

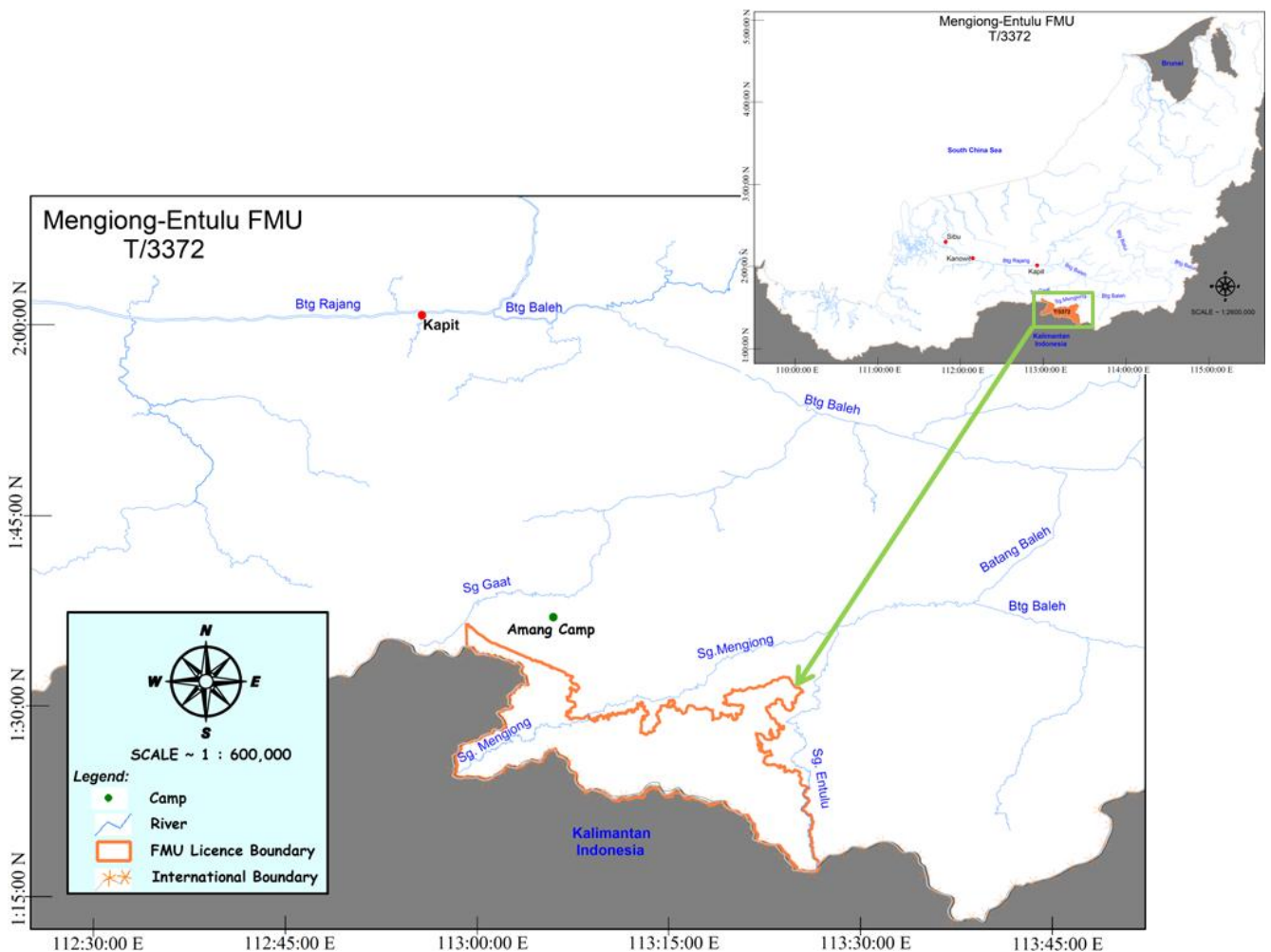
Mengiong-Entulu FMU (T/3372)

Forest Management Plan (FMP)

