



Suasana Pertiwi Sdn Bhd
A member of Samling Group of Companies

PUBLIC SUMMARY

of the

Forest Management Plan

for

Bah Sama Forest Management Unit

for the period 2022 to 2031

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Approved by:

James Ho Yam Kuan
Chief Operating Officer

November 2023

Introduction

The Bah Sama Forest Management Unit (FMU) is licenced under Forest Timber Licence (FTL) No. T/3670 which has a gross area of 35,379 ha comprise of land covers approximately **34,346 ha** (to be called **Area A**) and the smaller site (to be called **Area B**), encompassing only **1,033 ha**.

The FTL was initially issued to Sertama Sdn. Bhd. under FTL No. T/3173 on 16 April 1987 which has expired on 14 April 1997. It was renewed to 15 July 2012 and renewed again to 15 April 2017 with further extension to 15 January 2018. Upon expiry, a restructuring exercise was carried out, the number of this FTL had been changed to FTL No. T/3670 and was issued to Suasana Pertiwi Sdn. Bhd. Syarikat Samling Timber Sdn Bhd is the contractor and the FMU Manager for FTL No. T/3670.

The FMP is for the period from 2023 to 2032. There will be a mid-term review in the fifth year to allow any policy changes and developments to be incorporated.

Forest Management Plan 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 Headmen** or **Jawatankuasa Keselamatan Kampung (JKKK), 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 Kapit Division, Sarawak. It lies about 104 km from KM16 off the Bintulu-Sibu Road and runs in a southerly going through the Samarakan Nursery of Sarawak Planted Forest and Lana Camp A Logpond until reaching the Lana Camp B. The Lana Camp B serves as the administrative center for the FMU operations. ([Right click here to access Map 1-FMU location](#)).

The total area is 35,379 hectares of which 14.3% (5,064 ha) is within the Bah Sam Protected Forest and 36.3% (12,838 ha) lies within Bah Sam Protected Forest (1st Extension). The remaining 49.4% (17,477 ha) is State land. ([Right click here to access Map 2-Legal Status](#)).

The elevation ranges from 90m to 610m amsl. About 9.4% is classed as Terrain Class I, 31.5% as Terrain Class II, 58.8% as Terrain Class III (20°-35° slopes) and a 0.3% in Terrain Class IV (>35°).

The Kapit/Merit/Bekenu soils is dominant soil which covers approximately 68.5% of the FMU. It is followed by Merit/Bekenu/Kapit (25.9%) which is mostly associated with rolling terrain. The other soil series i.e. Merit/Seduau/Bemang, Merit/Lubai/Buso, Nyalau/Bekenu/Bako, Merit/Tukau//Buso, Kapit/Tutoh/Bekenu, Bijat/Seduau, Bemang and Seduau/Merit appeared to be minor and together covering about 5.6 % of the FMU.

The FMU has been zoned into: **Protection** (MD1 & MDR1 forests, Terrain Class IV, Water Catchment, Buffer zone and Water Intake Point area), 6,718 Ha (18.99 %); **Community**, 4,483 Ha (12.67 %); and **Production**, 24,178 Ha (68.34 %). ([Right click here to access Map 3-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 excavator-based log fisher, minimises damage to the residual stand. The FMU is divided into 10 coupes of about 2,418 Ha 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 FRA results are based on data collected from 23 Sampling Units (SUs) from out of a total 109 SUs. On average, 1,211.68 trees/ha were recorded in the 23 SUs, with a standard deviation of 345.25 trees/ha. The average number of Potential Crop Trees (PCTs) is 22.19 trees/ha, with the standard deviation of 11.99 trees/ha. The average DBH, average CBH, and the total height of trees assessed were 12.88 m³/ha, 5.85 m, and 8.61 m. The values are quite low as there are high ratio of small trees to mature trees in natural forest stands. The mean stand basal area of living trees is 24.25 m²/ha at 5.88 m²/ha standard deviation, this corresponds to a coefficient of variation of 24.26% throughout all SUs. The total volume average is 173.703 m³/ha, where almost half of this volume (78.084 m³/ha) belongs to Dipterocarp species but with a very high standard deviation at 42.149 m²/ha (45.12%). 74% of the trees assessed in all 23 SUs consists of Non-Commercial tree species, indicating that commercial species had been logged heavily in the past harvesting operations.

