



SHIN YANG FORESTRY SDN. BHD.

PUBLIC SUMMARY

FOREST PLANTATION MANAGEMENT PLAN

FOR

LPF/0019 – Masama FPMU

(June 2025)

1. INTRODUCTION OF MASAMA FPMU

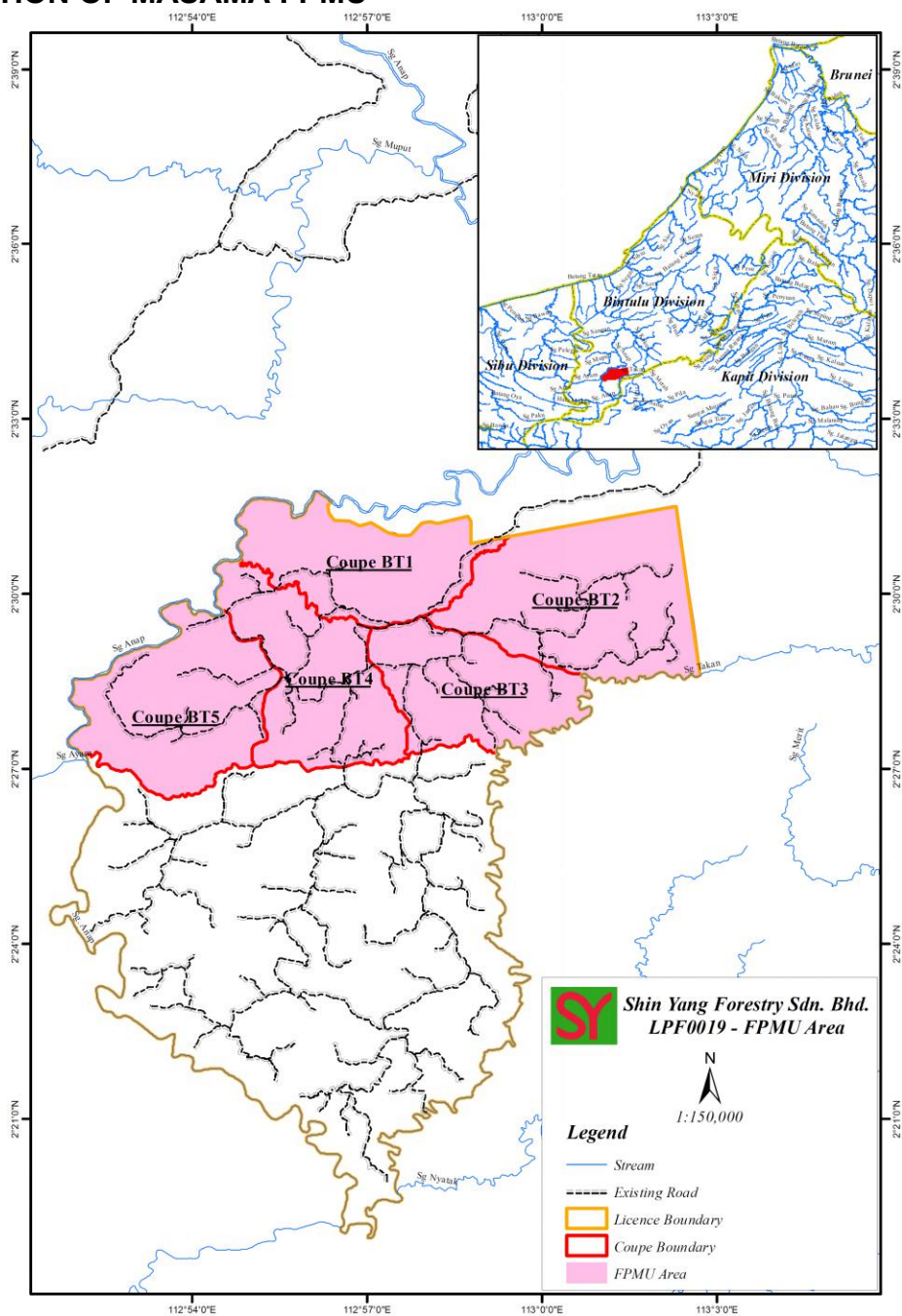


Figure 1.0: Location of LPF/0019-Masama FPMU

The Masama Forest Plantation Management Plan (FPMU) was part of Masama Estate, which has been granted under License for Planted Forest LPF/0019 with total gross area of Masama Estate was 25,730ha (divided into 10 coupes) and classified as Permanent Forest Estate (PFE) under the Anap Protected Forest. LPF0019 Masama Estate was managing by Shin Yang Forestry Sdn. Bhd. (SYF) commencing from 19 November 1999 to 18 November 2059.

The area had been certified for MC & I for Sustainable Forest Management (MC&I SFM) under the Malaysian Timber Certification Scheme (MTCS) was covering from Coupe 1 to Coupe 5 with total area of 11,946ha (refer Figure 1.1). About 56% from the total FPMU was planted with Industrial Trees Planting (ITP), 14% was Enrichment Planting areas and the balance of 30% is reserved in situ for NCR claims, Terrain IV, Buffer zone, water catchment and others conservation area.

Table 1.0: Details of the Masama FPMU area

| Coupe No. | Planted Area (ha) | | Un-Planted, Protected and Conservation Area (ha) | Total (ha) |
|--------------|-------------------|--------------------------|--|------------------|
| | ITP Planted Area | Enrichment Planting Area | | |
| BT1 | 517.00 | 519.70 | 1,046.30 | 2,083.00 |
| BT2 | 1,008.60 | 581.10 | 1,607.30 | 3,197.00 |
| BT3 | 1,884.80 | 0.00 | 71.20 | 1,956.00 |
| BT4 | 1,833.50 | 206.40 | 235.10 | 2,275.00 |
| BT5 | 1,423.90 | 421.60 | 589.50 | 2,435.00 |
| Total | 6,667.80 | 1,728.80 | 3,549.40 | 11,946.00 |

The logging licenses covering the whole site are T/4212 and this logging activities is still going. The FPMU site is about 120km South and Southwest of Bintulu town.