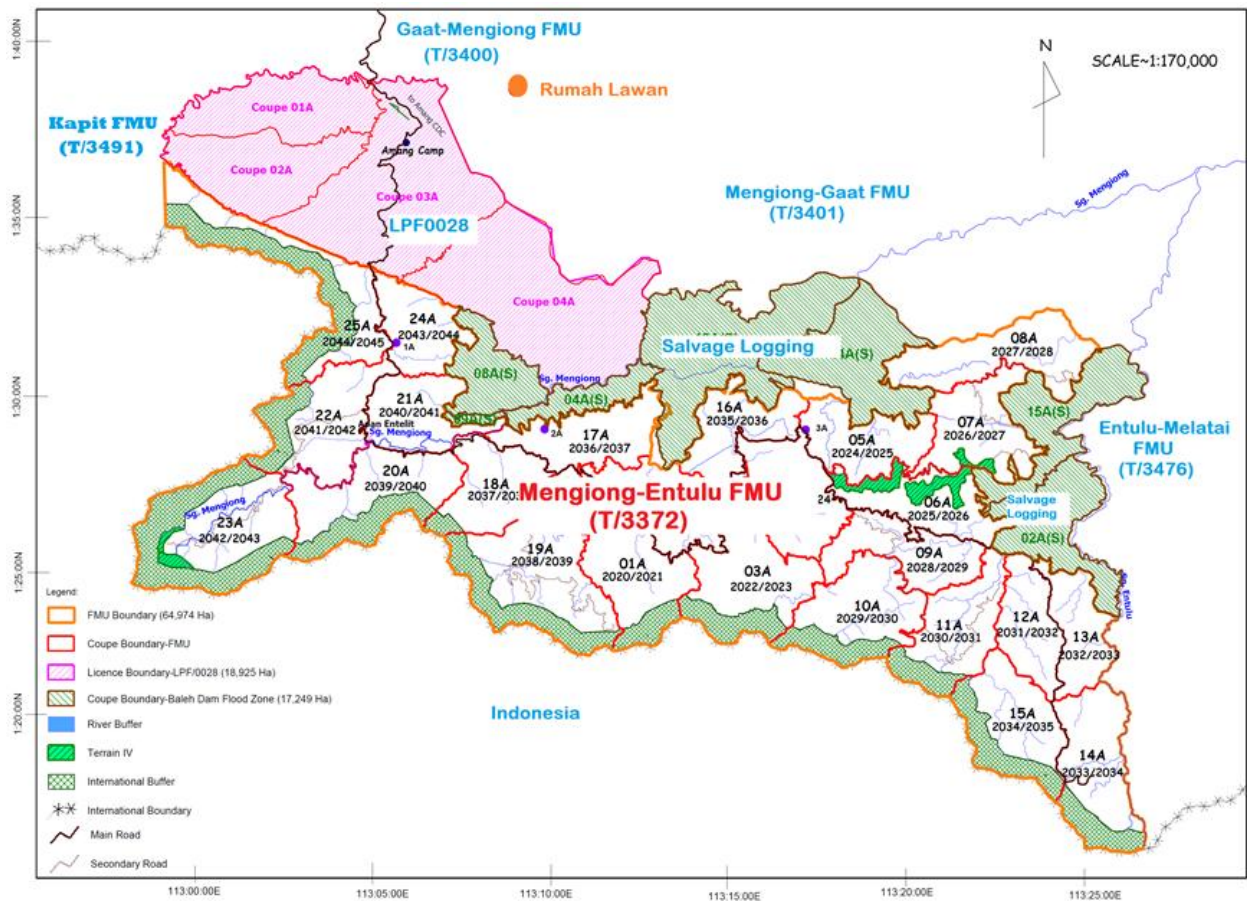
Background Information

- Mengiong-Entulu Forest Management Unit (FMU) consists of Hill Mixed Dipterocarp Forest (HMDF) with a gross area under Forest Management Certification (FMC) of about 64,974 hectares.
- It is situated between latitudes $1^{\circ} 17' 2.8''$ N – $1^{\circ} 36' 34.7''$ N and longitudes $112^{\circ} 58' 16.9''$ E – $113^{\circ} 26' 45.1''$ E; with the altitude ranged from 245 m.a.s.l. – 1,425 m.a.s.l.
- It is being surrounded by various Forest Timber Licences (FTL) and Licences for Planted Forest (LPF). Gaat-Mengiong FMU (T/3400), Mengiong-Gaat FMU (T/3401) and Guanaco Maujaya Forest Plantation (LPF/0028) are located on the Northern side of the FMU; whereas Kapit FMU (T/3491) is located on the North-western side of the FMU; and Entulu-Melatai FMU (T/3476) is located on the Western side of the FMU. To the South, it is bordered with Indonesia's West Kalimantan (KALBAR).
- The FMU is entirely situated within the Baleh Protected Forest-cum-Heart of Borneo (HoB) Initiative; which also formed the upper catchment area for Baleh HEP Dam (located NorthEast by East 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 Mengiong-Entulu FMU (T/3372).



