**Public Summary**

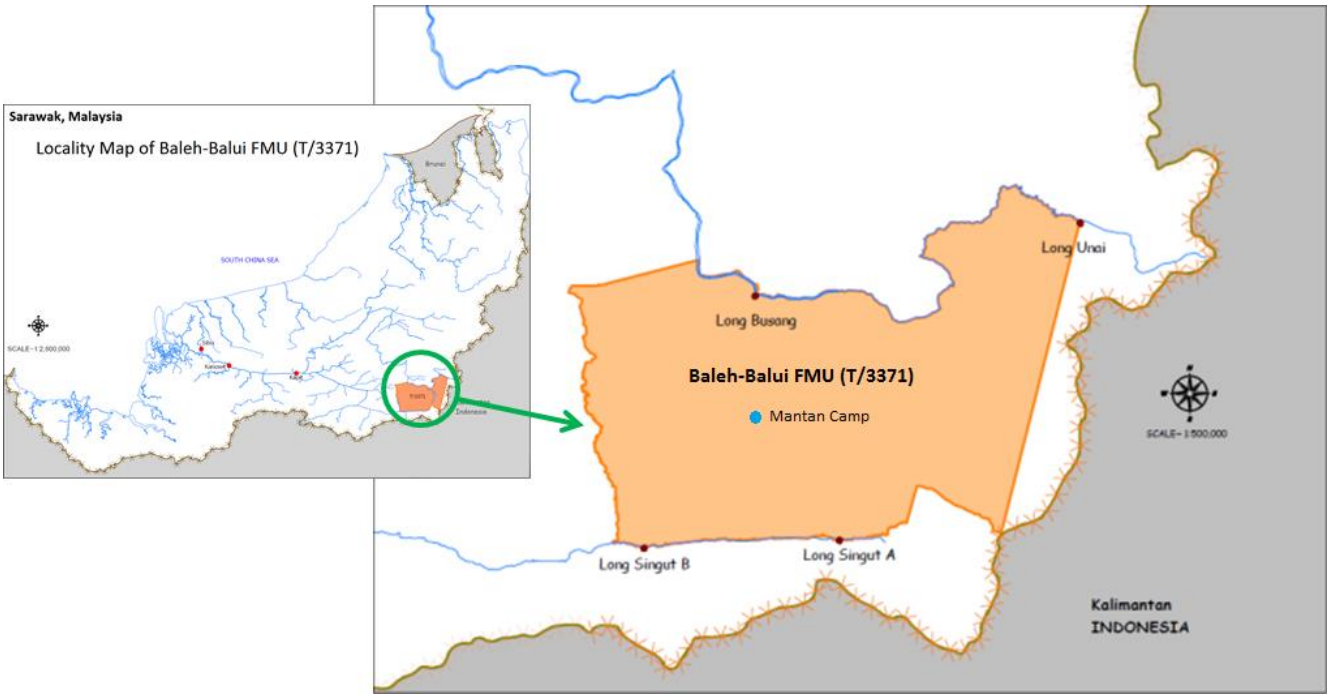
# Baleh-Balui FMU (T/3371)