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 24,178 ha in the FMU with an average of 2,418 ha per Annual Coupe at **16.36 m³/ha**, the resulting preliminary Annual Allowable Cut (AAC) is **15,826 m³/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 ten (10) 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 Environmental Impact Assessment (EIA) Report (November 2018) was approved by Natural Resources and Environment Board (NREB) on 1 February 2019. The Environmental Management Plan (EMP) was approved by NREB on 13 February 2023.

The EIA and EMP report includes the study of environmental impact considerations, the conservation of the natural forest, water quality, waste disposal, use of pesticides and biological agents, mitigation measures for road construction and maintenance, tree felling and log skidding by tractors, environmental quality control and non-organic waste disposal, silvicultural management, forest protection/fire prevention, wildlife protection, protection of scenic landscapes and those with recreational potential, and safety and health of workers.

All rivers and streams that flow year-round must have stream buffer reserve (SBR) established the width of which is determined according to NREB specification.

Quarterly Environmental Monitoring Reports (EMRs) are undertaken by external consultants and have been submitted to the NREB regularly following approval of the EIA. The main focus of the Environmental Monitoring Report (EMR) is on water quality and any damage due to the harvesting operations. The monitoring works for damages due to harvesting operations, as provided for under the Forest Ordinance, will continue for at least a year after the blocks are closed.

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.

Collaboration on Research

On 26th 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 (2012-2022) are from Punan Bah (DID Station No. 2333001), Nanga Telawan (DID Station No. 2435001) and Belaga (DID Station No. 2737103/2737003).

The mean monthly rainfall is the highest of 169 mm at Punan Bah in January to the lowest of 89 mm also at Punan Bah in July. The wettest months seem to fall in November until January in the

following year and the driest month seem to be happened in July. The highest annual total rainfall was 5,169 mm recorded at Punan Bah in 2020 whereas the lowest annual total rainfall is 3,202 mm recorded at Belaga in 2019. Overall, the wettest year in the region was in 2020 whereas the driest year was in 2012.

High Conservation Value Areas

The HCVF assessment was carried out in phases and the summary of HCV findings is shown below.

HCV	Findings	Management Recommendations	Monitoring Recommendations
1.2 Threatened and Endangered Species	Present Fauna: A total of 14 species of fauna consisting of 9 mammals, 2 birds and 1 insect were recorded throughout the assessment period.	Fauna: 1. The DF Circular 6/99 and SFC Circular 2/2021 shall be strictly enforced by the camp management. 2. Wildlife Management and Protection Policy should be in place. 3. The Conservation Unit to monitor and manage activity and issue related to wildlife. 4. A gate at the entry point should be in place and manned by a security guard for monitoring the movement in-and-out. 5. Community Education, Participation and Awareness (CEPA) program shall be conducted by the Honorary Wildlife Ranger. 6. The FMU should consider to maintain the existing ecological connectivity and to exclude it from logging activities.	Fauna: 1. Patrolling should be made periodically and recorded. 2. The list of wildlife found in the FMU is to be kept and frequently updated. 3. Wherever there is any new sighting of wildlife (especially RTE species), the area should be properly marked using GPS, mapped and kept. 4. Record of entry by outsiders and incidents (i.e. illegal hunting) should be kept and extended to the relevant agency. 5. Wildlife caught or killed by hunters should be sent to the relevant agency as part of wildlife monitoring mechanism. 6. Any CEPA activity conducted should be recorded and the report is kept for reference.
1.3 Endemism	Present Fauna: A total of three (3) endemic fauna species consisting of one (2) mammal and one (1) bird were recorded.	Fauna: 1. Endemic species live in habitats restricted to a particular area and as such, it is highly recommended for their protection. 2. Camp workers should be trained to identify the endemic species including awareness on wildlife conservation and protection through training program such as Honorary Wildlife Ranger (HWR) and CEPA. 3. The habitats, salt licks and feeding areas especially the fruit trees shall be protected.	Fauna: 1. Long-term monitoring of the endemic species and the data collected is updated accordingly for reference. 2. Important areas used by the endemic species (i.e. saltlicks, wallow, burrow and etc.) should be recorded, mapped and updated accordingly. 3. Any related training or CEPA program should be recorded and kept.