Map 2. Various timber licences surrounding Mengiong-Entulu FMU (T/3372).



Map 3: The access and log transportation routes showing the locations for (i) Mengiong-Entulu FMU (the source of legal and sustainable timber); (ii) JTH Amang (the collection and distribution center); (iii) Sibu (local sales point); and (iv) Tanjung Manis Port (the export point).



Legal Status

- FTL No. T/3372 was granted by Forest Department Sarawak (FDS) on 22nd June 1999; and is currently valid for the period of 1st January 2023 – 31st December 2023.
- Jaya Tiasa Holdings Berhad is the License holder-cum-FMU Manager; while Mantan Sdn. Bhd. is the main logging contractor.

The Essence

- The revised General Harvesting Plan (GP) Map – with 25 coupes and a 25-year cutting cycle – was approved by FDS on 13th October 2021.
- FDS has finally granted the full approval for the revised FMP on 14th April 2022; with a 25-year cutting cycle as stipulated in the current State policy on forestry matters. It aims to ensure that the management prescriptions for the 53,034 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 major forest type is Hill Mixed Dipterocarp Forest (HMDF).
- The FMU is able to produce harvestable timber volume at a rate of 1.0 m³/ha/year from its 53,034 hectares of logged-over production area. The projected yield vs. projected harvest over the 25-year cutting cycle is able to produce a surplus volume exceeding 500,000 m³. 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 31,820 m³/year over the harvesting period of 25 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 25-year cutting cycle, a 25-year harvesting period has been planned. The environment shall be safeguarded through the maintenance of an extensive road network that currently serves the existing 25 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 ‘*Environmental Impact Assessment (EIA) for the Timber Harvesting within the Mengiong-Entulu Forest Management Unit under the Forest Timber Licence No. T/3372 at Sg. Mengiong-Sg. Entulu Area, Kapit District, Kapit Division, Sarawak*’ (**Figure 1**) was approved by the Natural Resources and Environment Board (NREB) Sarawak on 4th September 2020.
- The draft report of ‘*Environmental Management Plan (EMP) for the Timber Harvesting within Coupes 01A to 05A of the Mengiong-Entulu Forest Management Unit (FMU) under the Forest Timber Licence (FTL) No. T/3372 at Sg. Mengiong-Sg. Entulu Area, Kapit Division, Sarawak*’ (**Figure 2**) is also available.
- The FMU shall adhere to the mitigation measures as prescribed in both *General and Specific Terms and Conditions* of the approved EIA; including the approved EMP.

Figure 1: The EIA report for T/3372.

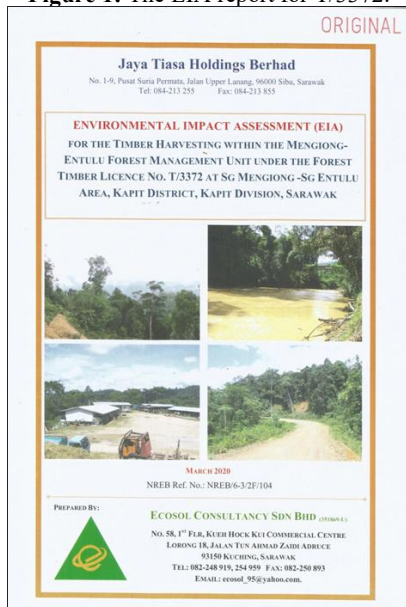
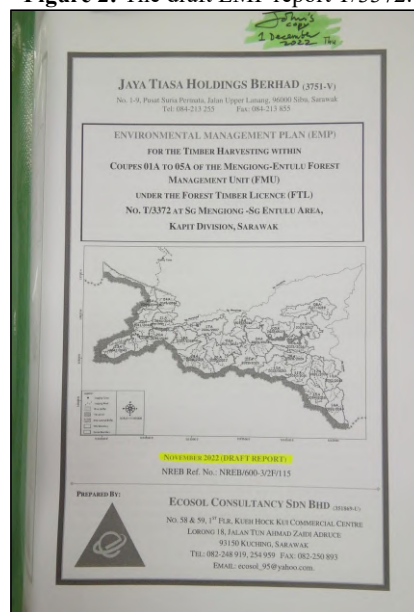


Figure 2: The draft EMP report T/3372.