**Forest Management Plan (FMP)**

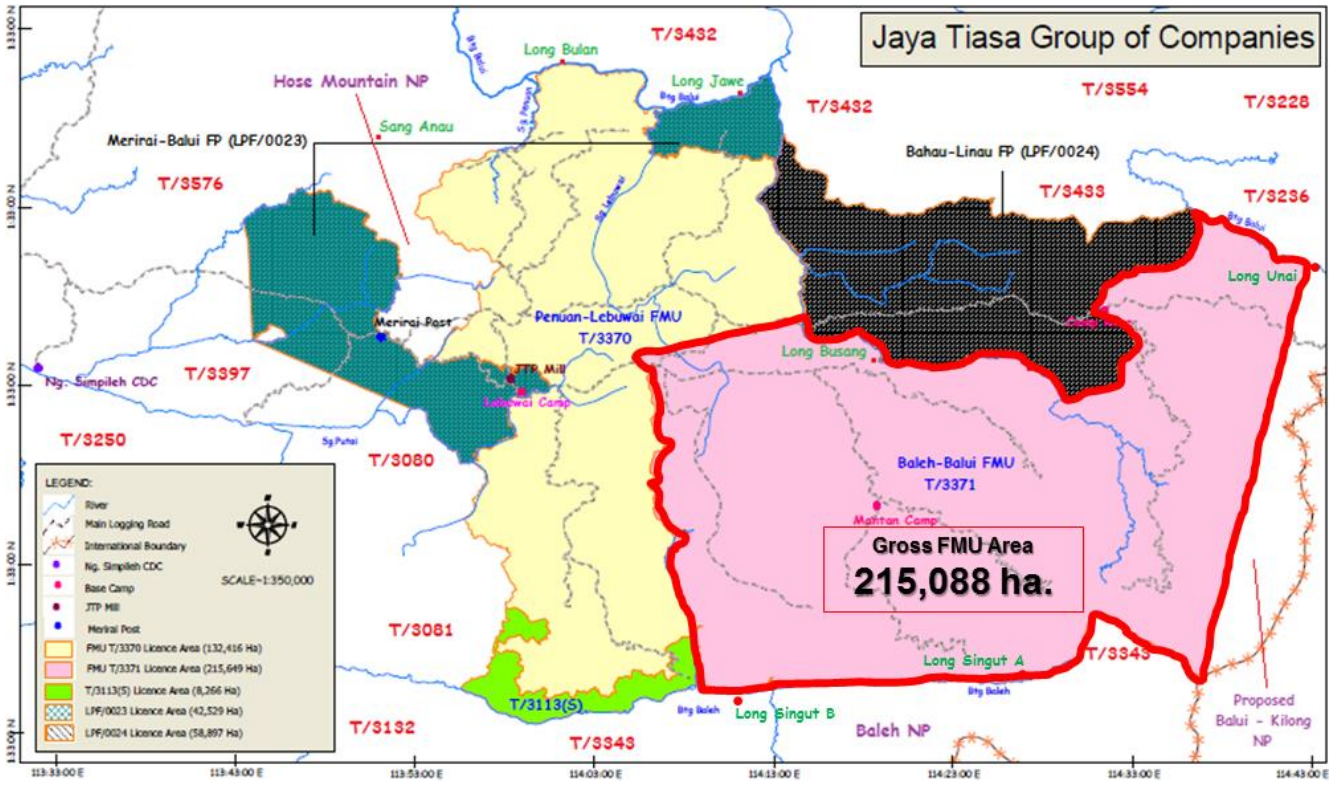
## Background Information

- Baleh-Balui Forest Management Unit (FMU) consists of Hill Mixed Dipterocarp Forest (HMDF) with a gross area under Forest Management Certification (FMC) of about 215,088 hectares.
- It is situated between latitudes 1˚ 33’ 36.22” N – 2˚ 00’ 13.66” N and longitudes 114˚ 05’ 21.87” E – 114˚ 42’ 56.70” E; with the altitude ranged from 154 m.a.s.l. – 1,914 m.a.s.l.
- It is being surrounded by various Forest Timber Licences (FTL) and Licences for Planted Forest (LPF). FTL T/3370 is located on the western side of the FMU; LPF/0024 is located on the northern part of the FMU; the proposed Balui-Kilong National Park is located at the eastern part of the FMU; and Baleh National Park is located at the southern part of the FMU.
- Sixty five percent of the FMU is situated within the *Heart of Borneo (HoB) Initiative*; which also formed the upper catchment area for Baleh HEP Dam (located West of the FMU) and Bakun HEP Dam (located North-NorthWest of the FMU).
- The locality maps are as shown in **Map 1** and **Map 2**; while **Map 3** shows the access and log transportation routes for the FMU.