2. POLICY OF COMMITMENT

Date Issue : 26.07.2022
Rev. No. : 07



POLICY OF COMMITMENT MC & I for Sustainable Forest Management

Shin Yang Forestry Sdn. Bhd. manages tree seedlings in nursery, tree planting activities and tree harvesting activities at Kuala Baram tree plantation, LPF0017 (Kejin FPMU), LPF0018 (Penyuan FPMU) and LPF0019 (Masama FPMU) Site. This Policy of Commitment defines the company's commitment towards the Malaysia Criteria and Indicators for Forest Plantation Management Certification. This Policy will be a guideline for all levels of our employees and stakeholders in carrying out the company's business in a conscience manner.

Shin Yang Forestry Sdn. Bhd. menjalankan aktiviti pengurusan anak benih di nursery, aktiviti penanaman pokok dan aktiviti penuaian hutan di ladang hutan Kuala Baram, LPF0017 (Kejin FPMU), LPF0018 (Penyuan FPMU) dan LPF0019 (Masama FPMU). Dasar ini menjelaskan komitmen syarikat terhadap Kriteria dan Petunjuk Malaysia untuk Pensijilan Pegurusan Ladang Hutan. Polisi ini akan menjadi garis panduan kepada semua peringkat pekerja dan yang berkepentingan supaya dapat menjalankan bisnes syarikat dalam keadaan yang tertib.

It is our commitment to:

Ini adalah komitmen kami untuk:

1. Comply with all applicable laws, regulations and requirements related to forest management.
Mematuhi semua undang-undang, peraturan, dan syarat-syarat yang berkaitan dengan pengurusan hutan.
2. Operate according to approved Forest Plantation Management Plan and fulfils all conditions in the Environmental Impact Assessment Agreement.
Menjalankan operasi mengikut Rancangan Pengurusan Hutan Perladangan yang telah diluluskan dan memenuhi semua syarat-syarat di dalam Perjanjian Penilaian Impak Persekitaran (EIA).
3. Continual assessment, evaluation and improvement of forest management practices through monitoring and review.
Menjalankan penaksiran, penilaian dan penambahbaikan amalan pengurusan hutan yang berterusan melalui pemantauan dan kajian/penelitian semula.
4. Support local communities through employment opportunities and recognize local customs & Native Customary Right as defined by regional laws.
Membantu masyarakat tempatan dengan memberi peluang pekerjaan dan mematuhi adat-adat masyarakat tempatan & Hak Adat Orang Asal seperti yang ditakrifkan oleh undang-undang serantau.
5. Enhance the skills, knowledge and competency of employee and local community through relevant trainings.
Meningkatkan kemahiran, pengetahuan dan kecekapan pekerja dan masyarakat tempatan melalui latihan yang berkaitan.
6. Provide a safe working environment by adhering to occupational safety and health policy and ensure that all employees are trained in occupational safety and health.
Menyediakan persekitaran kerja yang selamat dengan mematuhi dasar keselamatan dan kesihatan pekerjaan dan memastikan semua pekerja diberi latihan berkenaan keselamatan dan kesihatan pekerjaan.
7. Ensure environmental degradation and pollution prevented or controlled through an effective control measures.
Memastikan kemerosotan dan pencemaran alam sekitar dicegah atau dikawal melalui kaedah kawalan yang berkesan.
8. Maintaining existing biological diversity by established the natural conservation and protection area.
Mengekalkan kepelbagaian biologi yang sedia ada dengan mewujudkan kawasan pemuliharaan dan kawasan perlindungan semulajadi.
9. Ensure the timber harvesting is sustainable and adhering to low impact harvesting methods.
Memastikan pembalakan dijalankan secara mampan dan mematuhi kaedah penuaian berimpak rendah.
10. Use only approved agrochemical registered with the Pesticides Board of Malaysia under the Pesticides Act 1974.
Hanya menggunakan agrokimia yang diluluskan dan berdaftar dengan Lembaga Racun Makhluk Perosak Malaysia di bawah Akta Racun Makhluk Perosak 1974.
11. Encourage the use of environmentally friendly non-chemical materials while minimizing the use of chemicals in pest and disease management practices.
Galakkan penggunaan bahan bukan kimia yang mesra alam sambil meminimumkan penggunaan bahan kimia dalam amalan pengurusan penyakit dan perosak.

Mr. Andy Wong Ko Hock
Executive Director &
Chief Executive Officer
26.07.2022

Datuk James Ling Lu Kiong
Group Executive Vice Chairman &
Group Managing Director
26.07.2022

3. MANAGEMENT OBJECTIVE

The management objective of the plantation is to enable a continuous supply of timber for downstream processing activities (plywood, veneer and particle board) especially for Shin Yang Group of wood processing plants. There is also the global sentiment to source for timber from planted forest instead of from natural forests. Planted forests have the advantage of planned and timed production, uniformity of logs and automation in the processing plants. They will also help to reduce harvesting pressure on the remaining natural forests.

Besides that, forest management also has the following objective:

- Optimum utilization of forest resources while ensuring ecological function
- Regulation of harvest on a sustainable yield basis
- To reduce environmental impact
- To promote natural forest conservation, restoration and enhancement within FPMU
- To maintain or enhance the long-term social and economic well-being of workers and local communities

4. MANAGEMENT SYSTEM

The forest plantation management is committed to Sustainable Forest Management (SFM) which is the process of managing forest plantation site to achieve one or more clearly specified objectives of management with regard to the production of a continuous flow of desired forest products and services without undue reduction in its inherent values and future productivity and without undue undesirable effects on the physical and social environment

5. FOREST RESOURCE DESCRIPTION

5.1. *Geology Soil*

The geology of the area is Central-North Sarawak type which is underlain by rocks referred to the Northwest Borneo Geosyncline. The rocks are sedimentary type of the Palaeogene series. The area may be underlain stratigraphically by the Baram Group where the main lithological features are those of shale, marl, limestone and sandstone. The main soil type in Masama FPMU area was the Kapit/Merit series. The Skeletal soils represented mainly by the Kapit series and Kapit/Merit series dominate most of the forest plantation site. The Kapit and Kapit/Merit soils are common in hilly areas in the forest plantation area. The Merit/Bekenu/Kapit soils are found on the North-western part of Masama area meanwhile, the Merit/Bekenu soils are found in the south-western part of Masama area.