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 and the report was produced in December 2017 (**Figure 3**). The presence of HCV attributes that shall be managed and monitored is being described in the ‘*Public Summary (for) Mengiong-Entulu FMU (T/3372): Summary of Identified High Conservation Value (HCV) Attributes*’.
- Baseline wildlife studies (*i.e.* Biodiversity) have also been initiated to identify the *Endangered, Rare and Threatened* (ERT) plants and animals; and the final report was produced in November 2017 (**Figure 4**).

Figure 3: The HCV report for T/3372.

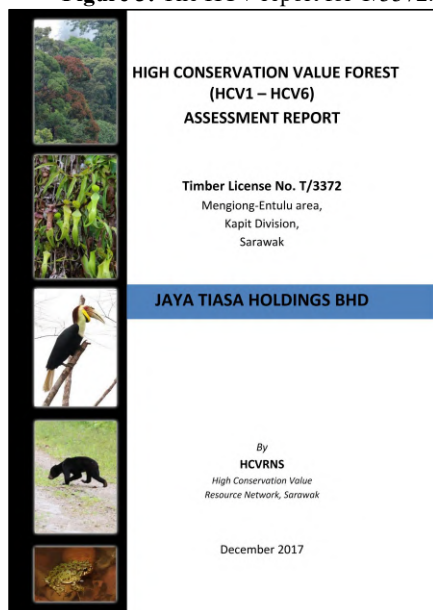
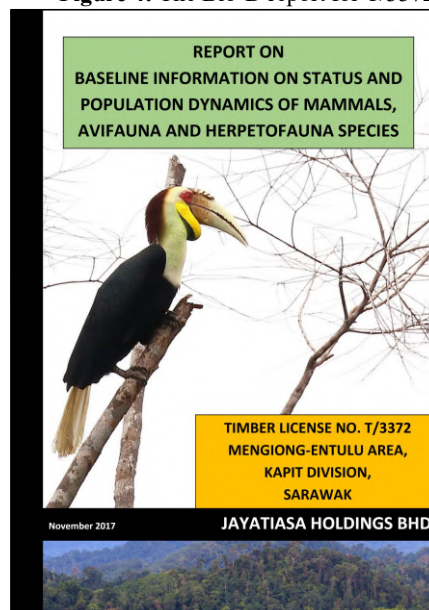


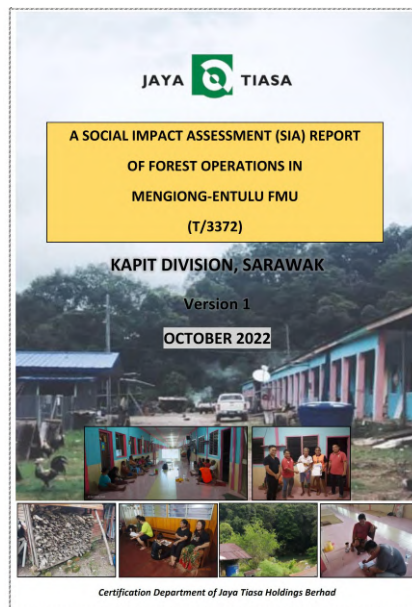
Figure 4: The Bio-D report for T/3372.



Well-being of Community and Forest Workers

- In October 2022, JTHB has produced a report entitled '*A Social Impact Assessment (SIA) Report of Forest Operations in Mengiong-Entulu FMU (T/3372)*' (**Figure 5**).

Figure 5: The SIA report for T/3372.