**Map 1:** The locality map of Baleh-Balui FMU (T/3371).



**Map 2.** Various timber licences surrounding Baleh-Balui FMU (T/3371).




**Map 3:** The access and log transportation routes showing the locations for (i) Baleh-Balui FMU (the source of legal and sustainable timber); (ii) JTH Sempileh and JTH Amang (the collection and distribution centers); (iii) Sibu (local sales point); and (iv) Tanjong Manis Port (the export point).




## Legal Status

- FTL No. T/3371 (Revised) was granted by Forest Department Sarawak (FDS) on 30th April 2018 – as a result of amalgamation of FTL Nos. T/3114 and T/3371 (Original).
- Jaya Tiasa Holdings Berhad is both the License holder (since June 1999) and FMU Manager; while Mantan Sdn. Bhd. is the main logging contractor.

## The Essence

- The revised General Harvesting Plan (GP) Map – with 30 coupes and a 30-year cutting cycle – was approved by FDS on 5th December 2018.
- FDS has finally granted the full approval for the revised FMP on 20th April 2022; with a 30-year cutting cycle as stipulated in the current State policy on forestry matters. It aims to ensure that the management prescriptions for the 195,284 hectares of logged-over production area are complying with good forest management practices.
- The management objectives are:
  a. the forest planning approach shall embrace the principle of multi-purpose forest management through matching differing interests in the equation and serving the needs of relevant stakeholders involved and affected by forest operations;
  b. the forest shall be managed with the aim to maintain and/or enhance the integrity of forest ecosystem functions and also to strengthen its self-renewal capacity;
  c. forest management measures shall be directed to optimize the production of high quality timber and non-timber products, taking into account the restrictions and needs arising from conservation efforts in relation to environment and ecosystem concerns cum socio-economic requirements;
  d. the precautionary principle shall apply wherever the effects of an operational measures are unknown or potentially negative;
  e. the planning, implementation and monitoring process of forest management shall be facilitated and supported by continuous consultation with the relevant stakeholders; and
  f. in implementing the FMP, continuous effort shall be undertaken to improve and achieve its objectives, thus, contributing to the development of sustainable multiple benefits to all stakeholders in the FMU.
- With those clear defined objectives, the FMP also works towards the compliance of the *MC&I SFM* and other certification schemes that endorsed it.
- The mid-term review for the FMP is at every 15 years. However, it may be reviewed at a 5-year interval to include the latest monitoring results of High Conservation Value Area (HCVA), including research techniques and output that deem appropriate.

## Key Management Policies

- The FMU is being governed by the following three key policies:
  - Sustainable Forest Management (SFM) Policy;
  - Health, Safety and Environment (HSE) Policy; and
  - Good Social Practices (GSP) Policy.

## Forest Resource Assessment

- The FMU constitutes about 93.2% of Permanent Forest Estate (PFE; comprised of Baleh Protected Forest (PF) at 28.7%; Bahau PF (1st. Ext.) at 64.5%); and 6.8% of Stateland (Sl).
- The major forest type is Hill Mixed Dipterocarp Forest (HMDF).
- The FMU is able to produce harvestable timber volume at a rate of 1.0 $m^3$/ha/year from its 195,284 hectares of logged-over production area. The projected yield *vs.* projected harvest over the 30-year cutting cycle is able to produce a surplus volume exceeding 2.0 million $m^3$. Such outcome, however, needs to be further substantiated as more Permanent Sample Plots (PSP) assessment results are available.
- The Annual Allowable Cut (AAC) is estimated at 97,642 $m^3$/year over the harvesting period of 30 years.

