



**Merawa Sdn Bhd**  
A member of Samling Group of Companies

## **PUBLIC SUMMARY**

**for**

**Forest Management Plan**

**for**

**Tama Abu Forest Management Unit (T/0390)**

**for the period 2020 to 2029**

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Approved by:

James Ho Yam Kuan  
Chief Operating Officer

## Introduction

This is the public summary of the Forest Management Plan (FMP) written for the Tama Abu FMU. Tama Abu FMU is licenced under Forest Timber Licence (FTL) No. T/0390 issued to Merawa Sdn Bhd.

The Minister for Urban Development and Natural Resources has given an approval on 2<sup>nd</sup> January 2019 to the proposal of managing FTL No. T/0390 (Merawa Sdn. Bh.) and FTL No. T/9082 (S.I.F. Management Sdn. Bhd.) under a single Forest Management Unit (FMU).

The FMP is for the period from 2020 to 2029. There will be a mid-term review in the fifth year to allow any policy changes and developments to be incorporated.

## Management Objectives

- Forest planning and operations based on **multi-functional concept** which consider the different usage of forest resources and needs of stakeholders involved.
- Forest management practices to maintain or even enhance the forest ecosystem functions as to enable its self-renewal capacity through **Reduced Impact Logging (RIL), rehabilitation and silviculture treatment**.
- **Detailed Harvesting Plans** aimed at production of high quality timber at optimum efficiency, reduced environmental impacts and minimise wastage of resources.
- Integration of climate adaption and mitigation plans which has a positive impact on long-term **carbon sequestration** capacity of forest vegetation.
- Multi-stakeholders' consultation through the **Community Representative Committee (CRC), Forest Management Certification Liaison Committee (FMCLC)** and Forest Management Unit Representative **Committee (FMURC)** to address issues of common interests and to monitor the operational activities.
- **Continuous improvements** to forest management through certification, research, collaborative partnership, updating methodologies and standards.

## The Resource

The FMU is in the Miri Division, Sarawak. It lies about 199 km from Tuyut Log pond, is accessible from the main logging road which proceeds in a generally south-westerly direction to the Kelesa Camp. The Kelesa Camp serves as the administrative center for the FMU operations. [\(Right click here to access Map A-FMU location\)](#).

The total area is 182,998 hectares of which 27.4% (50,160 ha) is within the Tama Abu Protected Forest (PF); 18.0% (32,998 ha) is lies the Tapang Baiong Protected Forest (PF); 7.8% (14,274 ha) is Kelapang Conservation Area; 6.2% (11,321 ha) for border zone; and 40.6% (74,248 ha) inside State Land Forest. [\(Right click here to access Map B showing land status\)](#).

The elevation ranges from 305m to 2,037 m amsl. About 8.9% is classed as Terrain Class Terrain Class II, 59.3% as Terrain Class III (20°-35° slopes), 3.2% in Terrain Class IV (>35°) and 6.2% is Border

Zone. The Conservation area is covered 7.8% or 14,271 ha of the FMU. The remaining 14.6% is photogap.

The Kapit soils is dominant soil which covers approximately 57.36% of the FMU. It is followed by Merit (12.63%) which is having fine particle-size class (35-60% clay), Meluan (12.79%) classified under Skeletal Soil group, Conservation area (7.80%) and Border Zone (6.19%). The other soil series i.e. Tutoh, Bemang/Bekenu, Bemang/Dalan, Bemang/Dalan, Bekenu/Merit/Nyalau, Merit/Bemang and Silantek/Umor/Bareo appeared to be minor and together covering about 3.23% of the FMU.

The FMU has been zoned into: **Protection** (Terrain Class IV, Burnt Area, Water Catchment, HCVF Area, Major River, IHAS Project, Kerangas/MD1 Forest, Klapang Conservation Area and Buffer/Border Zone (1 KM/500 M), 62,252 Ha (34.02 %); **Community Use**, 20,566 Ha (11.24 %); and **Production**, 100,180 Ha (54.74 %). ([Right click here to access Map H-Forest zoning](#))

### Forest Management System

The production forest is managed on a polycyclic system based on prescribed cutting limits (Selective Felling System) with the next harvest, and all subsequent harvests, provided by the residual stems (potential crop trees) and continued recruitment from natural regeneration. Use of a Reduced Impact Logging system, with extraction by modified excavator wincher, minimizes damage to the residual stand. The FMU is divided into **25 coupes** of about **4,007 ha/coupe** with, nominally, one coupe harvested each year. The FORMIND growth simulation model used by Samling derives a sustainable annual cut (AAC) at an optimal cutting cycle based on the DBH cutting limits currently imposed by FDS of 45cm and 50 cm for non-dipterocarps and dipterocarps, respectively.