5.2. *Growing Timber Stock*

The timber resources in the FPMU area originally are classified as logged over lowland to high hill mixed dipterocarp forests. The terrain is undulating to hill area stretching from base camp all the way to south area. Since this area is operated by logging before, most of the available natural resources are consists of second rotation mainly light to medium hardwood species. FPMU is designed for the purpose of planting of timber trees, as one of the alternatives to natural forests for timber supply. Therefore, the FPMU chose to plant medium-sized fast-growing trees, both exotic and indigenous species, with an average cropping cycle of 7-10 years.

List of species planted within the FPMU areas are:

- *Paraserianthes falcata*
- *Acacia mangium* superbull
- *Acacia mangium*
- *Acacia crassicarpa*
- *Neolamarckia cadamba*
- *Eucalyptus* spp.
- *Duabanga moluccana*

5.3. Non-timber Growing Stock

The FPMU area is a logged over forest, large part of the areas has already covered with planted forest therefore the natural forest areas only can be found along main rivers, shifting agriculture, biological corridor and terrain IV areas. The non-timber stock such as fruits and nuts, vegetables, fish and game, medicinal plants, bamboo, rattans, and a host of other palms and grasses are still available and can be found at remaining natural forest areas.

Non-timber products are mainly used by local community; mostly from Beketan dan Iban community. Among the wild games and fish being caught are wild boar, mouse deer, Kijang, Semah, Tengadak, Empurau and Bantak. In term of handicrafts, they common collected Biru' (*Licuala* sp.), Udap tot (*Donax* sp.), Senggang (*Hornstedtia reticulata*) for making rice sievers, backpack, mats and hats in a small quantity and for daily uses. Other than that they also collect upa' lalih (*Plectocomia geminiflora*), Aping (*Arenga undulatifolia*), Pantu (*Eugeissona utilis*) for food.

6. ENVIRONMENTAL LIMITATION

The FPMU site is undulating to hilly condition with slope of 6° to more than 30°. This terrain factor causes difficulty to access some area during the wet season (November until February) and the steep terrain has high potential to soil erosion during heavy rain. The mean annual rainfall is deduced to be about 548.595mm per month. Average rainy days are about 18days per month.

7. LAND USE

Masama FPMU area was formerly within Anap Forest Reserve and under the Forest Timber Licence T/4212. This forest plantation area was previously covered mainly by logged over hill mixed Dipterocarp forest. A large portion of the forest plantation area would be subjected to NCR claims because of shifting cultivation by several longhouses located along the Sungai Anap River. Most of these settlements had cultivated the land near to their respective settlement for hill padi and other annual crops. Small patches of temuda/pulau could be seen along some of the logging road.

Development of the plantation involves several stages such as project site investigation, nursery establishment, plantation buildings and amenities, land preparation, construction of infrastructure, field establishment, maintenance and abandonment and replanting.

8. SOCIO-ECONOMIC CONDITION

A total of nine longhouses are located within and adjacent to the FPMU area. Most residents practise Christianity or paganism, with only one family identified as Muslim. A summary of the villages and their demographic information is shown below and the approximate location of the longhouses were shown in Figure 2.0.

Table 2.0: List of longhouses within and adjacent to Masama FPMU

| No. | Village Name | Ethnicity | Religion | No. Of Door |
|--------------|-------------------|-----------|-----------|-------------|
| 1 | Rh. Anai | Iban | Christian | 7 |
| 2 | Rh. Dilang | Iban | Pagan | 33 |
| 3 | Rh. Johnny Mancha | Iban | Pagan | 10 |
| 4 | Rh. Kelisop | Beketan | Christian | 36 |
| 5 | Rh. Medan | Iban | Pagan | 14 |
| 6 | Rh. Nyanau | Iban | Pagan | 27 |
| 7 | Rh. Reenie | Beketan | Christian | 10 |
| 8 | Rh. Satan | Iban | Pagan | 22 |
| 9 | Rh. Wan Brujong | Beketan | Christian | 18 |
| Total | | | | 177 |

The main occupation of the people was farming. About 60% were farmers while the rest working with government agencies and private companies at various cities such as Bintulu, Kuching, Miri and Sibul. A small number of locals work with our company. The main crops of the local communities was planted hill padi which were grown by shifting cultivation, and annual crops (maize, vegetables) in addition to some fruit trees, oil palm and pepper.

A boarding primary school, SK Nanga Tau and a small, rural clinic (Klinik Desa Ng. Tau) were established by related government agency in the area to cater for education and health needs of the local community.

There was no direct electricity supply to the longhouses. The people used their own generator. There was also no reliable water supply although most of the longhouses have gravity pipe water. Every door has at least a large water storage tank supplied by the Medical Department.