- Rh. Lawan is the only Iban community located outside of the FMU (located at the confluence of Sg. Ramong and Sg. Gaat (1° 38' 44.4" N; 113° 7' 58.6" E); approximately 17 Km from the northern boundary of the FMU). It consists of 23 doors with a population of 206 people.
- About 70% of the households surveyed were involved in subsistence farming, *i.e.* food and fruit crops cultivation, but none were involved in hill paddy cultivation. Other activities are hunting, fishing and collection of NTFPs.
- Significant sites such as SA area, burial ground and water catchment area are adjacently located to Rh. Lawan, but definitely outside of the FMU area. However, the hunting ground such as *Apan Entelit* is located inside Coupe 22A of the FMU.
- On 28th February 2023, FDS has conducted SFM-cum-FMC Awareness Briefing at Rh. Lawan (**Figure 6**); followed by the FMCLC Meeting on 1st March 2023 at Kapit Resident Office (**Figure 7**) – which was chaired by RFO Kapit (Encik Zaidi Mawek) and attended by representatives from the FMU, Rh. Lawan, FDS, SFC-Kapit, DoA-Kapit, WWF-Kuching, PD Bukit Mabong and L&S-Kapit. FDS is yet to distribute the FMCLC meeting minutes. The FMU, however, has produced its FMCLC meeting minutes (**Figure 8**).

Figure 6: The front page report on the SFM-cum-FMC Awareness Briefing at Rh. Lawan by FDS on 28th February 2023.



Figure 7: The combo pictures of FMCLC meeting on 1st March 2023 at Kapit Resident Office.

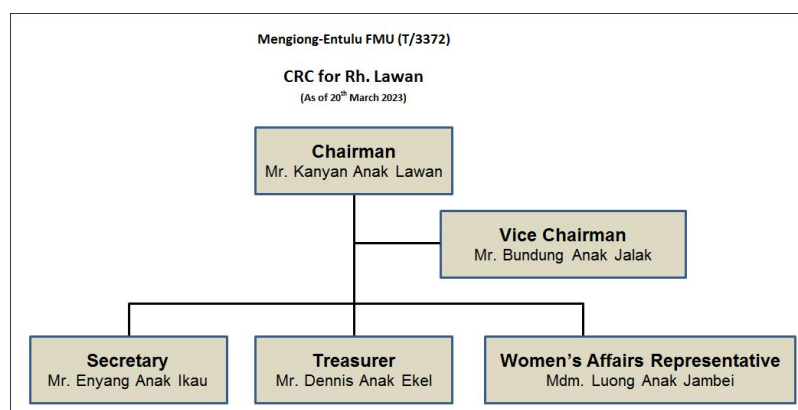


Figure 8: The FMU's front page report on the FMCLC Meeting on 1st March 2023 at Kapit Resident Office.



- Rh. Lawan community is one of the important stakeholders in the FMU area. Therefore, its Community Representative Committee (CRC) has been formed on 20th March 2023 (**Figure 9**), but, it is yet to be endorsed by FDS. Such formation is important to (i) foster good relationship between the FMU and the communities; and (ii) interconnect with the relevant government agencies.

Figure 9: The CRC members of Rh. Lawan – been formed on 20th March 2023.



- Mutual understanding and benefits between the FMU and the community of Rh. Lawan 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 the affected community of Rh. Lawan by adhering to Free, Prior and Informed Consent (FPIC) principle; Conflict Resolution Procedure (CRP) is also in place to address on any grievances (**Figure 10**), including ‘SOP on SIA plus Monitoring from Harvesting and Management Operations (SOP 2.3.5.2)’ (**Figure 11**) and ‘SOP on Conflict Resolution for Local Community (SOP 2.3.5.3)’ (**Figure 12**). Thus, social monitoring is to be conducted on annual basis, beginning from September/October 2023.

Figure 10: The ‘Conflict Resolution Process (CRP)’ flow chart at FMU level.