HCV	Findings	Management Recommendations	Monitoring Recommendations
<p>1.4 Critical Temporal Use (CTU)</p>	<p>Present</p> <p>1. Saltlick: Thirteen (13) saltlicks are found located inside communities area and another two (2) within the operable area. (Right click here to access Map HCV 1.4)</p>	<ol style="list-style-type: none"> 1. CTU areas within the Bah Sama FMU should be inventoried, recorded and mapped. 2. CTU sites should be managed and monitored according to the Guidelines for Fauna Conservation and Ecosystem Management for SFM and Guidelines for Monitoring of HCV. 3. A total ban of hunting activity within the buffer zone and inside the CTU sites. 4. A buffer zone of 100 m is to be established around CTU sites. 	<ol style="list-style-type: none"> 1. Record of the demarcated, marked and mapped CTUs should be kept and updated accordingly; 2. Regular patrol to monitor and check the CTUs should be conducted and its status reported. The report should be kept as a record; 3. The use of camera trapping for monitoring and checking the saltlick areas is to be carried out. Records of camera trapping activities and wildlife database should be kept for reference; 4. Any activities around the saltlicks area should be recorded and record to be updated accordingly.
<p>2.0 Landscape-level Forest</p>	<p>Present:</p> <p>The FMU is not located within the HoB Corridor. However, a network of streams with pristine riverine forest reserve serves as a viable wildlife corridor. Furthermore, with the practice of Reduced Impact Logging (RIL) System, the Stream Bank Reserve (SBR) will ensure the riverine forest from not being encroached and damaged. It is located adjacent to Hose Mountains National Park and Batu Laga National Park. Both areas have been considered an important area for wildlife corridor whereby Hose Mountains National Park was proposed to be linked to Betung Kerihun in Kalimantan (Brodie et al. 2015).</p>	<ol style="list-style-type: none"> 1. The buffer zone of 50 m along major river, Btg. Rajang and buffer zone of 20 - 40 m along its main tributaries shall be demarcated and maintained. 2. Any conservation and/or research area, Terrain IV areas and water catchments are to be zoned out for protection. 3. A buffer zone of 100 m wide is to be established around Critical Temporal Use (CTU) sites (HCV 1.4) and its protection is enforced. 	<ol style="list-style-type: none"> 1. Periodic compliance assessment of the various aspects of the forest operations is required to ensure the management prescriptions are followed accordingly. 2. Of significance is the RIL Compliance Assessment which is done to ensure the forest operations are in compliance with the Guidelines for RIL Part 1 & 2 during pre-harvesting and post-harvesting. 3. Regular patrolling of the FMU is conducted to ensure that there is no authorised logging in the protection areas, international boundary zone and closed block/coupe.

HCV	Findings	Management Recommendations	Monitoring Recommendations
	<p>This and together with other Totally Protected Areas in the vicinity such as Pelagus National Park and Bukit Mersing National Park forms a forest landscape of wildlife corridors throughout the area.</p> <p>(Right click here to access Map HCV 2)</p>		
<p>3.0 Ecosystems</p>	<p>Present</p> <p>The Hill mixed-dipterocarp forest, where most log harvesting activity is carried out is considered least priority habitats in the National Conservation Strategy (Priority Class 3). The same priority was given to riparian forest surrounding Batang Rajang, which flows along the southern part of the license boundary; although precautionary approach would indicate us to assume the riparian forest contain ensurai which is considered Priority Class 2.</p>	<ol style="list-style-type: none"> 1. There should be demarcation of protected areas including the Class IV terrain and large stream bank buffers. 2. Protection of the threatened ecosystems and protected areas is to be enforced. 3. Responsible operation of harvesting is done through RIL practices. 	<ol style="list-style-type: none"> 1. The land-use maps are to be updated by acquiring the latest satellite imageries which can show the changes of the forests. 2. There should be pre-harvesting and post-harvesting inspection of the operation areas to ensure compliance.
<p>4.1 Watershed Protection</p>	<p>Present</p> <p>The main natural drainage network is formed by Btg. Rajang and its major tributaries such as Bah, Sg. Pemdau, Sg. Sama, Sg. Pawah, Sg. Dungan, Sg. Puan and Sg. Merit.</p> <p>Water catchment areas are demarcated on the map for the communities inside the FMU</p>	<ol style="list-style-type: none"> 1. Identification and marking of water catchments for the local communities is to be carried out jointly by the FMU and the community leaders. 2. The identification and marking of Class IV terrain is to be clearly depicted on the map at the FMU level. 3. Zoning of water catchments and Class IV terrain is to be clearly depicted in the GP with protection of these areas being enforced. 	<p>Inspection during pre-felling and post-felling is required to be carried out to ensure protection of the identified HCV 4.1.</p>