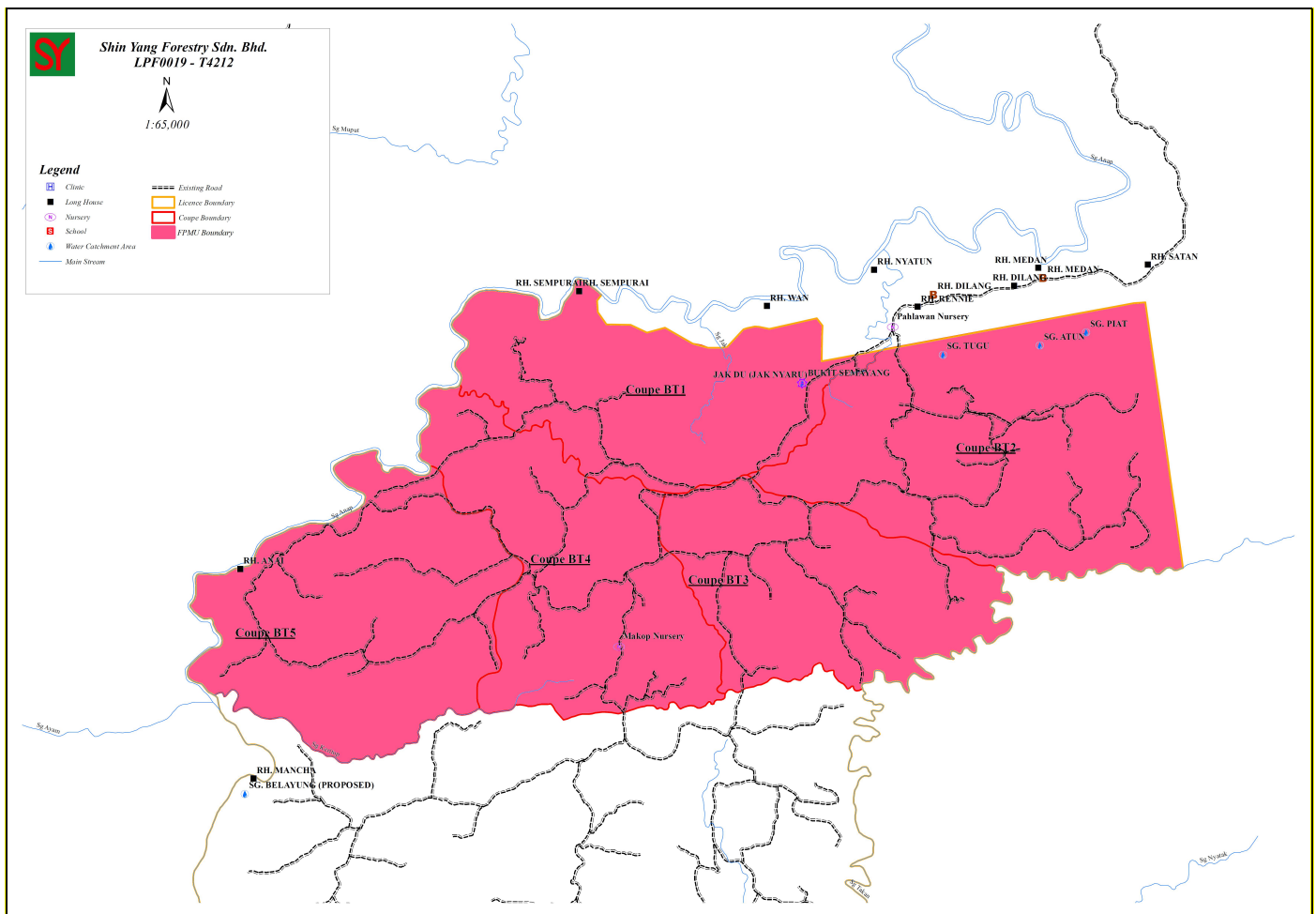


Figure 2.0: Location of the longhouses within Masama FPMU

9. PLANTATION ESTABLISHMENT

9.1. Choice Of Species

The FPMU is established with a mix of trees species both exotic and indigenous species with the predominant species are *Acacia mangium* and *Paraserianthes falcataria*. Minor species include *Neolamarckia cadamba*, *Acacia auriculiformis*, *Duabanga molucana*, *Eucalyptus* spp. and *Azadirachta excelsa*. The latter will be established on a small scale of trial basis and will be closely monitored by the Company. If proven successful to meet the Company's needs in short rotation its establishment will be undertaken on a larger scale.

9.2. Nursery Practices

The nursery is carefully design with production capacity of approximately 3 million seedlings per year. The nursery systems is based on the production of seedlings in plastic trays of various sizes.

The nursery includes germination house/seeds sowing areas, vegetative propagation green house, adjustable shade growing areas, and semi-automatic irrigation system.

9.3. Site Preparation

There is two ways of land preparation methods, namely open clearing for Industrial Tree Planting and Under Canopy Slashing for enrichment planting. Open clearing is applied for flat to mild terrain areas that does not exceed 25° slope. Under canopy slashing is used for steeper terrain and fragile areas to avoid soil erosion, land slide etc. Details procedure on site preparation can be refer to Tree Planting Manual

10. SILVICULTURE

10.1. Thinning

Some areas will also undergo liberation thinning to provide more growing space for better trees to grow at their maximum rate, yielding the next harvest in as short a time as possible.

Thinning involves in two stages:

- a. Upon canopy closing - Basically, this stage applies when the trees reach age of two to three years for fast growing species.
- b. Based on the PSPs data - This thinning practice will be applied to boost the tree growth if the trees in plantation site still in small diameter as it already reach age five to seven years.

10.2. Pest And Disease Control

In the event that pests or disease are found to affect the Plantation, and the management has decided that control measures are to be implemented, the control measures will include:

- a. Changing the species planted in the affected areas or use more resistant clones;
- b. Eliminating the organism or known sources from the plantation area;
- c. Avoiding conditions that are conducive to the survival of the pest/ disease organisms;
- d. Adjust and refine silvicultural practice;
- e. Direct control using insecticide, fungicides or other biocides; and
- f. Biological control using natural enemies of the pests.

10.3. Weed Control

For the first cycle maintenance, weed and low shrubs which are part or the indigenous ground covers need to be slashed back at regular intervals during the initial 3 month of after planting because some species do not tolerate well competition from weeds (Grass height must not more than half height of the planted trees). For the second cycle of weed control is depend on the site condition.

11. HARVESTING PLAN

11.1. Harvesting Operation Prescription

a. Cutting Rules

The FPMU may fell any planted species of trees which are not prohibited by the Forest Rules and Wildlife Protection Ordinance. Permanent waterways with continuous flow of water throughout the year will be protected by a buffer zone (width of buffer zone is depend on the width of the stream) on both bank of the river and no activities will be permitted in this areas. . Reduce impact logging procedure – The management of forest plantation takes cognizance of the “Reduce Impact Logging, Guidelines/Procedures for Ground Based Harvesting System Using Tractor” applicable to its harvest operation.

b. Cutting Limit

The is no minimum tree size enforced on the harvesting of the standing ITP. All the trees at the permitted block will be clear cut.

c. Harvesting System

Harvesting system engaged are RIL and Cable Yarding system to reduce impact especially to the soil and water value, and minimize damage to the residual stand. As fast growing pioneer species need a full light condition for its good growth, that is different from natural tropical tree species, clear felling system will be applied. Protected areas such as Terrain Class IV and Riparian Buffer Zone are strictly prohibited and protected from any disturbance activities.