### Harvesting operation

The use of Reduced Impact Logging (RIL), with break out and extraction by modified excavator wincher, is intended to minimise damage to the residual stand and regeneration both of which will form the next or subsequent harvests. Only trees that have been tagged for harvesting and which are within 60m of the skid trail are felled. Sections of the tree number tags are attached to both ends of the log(s) which are then winched to the skid trail. From there they are skidded by tractor to the landing.

At the landing the logs are measured and the LPI and CB tags are affixed at both ends of every log together with the hammer imprint of the licensee's property mark. The details of logs extracted are recorded on the Daily Production Return form which must be submitted to the One-Stop Compliance Centre and Customer Service Centre of FDS.

The logs are then trucked to the official stumping area - Place of Royalty Measurement (PORM) - where the royalty assessment is undertaken by FDS. As part of the assessment the logs are hammer marked "FD" and tagged. A Removal Pass is then issued by FDS; this serves as a legal permit to transport the logs to the mill or export point. It is the last link in the FMU's chain-of-custody: standing tagged tree to the official log pond.

## Forest Resource Assessment

The Forest Resource Assessment (FRA) forms an essential component of forest management planning. All data collected from the SUs shall be entered into the FORMIND Growth and Yield Simulation Model to generate the preliminary Annual Allowable Cut (AAC). The preliminary AAC shall be included in the revised FMP.

Permanent Sample Plot (PSP) are established to record the growth and dynamics of the harvested forest with particular reference to the response of the residual stands to the opening of the forest canopy by harvesting. The re-measurement of the PSPs will be done at two (2) to five (5) years interval. The subsequent growth increment data from these plots will be used to calculate the future AAC.

## Allowable Annual Cut

From the net production area of 100,180 ha in the FMU with an average of 4,007 ha per Annual Coupe, the resulting preliminary Annual Allowable Cut (AAC) is **48,246.68 m<sup>3</sup>/year**.

Yield control is primarily by area with one coupe harvested each year with the actual annual production not to exceed the AAC.

## Provisions for monitoring forest growth

There are eight (8) Permanent Sample Plots (PSPs) were established in the FMU. The tree growth in these PSPs is recorded at regular intervals at two (2) to five (5) years interval. The subsequent growth increment data from these plots will be used to calculate the future AAC. The final number of PSPs to be established will depend on the variability (coefficient of variance) of the FRA sampling units.

## Environmental Safeguards

The **first** Environmental Impact Assessment (EIA) Report for the re-entry harvest was approved by Natural Resources and Environment Board (NREB) for Merawa Sdn. Bhd. and SIF Management Sdn. Bhd. on 18<sup>th</sup> March 2013 and 28<sup>th</sup> August 2012 respectively. Due to the changes in the Licensed Area, the draft of **new** EIA Reports currently still under review by other government agencies including higher learning education which is University Malaysia Sarawak.

The FMU has in place the **Waste Management Policy** which is in compliance with the Environmental Quality (Scheduled Wastes) Regulations 2005 and has developed a **Waste Management Plan for Scheduled & Non-scheduled Waste**.

**Fire Management Plan** is an essential component for the prevention, suppression and management of fire within forests and adjacent lands. Fire management plan must be part of an overall land-use management plan, e.g. forestry. An effective fire management plan is highly dependent upon broad-based support from all stakeholders.

**Climate change** mitigation programs (e.g. REDD+) are emerging that can increase the stock of carbon in forests; and that can help the costs of actions (from Carbon Credits) to reduce GHG emissions due to deforestation and forest degradation. Forest management shall assess the cost-

effectiveness of climate change adaption and mitigation options and identify the most feasible based on the available technical capacity and supportive policy.

### **Forest Landscape Restoration Area**

The FLR program is promoted as a greening process by planting indigenous tree species in the degraded landscapes across Sarawak. The progress of **forest landscape restoration** as at 1<sup>st</sup> Quarter 2022 is about 0.7 ha have been planted with the indigenous species.