HCV	Findings	Management Recommendations	Monitoring Recommendations												
	<p>The Belaga Waterworks is sourcing raw water from Btg.Belaga with water intake point (WIP) near its confluence with Btg. Rajang. Although the FMU is outside the Belaga public water supply catchment (WSC), an area of 231 ha is marked as protection area for the Belaga WSC. According to Sarawak Water Ordinance 1994, no logging activities shall be permitted within 8km radius of water intake point. (Right click here to access Map HCV 4.1)</p>														
<p>4.2 Erosion Control</p>	<p>Almost half of the FMU is under Terrain Classes I and II. The remaining areas of the FMU have very steeply dissected terrain with slopes exceeding 35° which are classified as Terrain Class IV. Such areas are considered too steep for harvesting operation and they are preserved as protected areas for erosion control.</p> <p>Terrain IV Terrain IV are land area of slope exceeding 35°.These areas are prone to erosion and landslide. No conventional and ground harvesting are permitted in these areas.</p> <p>Riparian forests Forest area surrounding water</p>	<p>1. The Guidelines for Rivers and River Reserves (DID, 2001) as shown below is to be adopted.</p> <table border="1" data-bbox="671 1200 994 1435"> <thead> <tr> <th>River Width (m)</th> <th>Buffer Width (m)</th> </tr> </thead> <tbody> <tr> <td>>40</td> <td>50</td> </tr> <tr> <td>20-40</td> <td>40</td> </tr> <tr> <td>10-20</td> <td>20</td> </tr> <tr> <td>5-10</td> <td>10</td> </tr> <tr> <td><5</td> <td>5</td> </tr> </tbody> </table> <p>2. Zoning of Class IV terrain is to be carried out and clearly depicted on map. The protection of this area is to be enforced as the Class IV terrain is prone to soil erosion</p>	River Width (m)	Buffer Width (m)	>40	50	20-40	40	10-20	20	5-10	10	<5	5	<p>1. Pre-felling and post-felling inspection is carried out to ensure compliance with the protection status of identified HCV 4.2.</p> <p>2. After harvesting, water analysis is conducted to test the water quality which can determine the efficiency of mitigation measures through establishment of stream-bank buffers and protection of erosion prone area.</p>
River Width (m)	Buffer Width (m)														
>40	50														
20-40	40														
10-20	20														
5-10	10														
<5	5														

HCV	Findings	Management Recommendations	Monitoring Recommendations
	<p>bodies are to be protected to prevent riverbank erosion. This can be done by establishing river buffers. This forest area also serves as filters trapping silt from flowing into the river. Furthermore, network of river buffers can serve as wildlife corridor aiding wildlife movement across the FMU. (Right click here to access Map HCV 4.2)</p>		
<p>4.3 Barriers to Destructive Fire</p>	<p>There is no incident of any forest fire in the FMU so far. However, precaution is necessary during prolonged drought season for fire-prone areas such as secondary forest or <i>temuda</i>. The presence of the hill MDF and riparian forest plus the river network act as the natural barriers to the spread of forest fire. Forest Fire Management Plan should also be adopted. (Right click here to access Map HCV 5)</p>	<p>The continual maintenance and protection of the riparian buffer zones, the Class IV terrain and other undisturbed natural forest is essential in order to maintain these natural fire break.</p>	<p>An Emergency Fire Response Team should be set up which can prevent spread of any fire from any source within the FMU. This is also a statutory requirement by the Occupational Safety and Health Act 1994.</p>
<p>5.0 Basic Need of Local Communities</p>	<p>Water resource is a crucial element from the forests which meets their basic need in terms of providing clean water for drinking, cooking, bathing and sanitation. The local communities have part of the forest areas demarcated as their water catchment</p>	<p>1. Any forest area (i.e. Communal Forest Reserve) regularly used by the local communities to gather forest produces, apart from shifting agriculture areas, shall be identified and noted by the FMU management together with the local representative of the affected villages. Thus, the FMU management shall consider the needs of local communities to utilize the</p>	<p>1. Record shall be kept of illegal entry and encroachment by outsiders into the Communal Forest Reserve and the report shall be extended to the relevant agency for action. 2. Monitoring and maintenance of the water catchment areas are carried out periodically by Jawatankuasa Keselamatan Kampung (JKKK) members from every village to ensure</p>