11.2. Period Of Harvesting

Based on the present research data available from PSPs and proposed diameter cutting limit (minimum 10cm DBH), the growth rates and rotation length for harvesting will be commenced at 10 years after planting in normal case.

11.3. Annual Allowable Cut (AAC)

The allowable cut is based on area control, in accordance with the approved General Harvesting Plan (GP) of the licensed area. For the planning period for year 2015 to 2021, the ACA was 352.57ha/year, and for the planning period for year 2022 to 2024, the ACA was 1399.93ha/year.

12. MONITORING OF FOREST GROWTH AND DYNAMIC

Proper yield plots have been set up to monitor performance of trees, growth rate of the planted forest and yield of all forest products harvested so that useful data could be procured for estimates of stocking size, quality and stand volume of the plantation. The location of each plot is randomly chosen within the FPMU area and will be measured annually. Pest and disease information is also collected at the time of assessment.

13. ENVIRONMENTAL SAFEGUARD

13.1. Environmental Impact Assessment (EIA) Report

The Environmental Impact Assessment report for the LPF0019 forest Plantation "Environmental Impact Assessment " was approved by NREB Sarawak dated 15th July 2000.

13.2. Environmental Monitoring Report (EMR)

The environmental monitoring and review is done by Ecosol Consultancy Sdn. Bhd. quarterly. The monitoring includes water course quality monitoring. The report is submitted to the NREB quarterly.

13.3. NREB Verification and Inspection Visit of The FPMU

The NREB regularly carries out routine environmental inspection on the compliance to the Terms and Conditions of the EIA Report Approval document for the project area.

13.4. Patrolling by FPMU Holder

FPMU holder has been develop patrolling schedule to ensure the protected and HCV areas is remains intact, control encroachment, fire monitoring and to prevent/control unauthorized activities in forest plantation areas.

14. IDENTIFICATION AND PROTECTION OF RARE, THREATENED AND ENDANGERED SPECIES

The guidelines used for identification and protection of ERT species of forest flora and fauna including features of special of special biological interest area:

- a. Wildlife Protection Ordinance 1998
- b. Sarawak Plant Red List
- c. A Master Plan for Wildlife in Sarawak 1996
- d. HCVF Toolkit for Malaysia
- e. Orang Utan Strategic and Action Plan
- f. The IUCN Red List of Threatened Species at www.iucnredlist.org

Sign boards has been installed at strategic locations. The entry to FPMU area shall be limited to the unauthorized person. A schedule for monthly patrol for the year has been developed to control fire, hunting, fishing and collecting activities in the forest plantation areas.

Signage detailing the Director of Forest Circular 6/99 have been erected in front of the entrance detailing 4 items:

- a. Employees of the Timber Companies are not to hunt in the licensed areas while they are in the employ of the company.
- b. Company vehicles are not to be used for hunting or for carrying meat of wild animals.
- c. Selling of wild animals or meat of wild animals is not allowed in the licensed area.
- d. Feeder roads are to be closed after the final block inspection to prevent further entry of vehicles.

15. HIGH CONSERVATION VALUE (HCVs)

Identification of the protection areas in FPMU area is carried out based on guidelines High Conservation Value Forest (HCVF) Toolkit for Malaysia. Masama (in-part) FPMU HCVs assessment was carried out by Sarawak Forestry Corporation on 21st – 27th May 2015. Sub-teams assessed biodiversity, ecosystem service value, social and cultural values and found that all six major values listed in the HCVF Malaysia Toolkit (2009) are present.

The Masama (in-part) FPMU is adjacent to Bukit Mersing National Park at the east border (HCV1.1). A significant number of HCV biodiversity species are present in the study area and surrounding. There were also signs of critically endangered (CR), endangered (EN), vulnerable (VU) and nearly threatened (NT) flora and fauna (HCV 1.2) observed during the assessment. There are 2 endemic fauna species and 43 flora species found in the study sites (HCV 1.3). Areas for critical temporal use were also identified to be present (HCV 1.4).

The area is an important linkage between larger forest complexes as it surrounded by Licence Planted Forest, National Parks and Forest Management Unit (HCV 2). Lowland Dipterocarp forest cover the whole area and this type of forest becoming rare and endangered as a result of the deforestation and degradation of it ecosystem (HCV 3). The landscape of Masama Plantation is undulating and steep areas with more than 35° slope recorded (HCV 4.1). To ensure that his value is maintained or enhanced, a river buffer prohibiting logging operation is required, and the size of the buffer depends on the size of the river or stream (HCV 4.2). The area at Masama Plantation is potentially a fire prone area as young tree species is very vulnerable to fire and degraded forest at Coupe 8 – 10 are highly susceptible to fire (HCV 4.2). A certified management forest is adjacent to this area (HCV 4.3).

Result of the assessment for social and cultural values suggested that the majority of communities still depend on the forest to some degree. A total of six (6) longhouses are located within and adjacent to Masama Plantation. The communities from the six longhouses, namely Rh. Dilang, Rh. Sempurai, Rh. Mancha, Rh. Anai, Rh. Wan and Rh. Nyatun are depending on the forest available in the area for meeting their basic needs and the forest is critical to theier cultural identity as two burial sites and Bukit Semayang are present (HCV 5 & 6).

Management and monitoring of the six HCVs is carried out are as follows:

- Buffer zone of 500 meter wide was established along the boundary bordering with TPA and along riverbanks flowing into TPA
- Maintain the no hunting policy and enforce it consistently and high concentration of ERT species should be left alone.
- Measures are put in place to ensure the population of endemic fauna and flora continues to exist in FPMU area.
- Salt lick areas will not to be disturbed and frequently monitored and buffer zones at salt lick area will be established to protect the saltlicks.