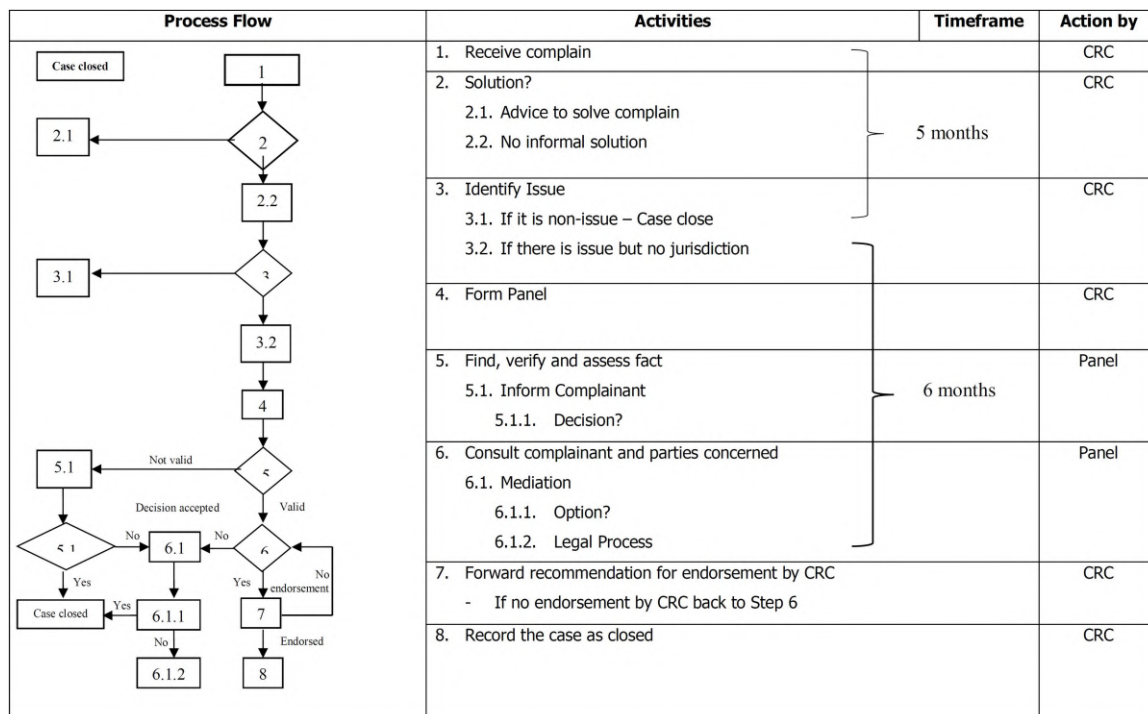


Figure 11: The ‘SOP on SIA plus Monitoring from Harvesting and Management Operations (SOP 2.3.5.2)’ at FMU level.

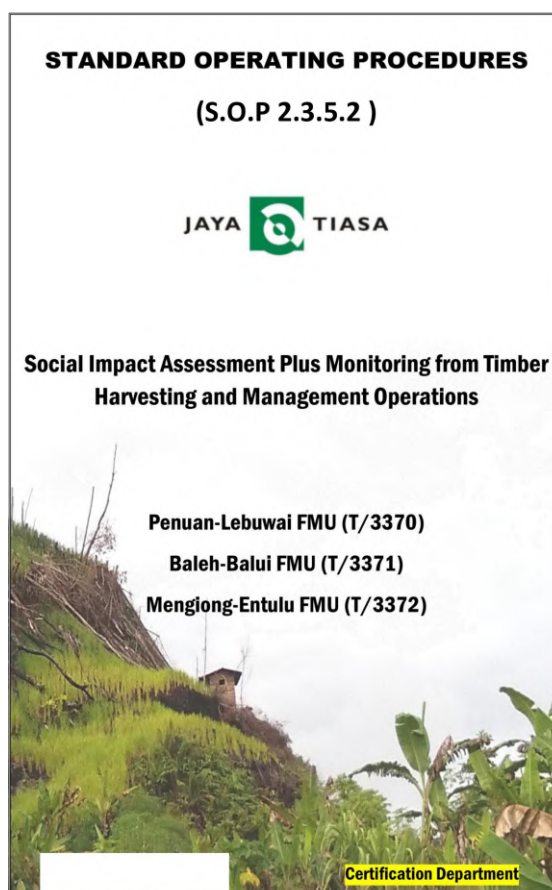
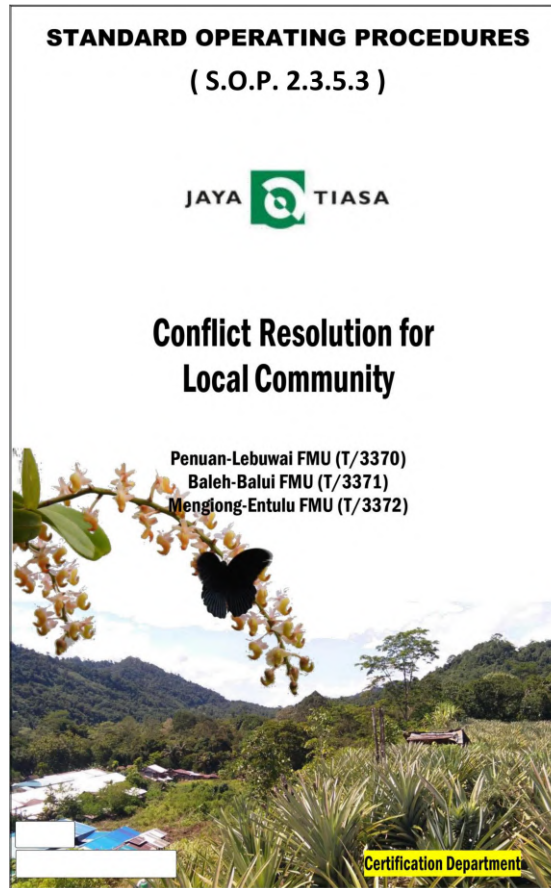