HCV	Findings	Management Recommendations	Monitoring Recommendations
	<p>water for their water supply (Map HCV 5: Basic Needs of Local Communities).</p> <p>The nearby forests and the surrounding areas are still important in providing the basic needs such as food (animals and plants) and materials for house building and making handicrafts. Most of the villagers go hunting and gathering jungle produce from the forests. The most commonly sought wildlife species are the wild boar (<i>Sus barbatus</i>), barking deer (<i>Muntiacus sp.</i>) and mouse deer (<i>Tragulus sp.</i>).</p> <p>Rattan is an important non-timber forest produce which is for making handicrafts such as weaved baskets or carriers, floor mats and other decorative items like bracelets and bangles.</p>	<p>areas which have traditionally sustain their dependency on forest resources.</p> <p>2. Any water catchment for the gravity-feed water supply system shall be demarcated and protected.</p>	<p>the water quality is well maintained.</p>
<p>6.0 Cultural Identity of Local Communities</p>	<p>HCV6 is present in forms of several burial grounds – both old and new - within Bah Sama FMU. Most of these burial sites are located within their shifting agriculture area and nearby their settlements. (Right click here to access Map HCV 6)</p>	<p>Mapping and protection of the burial sites by demarcation of a 50 m buffer zone shall be conducted and deliberated through consultation with the local communities</p>	<p>Regular monitoring by the JKKK to ensure no encroachment or disturbance by any outsiders or FMU workers.</p>

Social Impact Assessment

A Social Impact Assessment (**SIA**) was conducted on 16th June to 21st June 2022 and 9th to 11th September 2022 by Samling’s Forest Management Certification Unit. A total of 24 villages were covered in the study of which 12 villages within and 12 villages adjacent to the FMU.

Six settlements are occupied by the Punan and Beketan, four by the Iban, three villages by the Kayan communities, two settlements by Sekapan and one each village by the Tanjong, Sihan and Kenyah Badeng. The economic activities range from farming, livestock, fishing and forest-related activities such as hunting and collect jungle produce. Others include employment in the private sector or working as manual labourers on contract or daily paid basis. ([Right click here to access Location of settlement](#)).

No.	Name	Ethnicity	TK
<u>Within</u>			
1.	Punan Bah	Punan	Jeffery Jayang
2.	Rh. Lat Tuyang	Iban	Asing Anak Lat
3.	Rh. Stephen Jelawing (Punan Biau B)	Punan	Stephen Jelawing
4.	Rh. Kulleh Siluk (Punan Biau A)	Punan	Kulleh Siluk
5.	Rh. Dari Jelawing, Nanga Pidan	Punan	Dari Jelawing
6.	Punan Sama	Punan	Ladang Keluka
7.	Rh. Tanjong, Long Pawah	Tanjong	Micheal Nyaleng
8.	Uma Tevok, Long Buyun	Kayan	Hubat Mering
9.	Uma Sihan, Sg. Dangan	Sihan	Main Magui
10.	Rh. Guyang	Iban	Welfred Guyang Anak Sampai
11.	Rh. Entili	Iban	Janggie Anak Bagau (Wakil KK)
12.	Rh Sampai (Laja)	Iban	Sampai
<u>Adjacent</u>			
1.	Punan Data Ba	Punan	Medani Tukang
2.	Uma Badeng, Long Dungan	Kenyah Badeng	Awi Lahang
3.	Rh. Sekapan Panjang,	Sekapan	Among Matu
4.	Rh. Sekapan Piit	Sekapan	Lejau Sirek
5.	Long Amo, Belaga	Kayan	Lato Juman
6.	Uma Aging, Belaga	Kayan	Aging Bato
7.	Rh. Seking	Beketan	Seking Anak Nalo
8.	Rh. Ulan	Beketan	Ulan
9.	Rh. Lita	Beketan	Lita
10.	Rh. Tinso	Beketan	Tinso
11.	Rh. Pius	Beketan	Pius
12.	Rh. Spido	Beketan	Stephen Spido

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.