- A biological corridor is established for wildlife to move from one part of the forest to another. This biological corridor is demarcated on the ground and map.
- Boundaries of shifting agriculture and terrain class IV is mapped and demarcated on the ground.
- Forest fire monitoring and prevention plan is established by adopting the forest fire monitoring and prevention plan from the EIA report.
- Adopt the Conflict Resolution Guidelines for Sustainable Forest Management to discuss the community-forest issues.
- Proper discussion on the establishment of reserved boundaries around the proposed Pemakai Menoa, Pulau Galau and Temuda has to be done and a written agreement should be prepared and signed once both parties agree on the issue.
- Demarcation of agreeable buffer zones of 2 burial sites belongs to Rh. Mancha and Rh. Wan and also Bukit Semayang.

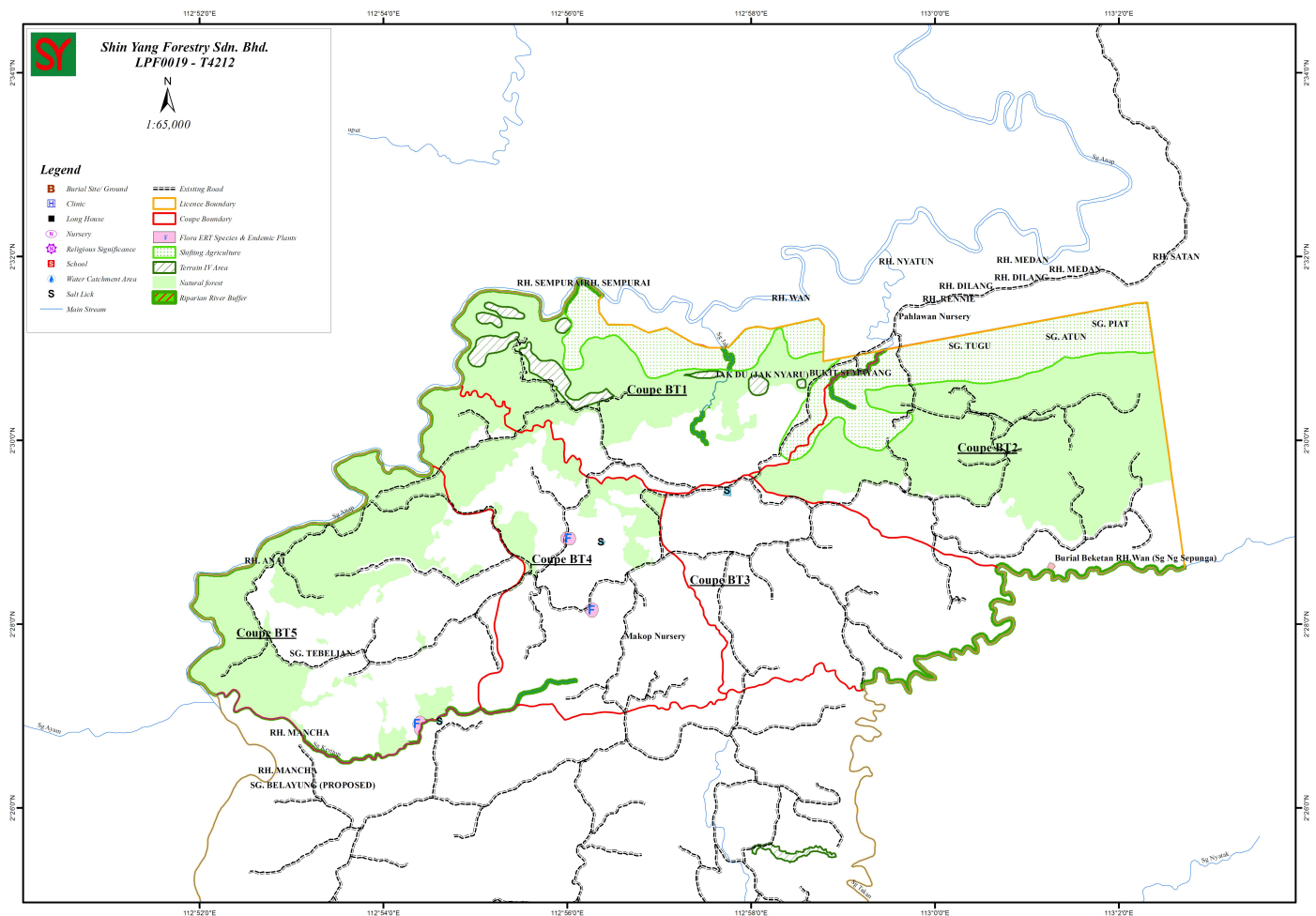


Figure 3.0: HCV within Masama FPMU

16. RESULT OF FOREST MONITORING AND ASSESSMENT

16.1. Yield Of All Forest Products Harvested

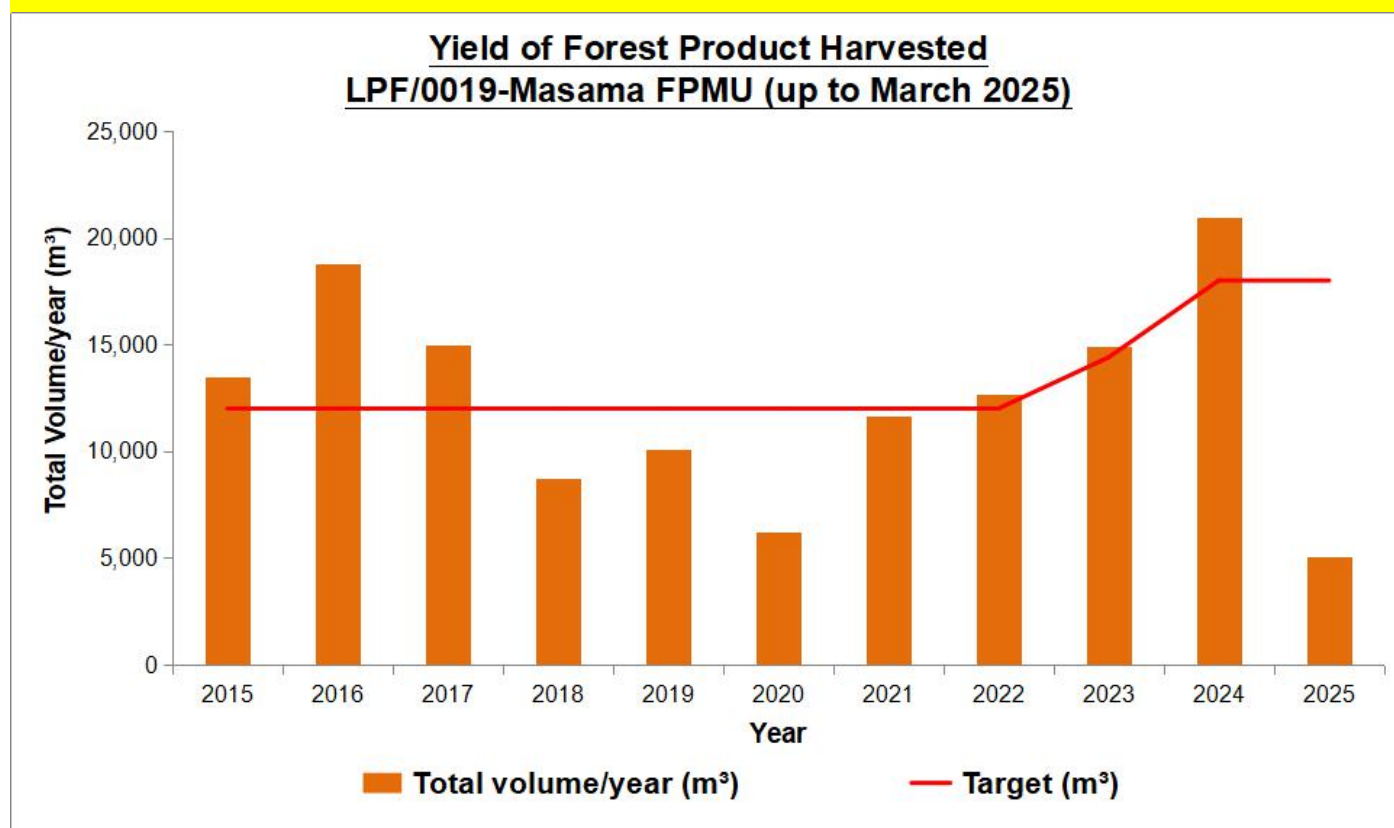


Figure 4.0: Yield of forest product harvested within LPF0019 Masama FPMU (up to March 2025)

16.2. Growth Rates Of The Planted Forest

Based on data collected from the established PSPs (date of assessment, February 2024), the average MAI for *P. falcata* was 12.29m³/ha, meanwhile for *A. mangium* was 19.16m³/ha, *Neolamarckia cadamba* was 8.34m³/ha, and *Eucalyptus* spp. was 12.38m³/ha.

16.3. Composition And Observed Changes In The Flora And Fauna

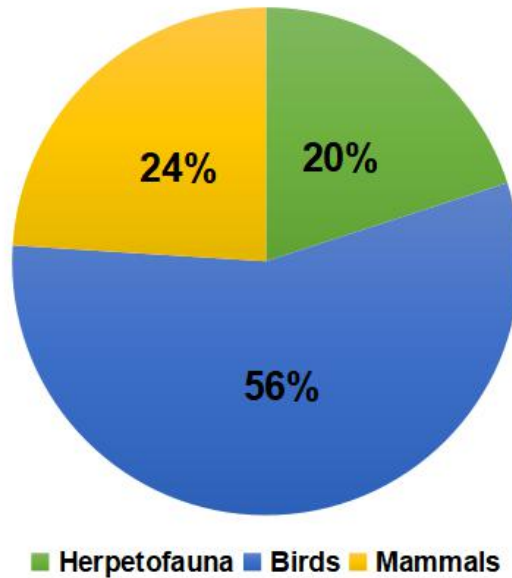
16.3.1. Flora

The undisturbed forest was confined to buffer zone/wildlife corridor and others protected areas. There is no further study on the changes of flora due to lack of expertise.