Figure 12: The ‘SOP on Conflict Resolution for Local Community (SOP 2.3.5.3)’ at FMU level.



- Besides, CRC, CRP, *SOP 2.3.5.2* and *SOP 2.3.5.3* are vital mechanisms to resolve any conflict, grievance and dispute over tenure claims and use rights between the parties involved – in this case, *e.g.* the FMU vs. community of Rh. Lawan; and if needed – to be mediated by the panel been appointed by FDS.
- On 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.

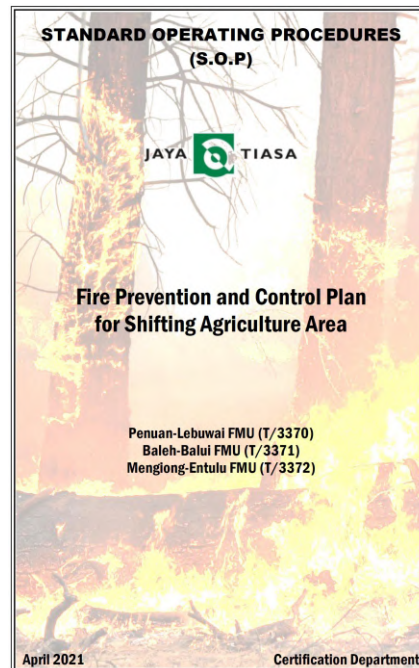
Monitoring

- 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 Area’ is also available (**Figure 13**).

Figure 13: The ‘SOP on Fire Prevention and Control Plan for SA’ at FMU level.



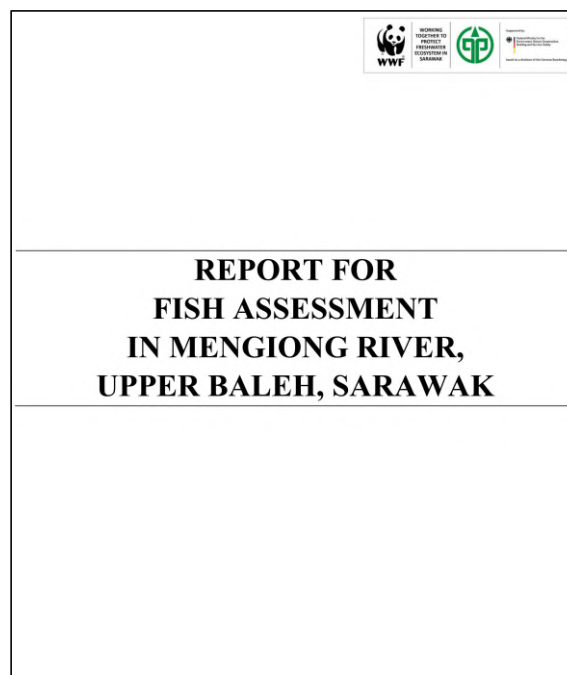
Budget Allocation to Implement FMC

- 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.
- In September 2019, WWF and Inland Fisheries Division of Department of Agriculture Sarawak (IFD-DoAS) have conducted a fish assessment study at Sg. Mengiong, of which the report was made available in May 2021 (**Figure 14**).

Figure 14: The front page of fish assessment report at Sg. Mengiong by WWF and IFD-DoAS.



Initiatives

- The FMU has undertaken Stage 1 Audit on 5th – 7th December 2022; and to commence the Stage 2 Audit on 27th – 31st March 2023 – against the *Malaysian Criteria and Indicators for Sustainable Forest Management* (MC&I SFM) certification program.

This document has been updated on 30th March 2023 (Thursday).