Community Liaison and Development

The Jawatankuasa Keselamatan Kampung (JKKK) 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 JKKK and FMCLC will provides a forum where discussion can take place between stakeholders to discuss matters of common interests. The “Complaint Form/Borang Aduan” is available @ <https://samling.com/samling-complaintrequest-form>.

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://samling.com/sites/default/files/2023-08/FLOWCHART_13072022-new2-1_0.jpg

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 (currently suspended as the number of workers and staff is well below the threshold required for this committee) ensures compliance with the Occupational Safety and Health Act 1994, and the relevant legislative regulations and guidelines that are applicable to the respective work places.

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.

Detail of PSPs of FMU are as below: ([Right click here to access Map 4 - PSP](#))

NO.	PSP_ID	LONGITUDE	LATITUDE	NOTE - Date of Established
1	1	113°40'53.47" E	2°40'49.49" N	24.09.2022
2	3	113°40'04.76" E	2°38'20.35" N	10.09.2022
3	5	113°37'36.15" E	2°34'13.81" N	4.10.2022
4	7	113°36'01.5" E	2°32'38.6" N	16.05.2022
5	8	113°36'50.0" E	2°31'50.1" N	15.06.2022
6	9	113°34'24.11" E	2°31'49.31" N	9.07.2022
7	13	113°34'20.77" E	2°30'11.37" N	-
8	15	113°25'28.80" E	2°26'55.61" N	-
9	17	113°23'51.48" E	2°31'49.31" N	-
10	19	113°35'12.9" E	2°35'04.8" N	17.6.2022

Forest Landscape Restoration (FLR) Program

The FLR Program is promoted as a greening process by planting indigenous tree species in the degraded landscapes across Sarawak. Rural communities are encouraged to collect seeds of indigenous tree species during fruiting season. This program creates a win-win situation where local communities will have income while the FMU will be able to increase their nursery seedling stocks for tree planting under the FLR program or enrichment planting.

The area in the FMU to be restored is details as below. ([Right click here to access Map 5 - FLR](#)).

Month/ Year	Coupe/ Block	FLR Site Number	*FLR Area	Area Planted (m3)	Species Planted/ Scientific Name	Total Trees Planted
January 2023	03A	FLR 3	2	621	Kapur (<i>Drybalanops</i>)	66
February 2023	01A	FLR 8	2	118	<ul style="list-style-type: none"> Kapur (<i>Drybalanops</i>) Meranti (<i>Shorea</i> spp) 	324
March 2023	01A	FLR 9	2	36	<ul style="list-style-type: none"> Kapur (<i>Drybalanops</i>) Meranti (<i>Shorea</i> spp) Selangan Batu (<i>Shorea falcifera</i>) 	233

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.

Social Impact Monitoring for the Year 2023

The Social Impact Monitoring (SIM) on the local communities within and adjacent to the FMU was carried out by Forest Management Certification Team (FMC) on 16th - 19th October 2023.

In conclusion, forest management operations have provided positive impacts to the communities:

- Job opportunity at the logging camp has improve household income and economic status.

- There are also positive feedbacks from the respondents which related to logging roads and land use or ownership.
- Logging road has given the opportunity for the village to have new development either from the government or NGO and also for the villagers to improve their longhouses by having the materials such as cement, tiles and zinc to be delivered to their doorstep.
- The local communities are very depending on logging road for shorter access to nearby township or urban areas.

Furthermore, this has been one of the causes of migration from rural to urban areas. However, there are negative impacts on:

- Water quality by the adjacent forest activity area
- Forest resources and traditional economic activities such as hunting, fishing and collecting jungle and river produces still remain.
- The locals will have to compete with the outsiders for forest resources as the road access have caused easier access for outsiders to enter the area.
- Most of the respondents had their traditional agricultural land affected by the forest activities but that was the past experience.

More studies need to be done to determine suitable courses of action to mitigate these issues.

- The Jawatankuasa Keselamatan Kampung (JKKK) platform should be utilized actively in order to mitigate issues between FMU and villagers efficiently and effectively.
- These changes eventually caused changes in their socio-cultural life especially their traditional knowledge and skills.

Various co-joint programs can be proposed and implemented to enhance and maximize the benefits from forest management operations.

The Bah Sama 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.
- Costs will be monitored by budgetary controls in which productivity and the efficiency of forest management will of necessity also feature.

November 2023