## Management Prescriptions and System

- The FMU adopts SFM as it is (i) socially compatible; (ii) ecologically and environmentally sound; and (iii) economically viable.
- More emphasis is on the Reduced Impact Logging (RIL)-related manpower and compliance assessment to attain (i) recognition for Forest Management Certification (FMC); and (ii) sustainability of forest resource.
- To accommodate the 30-year cutting cycle, a 30-year harvesting period has been planned. The environment shall be safeguarded through the maintenance of an extensive road network that currently serves the existing 30 coupes.
- Application of RIL is based on selective, tractor-based harvesting system; with possibilities to explore other similar harvesting system.
- The Pre-harvest inventory employs the approved cutting limits for harvestable trees at ≥ 45.0 cm diameter at breast height (dbh) for Non-Dipterocarps and ≥ 50.0 cm dbh for Dipterocarps. Potential crop trees (PCT) at 30.0 cm dbh and below the approved cutting limits are also being enumerated, together with seed, fruit and protected (SFP) tree species. Such inventory also employs climber cutting as a silvicultural treatment to liberate PCT and enable it to grow into desirable timber trees for the next harvest.
- In addition to establishment and assessment of PSP, the Diagnostic Sampling (DS) plots have also been established in the water catchment area to obtain the benchmark data for residual timber stand. Post-harvest DS plots are to be established in the future to monitor logging damage and growth of residual timber stand.

- Forest Landscape Restoration (FLR) will also be carried out in post-logged blocks by planting indigenous tree saplings along the skid trails and log landings.

## Environmental Considerations

- The Environmental Impact Assessment (EIA) Report entitled '*The Proposed Timber Harvesting within the Baleh-Balui Forest Management Unit under the Forest Timber Licence (FTL) No. T/3371 at the Upper Batang Balui – Batang Baleh Area, Kapit Division, Sarawak*' was approved by the Natural Resources and Environment Board (NREB) Sarawak on 20th March 2019.
- The FMU shall adhere to the mitigation measures as prescribed in both *General* and *Specific Terms and Conditions* of the approved EIA and EMP Reports.

## High Conservation Value Areas (HCVA)

- The WWF-Malaysia's 2009 '*High Conservation Value Forest (HCVF) Toolkit for Malaysia*' was the main reference for HCVA identification in the FMU in March 2017 and the report was produced in April 2019 (**Figure 1**). The presence of HCV attributes that shall be managed and monitored are been described in the '*Public Summary (for) Baleh-Balui FMU (T/3371): Summary of Identified High Conservation Value (HCV) Attributes*'.
- Baseline wildlife studies (*i.e.* Biodiversity) have also been initiated in 2017 to identify the *Endangered, Rare and Threatened* (ERT) plants and animals; and the final report was produced in April 2019 (**Figure 2**).

**Figure 1:** The HCV report for Baleh-Balui FMU (T/3371).

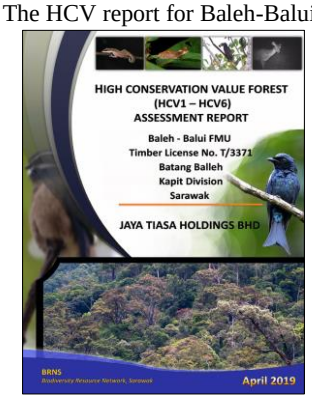
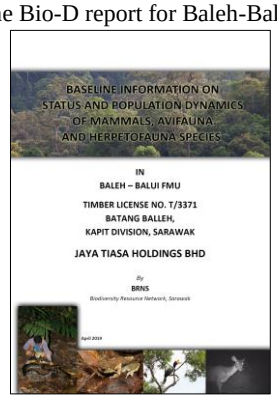



**Figure 2:** The Bio-D report for Baleh-Balui FMU (T/3371).




## Well-being of Community and Forest Workers

- In 2018, JTHB has produced a report entitled '*A Social Impact Assessment (SIA) Report of Forest Operations in Baleh-Balui Forest Management Unit (FMU), Kapit Division, Sarawak*' that covers Long Busang, Long Unai and Long Singut (A and B) (**Figure 3**).

