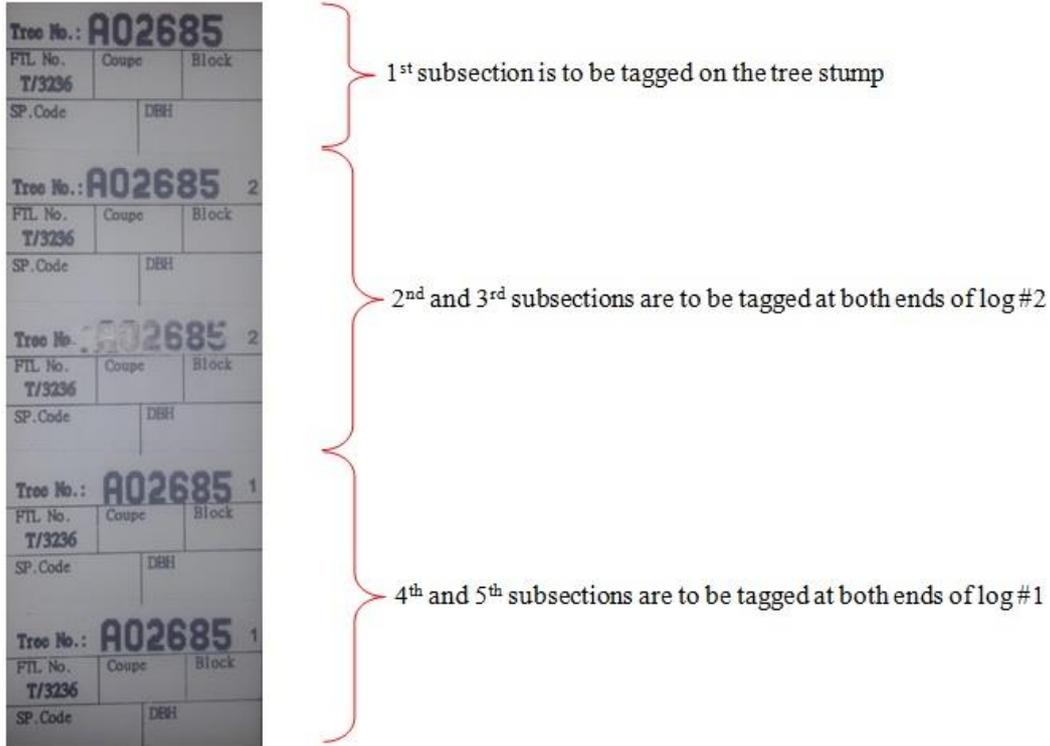


Figure 1. Harvestable tree tag for trees with the approved cutting limits.

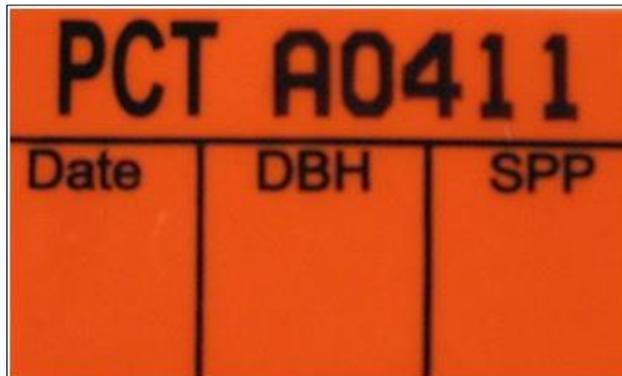


Figure 2. The Potential Crop Tree (PCT) tag for the undersize trees.

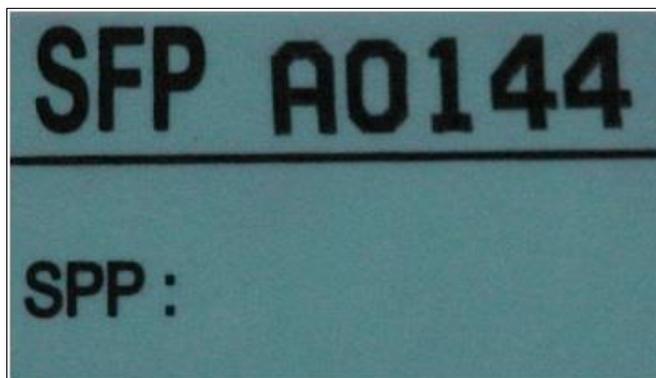


Figure 3. The SFP tag for seed, fruit and protected trees.

Environmental Considerations

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The Environmental Impact Assessment (EIA) Report entitled '*Hill Logging under Forest Timber Licence No. T/3236 at Batang Balui – Sg. Kahei – Sg. Aput, Kapit Division, Sarawak*' was approved by the Natural Resources and Environment Board Sarawak (NREB) on October 3, 2013.

As the FMU is located within the *Heart of Borneo* (HoB), thus it shall adhere to the mitigation measures prescribed in the EIA Report.

High Conservation Value Areas (HCVA)

The WWF-Malaysia's 2009 *High Conservation Value Forest (HCVF) Toolkit for Malaysia* is the main reference for HCVA identification in the FMU.

Based on its six main values and subsequent attributes, there are eight High Conservation Value Area (HCVA) been established within the FMU area; mainly for water catchment, protection of Terrain IV, burial sites, a saltlick and international border buffer.

Baseline wildlife studies have also been initiated to identify the Endangered, Rare and Threatened (ERT) plants and animals.

Community Wellbeing

In June 2010, Envisar Sdn. Bhd. – been commissioned by the FDS – had produced a report entitled '*A Socio-economic Study of the Communities found within and around the Forest Management Units (FMUs) undergoing Certification in the Kapit Division of Sarawak*'.

The local community – comprises of ethnic Punan and Kenyah (dominated by Punan) – is settled harmoniously at Long Unai (inside the FMU area) since 1984 (at the Sg. Unai tributary of Upper Batang Balui) (Map 1).

Subsistence farming and the collection of Non-Timber Forest Products (NFTP) are the main traditional economic activity at Long Unai. Nowadays, some of them are being employed at the nearby timber camps and major towns. In this regards, the FMU is committed to prioritize job opportunities for them; and together with RIL practices, shall improve upon their economic and environmental wellbeing.

Local community is one of the important stakeholders in the FMU area. Therefore, a Conservation and Community Development Committee (CCDC) has been established; to foster good relationship between the FMU and the community.

Mutual understanding and benefits between both parties also play an important role, as long as forest operations within the FMU area is concerned, particularly related to SFM and FMC.

Research Collaboration

The FMU is intended to collaborate with research institutions on Post-F inventory and wildlife population dynamics in the future, to keep on updates on its monitoring results.

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Initiatives

On July 26 – 28, 2017, the FMU has undertaken the Stage I Audit against the MC&I (Natural Forest) certification program conducted by SIRIM QAS International Sdn. Bhd., and currently preparing for the Stage II Audit.