### **Collaboration on Research**

On 26<sup>th</sup> September 2022, the Samling Group has signed a Memorandum of Understanding (MOU) with UPM Sarawak Bintulu Campus on collaborative research projects related to forest management certification.

### **Wildlife**

“A Master Plan for Wild Life in Sarawak” was approved by the Cabinet as official policy in January 1997. The Master Plan dealt with the immediate issue of stopping over-exploitation by hunting and the provision of more natural habitats in which wildlife could continue to live. The principal ordinance relevant to the protection, management and conservation of wildlife in Sarawak is the Wild Life Protection Ordinance 1998. Additional measures are the responsibility of the FMU holder, in line with SFC Circular No. 2/2021 dated 21 April 2021, toolbox talks given to staff and workers are designed to increase the level of awareness of the importance of all aspects of wildlife conservation. Posters are displayed at strategic location as visual aids for awareness programs.

### **Rainfall**

The regional rainfall data (2008-2021) are from Bario (DID Station No. 3754007) and Lio Matu (DID Station No. 3152011).

The lowest mean monthly rainfall in the regions are in July at 64 at Bario mm. The highest annual total rainfall was 4,220 mm recorded at Lio Matu in 2017 whereas the lowest annual total rainfall is 1,796 mm recorded at Bario in 2014. Overall, the wettest year in the region was in 2017 whereas the driest year was in 2014.

### **High Conservation Value Areas**

The management of High Conservation Value (HCV) areas must comply with relevant Forest Rules and Regulations, and requirements of forest management certification. The Malaysian National Interpretation for the identification of HCV (Proforest 2018) has defined six (6) HCVs as HCV1 (Species Diversity) - Present, HCV 2 (Landscape-Level Ecosystems and Mosaics) - Present, HCV 3 (Ecosystems and Habitats) - Present, HCV 4 (Ecosystems Services) - Present, except for HCV 4.3 (Barriers to Destructive Fire), HCV 5 (Community Needs) - Present and HCV 6 (Cultural Values) - Present. The High Conservation Value (HCV) assessment is conducted by Envisar Sdn Bhd and is still in progress. The findings of the report shall be included in the updated revised FMP.

## Social Impact Assessment

In term of continual engagement process, priority would be given for those villages resided within the FMU without compromising the interests of other villages which are located adjacent and/or outside the FMU. The intention is to prevent any conflict arise with the neighbouring forest timber licences.

The Social Impact Assessment (SIA) for Tama Abu FMU was conducted from 24<sup>th</sup> to 28<sup>th</sup> June 2019 and 21<sup>st</sup> to 30<sup>th</sup> August 2019 by UPM Bintulu Sarawak Campus. A total of 13 villages were covered in the study of which 11 villages within and 2 villages adjacent to the FMU. Three settlements are occupied by the Penan, one by the Sa'ban, seven villages by the Kelabit communities and two other villages shared by more than one community which are Long Banga (Kenyah, Sa'ban and Iban) and Pa Mada (Kelabit and Kenyah).

During the study, it was found that Long Metapa and Long Sekuan were no longer a settlement area and Long Balong has been renamed to Long Puak by the community. Most of the communities are Christians, either Roman Catholic (RC) or Borneo Evangelical Mission (BEM) / *Sidang Injil Borneo (SIB)*. The list of identified/affected local communities was listed in table below and shown on Map F. ([Right click here to access Map F-Location of settlements](#)).

No	Name of Village	Head	Ethnicity
<b><i>Within</i></b>			
1	Long Puak@Balong	Anthony Lasau Singan	Sa'ban
2	Long Lamai	Wilson Bian	Penan
3	Long Banga	Ranly Gau	Kenyah/Sa'ban/Iban
4	Long Peluan	Lut Tuloi	Kelabit
5	Long Beruang	Kule Gar	Penan
6	Pa Dallih	Anderias Tapan	Kelabit
7	Pa Mada	Peter Aran	Kelabit/Kenyah
8	Batu Patong	Jeffery Malang	Kelabit
9	Ramudu	Mathew Lungan	Kelabit
10	Pa' Umur	Pasang Ibu	Kelabit
11	Ba Lai	Lejah Kader	Penan
<b><i>Adjacent</i></b>			
12	Kg Baru Bario	Dickson Natan	Kelabit
13	Pa Lungan	Heyward Inu Pu'in	Kelabit

Social impact assessment concluded that:

- FMU operations have provide positive impact to the local communities in term of road accessibility.
- FMU has provided job opportunity to the local communities and with the road accessibly it increases the awareness among the community regarding the importance of providing education to their children.
- Co-operation and understanding between the FMU, government agencies and local communities is needed to minimise the negative impact and increases the benefits from the establishment of FMU.