**Figure 3:** JTHB's SIA report in 2018 for FMU T/3371.




- There are four settlements at the vicinity of the FMU. Two of the settlements are located inside of the FMU: (i) Long Busang to the North of the FMU; and Long Singut A (also known as 'Long Singut') to the South of the FMU. The other two settlements are located outside of the FMU: (i) Long Unai to the NorthEast by East of the FMU; and (ii) Long Singut B (also known as 'Rantau Penora' (as been indicated in the Google Maps)) to the South of the FMU (**Maps 1** and **2**). The locals are predominantly Kenyah; for Long Unai, however, it has a mixed population of Kenyah and Penan.
- Subsistence farming and the collection of Non-Timber Forest Products (NTFP) are the main traditional economic activities by the locals in the FMU area.

- 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 their economic and environmental wellbeing.
- Local communities are one of the important stakeholders in the FMU area. Therefore, each Community Representative Committee (CRC) for Long Busang, Long Unai and Long Singut (A and B) has been established and officially endorsed by FDS: (i) to foster good relationship between the FMU and the communities; and (ii) to interconnect with the relevant government agencies.
- Mutual understanding and benefits between the FMU and the communities also play an important role, as long as forest operations within the FMU area is concerned, particularly related to SFM and FMC. The FMU shall interact with affected communities by adhering to Free, Prior and Informed Consent (FPIC) principle; Conflict Resolution Procedure (CRP) is also in place to address on any grievances.
- To attain the well-being of forest workers, the FMU shall adopt both GSP and HSE Policies to provide good and safe working environment for its employees. The Complaint and Grievance Procedure (CGP) is also in place to better serve the workers' interests.

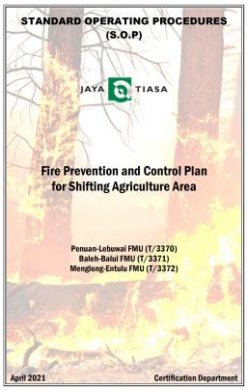
## Monitoring

- Frequent monitoring is vital to evaluate the population dynamics of both flora and fauna (human aspects included), including the condition of the environment due to timber harvesting activities.
- Among the required monitoring to be implemented:
  - PSP: to evaluate current forest condition and tree growth rate; including the observed changes in the tree population;
  - Post-harvest DS: to evaluate current forest condition and tree growth rate; including the observed changes in the tree population;
  - HCVA (HCV 1 – HCV 6): to monitor any changes within the FMU, including the population dynamics of flora, fauna and local community, as a result of any changes in the State Government's policy pertaining to Protection Area; and also due to effects of timber harvesting activities;
  - SIA: to monitor the well-being and livelihood of local community (FMU forest workers included), as a result of timber harvesting activities that is taking place in the FMU;
  - Environmental Compliance Assessment (ECA) / Environmental Monitoring Report (EMR): to monitor and safeguard the environment (especially on harvesting practice, river water quality, *etc.*), as a result of timber harvesting activities that is taking place in the FMU; and
  - HSE: to monitor the well-being of FMU forest workers at their respective work place.

## Forest Fire Management Plan and Climate Change Mitigation Measures

- The above plans are new addition to the FMP that include risk assessment, prevention and control measures. The '*SOP on Fire Prevention and Control Plan for SA*' is also available (**Figure 4**).

**Figure 4:** The '*SOP on Fire Prevention and Control Plan for SA*' at FMU level.




## Budget Allocation to Implement FMC

- Budget allocation is to be reviewed from time to time; to enhance the FMU's capabilities in planning, implementing and monitoring its forest management and operations.

## Research Collaboration

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

## Initiatives

- The FMU has undertaken remote Stage 1 Audit on 4th – 5th January 2022 – against the *Malaysian Criteria and Indicators for Sustainable Forest Management* (MC&I SFM) certification program – and has been recommended to proceed to Stage 2 Audit by SIRIM QAS International Sdn. Bhd.

***This document has been updated on 20th June 2022 (Monday).***