The Conflict Resolution Guidelines for SFM are used for resolution of any conflict that might arise between a community and the FMU management that cannot be resolved informally at FMU camp level. Conflict Resolution Guidelines is available @:

<https://www.samling.com/sites/default/files/Forest%20Management%20Certification%20Procedure%20for%20Conflict%20Resolution%20-%20English%20Version.pdf>

### **Community Liaison and Development**

The Community Representative Committee (CRC) and Forest Management Certification Liaison Committee (FMCLC) serve as platforms for achieving a balance of the economic, environmental and social interests. In addition, the committee establishment is also to foster good relationship and facilitate communication between the local communities, the FMU and government agencies. The CRC and FMCLC will provides a forum where discussion can take place between stakeholders to discuss matters of common interests. However, the formation of CRC is at the discretion of the community. The formation of CRC is still inprogress so at the moment the mechanism to resolve disputes will have relied on “Complaint Form/Borang Aduan” only. The “Complaint Form/Borang Aduan” is available @ <https://samling.com/node/207>.

Assistance for the community development project might come from FDS, the FMU holder and any agency (whether government or non-government) able to provide know-how and/or funds that are not otherwise available to the community.

### **Health, Safety and Environment**

The FMU operates under Samling’s Health, Safety and Environment Policy and follows the Safe Practice Guidelines. In addition to their work instructions and toolbox talks, the workers are either sent for training courses, or trained within the FMU in the prescribed activities (directional felling, the proper usage of chainsaws and safety aspects, log extraction and log loading) by designated trainers. This is periodically reviewed. There is in-house training of occupational safety and health practices for the workers. A Safety and Health Committee ensures compliance with the Occupational Safety and Health Act 1994, and the relevant legislative regulations and guidelines that are applicable to the respective workplaces.

### **Monitoring**

Monitoring is required to ensure that the environmental protection measures are implemented and that they are effective and comply with mitigation requirements. The FMU has formulated an Environmental Policy (EP) in compliance with the PEFC-endorsed Malaysian Timber Certification Scheme (MTCS) for well-managed natural forests.

As mentioned under the section **Provisions for monitoring forest growth** a system of permanent sample plots (PSPs) will, after some years, provide data that allow monitoring of the composition and observed changes in the flora. The PSP data will also provide for the monitoring of forest growth and dynamics in terms of growth rates, recruitment, regeneration and general condition of the forest.

Wildlife monitoring is by observation and recording of sightings. This includes line transects, night-spotting and camera trapping. Wildlife rangers were appointed by SFC to assist the government

agencies in implementing the Master Plan. The wildlife rangers also act as facilitators to promote awareness on the need for wildlife protection in their respective areas of responsibility.

The Tama Abu FMU has only recently been established. This means that the monitoring of some of the attributes as required by the MC&I is also a new feature in the FMU's management portfolio. In this regard the following summary might usefully be noted:

- Yield of forest products (logs) harvested is monitored through the FMU's production records for royalty assessment held in the camp office.
- Growth rates, regeneration and condition of the forest together with the composition and change of the flora are monitored through the establishment of permanent sample plots (PSPs). The environmental impact of harvesting on flora will also be captured by PSP data and post-harvest assessment.
- Data from the HCV assessment will be used to assist in monitoring fauna in conjunction with *ad hoc* records of observations by FMU staff. As part of their duties they will be responsible for toolbox talks that will develop staff awareness and competence to assist in observing and recording.
- The HCV assessment (HCV5) suggested varying degrees of dependence by local community on some attributes of the FMU. This dependence and any changes will need to be monitored.
- To protect and demarcate an agreeable boundary of HCV6.
- Costs will be monitored by budgetary controls in which productivity and the efficiency of forest management will of necessity also feature.

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