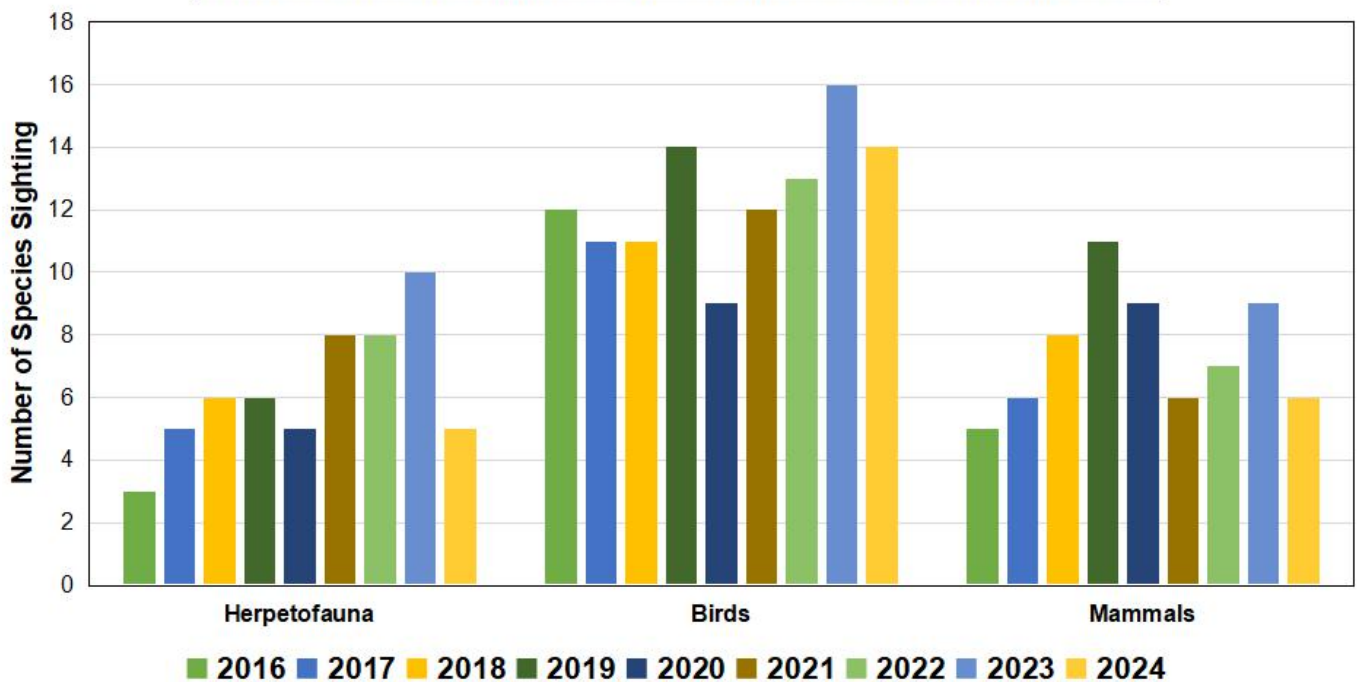
16.3.2. Fauna

The fauna species has been identified by our Surveyor during monthly patrolling. Some of the species cannot be identify due to lack of expertise.

**WILDLIFE SPECIES IDENTIFIED IN MASAMA FPMU THROUGH
SIGNTINGS IN YEAR 2024**



**NUMBER OF SPECIES IDENTIFIED IN MASAMA FPMU
THROUGH SIGNTINGS IN YEAR 2016 TO YEAR 2024**



16.3.3. Environmental And Social Impacts Of Harvesting And Other Operation

16.3.3.1. Environmental impacts

Based on the EMR Report for Masama Estate (EMR reference No.: NREB/6-3/2G/8) for year 2024, the results of the water quality analysis at 4 water sampling point are tabulated in Table 3.0 below:

Table 3.0: Results of Water Quality Analysis for Masama Estate for Year 2024

| Parameter (unit) | EIA Baseline Data | SSM3 | SSM4 | SSM5 | SSM6 |
|----------------------|-------------------|--------|--------|-------|--------|
| pH | 5.74 | 7.00 | 7.00 | 7.00 | 6.95 |
| DO (mg/l) | - | 6.30 | 6.50 | 6.45 | 6.40 |
| BOD (mg/l) | 2.20 | 2.00 | 2.50 | 2.00 | 2.00 |
| COD (mg/l) | 16.00 | 13.00 | 13.00 | 10.00 | 13.50 |
| TSS (mg/l) | 67.80 | 8.50 | 2.00 | 3.00 | 2.00 |
| Turbidity (NTU) | - | 7.80 | 0.80 | 1.25 | 1.00 |
| Amm. N (mg/l) | 0.05 | 0.03 | 0.03 | 0.02 | 0.03 |
| NO3-N (mg/l) | 0.18 | 0.10 | 0.10 | 0.10 | 0.10 |
| Phosphorus, P (mg/l) | 0.02 | 0.02 | 0.02 | 0.01 | 0.02 |
| TCC (MPN/100ml) | 466.60 | 144.50 | 188.50 | 91.50 | 274.00 |
| TFC (MPN/100ml) | 197.20 | 25.00 | 19.00 | 11.00 | 86.00 |

Others Environment Parameters

- Biodiversity Conservation and Retention of Buffer Zone - The major drainage systems in the Plantation were in place. Sufficient riparian buffers with vegetation had been set aside along the major waterways
- Domestic Waste Management - Sanitary toilets with septic tank facilities had been provided. The domestic wastes generated at the workers' camps are collected and dumped in a pit within the Plantation.
- Workers Health and Safety - No major communicable or vector-borne disease or major occupational accidents had been detected or reported.
- Pest and Disease Management - Pest and disease are not a serious problem in the Masama Plantation.



16.3.3.2. Social impacts




As in year 2024, there were 18 staff members and 4 general workers employed; 14 of them were locals and 8 foreigners. All the employer are staying in the labour quarters



There are no major complaints, land disputes or conflict encountered between local communities and FPMU since year 2014 until year 2024. There is no any activities carry out in the areas liable to NCR claims. The FPMU had excluded 1,001.00ha of the area for Shifting Agricultural (SA) used for the local communities.

As part of the social contribution the management of the FPMU had provided free transportation to the local communities on requests, foods and drinks for special occasions, repair of access roads to longhouses. The management had contributed RM34,012.76 to its CSR project for for the year 2020-2024. The CSR activities are mainly on infrastructure, donation and aids.

16.3.4. High Conservation Value Area (HCVA) monitoring result

| HCV | Management strategic | Monitoring | Result of Monitoring For Year 2024 |
|-----|---|--|--|
| 1.1 | <ul style="list-style-type: none"> ❖ A buffer zone of 500meters wide will be established along the boundary bordering the Bukit Mersing National Park. ❖ The buffer zone is demarcated on ground using green paint & in map | Monthly forest patrolling of the buffer zone to ensure the integrity remains intact. | <ul style="list-style-type: none"> ✓ The buffer zone along the boundary bordering the Bukit Mersing National Park still remains intact and no illegal entries recorded. |
| 1.2 | <p>Fauna</p> <ul style="list-style-type: none"> ❖ Continued and enforced the 'No Hunting' policy in Masama Estate ❖ Prohibit the company's vehicles or private vehicles to transport wild animals or wild meat ❖ Signage and fencing will be erected at certain areas to inform and stop illegal entries ❖ Enrichment planting of fruit trees and plants in areas that cannot be planted and along the biological corridor. <p>Flora</p> <ul style="list-style-type: none"> ❖ Tagged the Totally Protected Plants ❖ Incorporated the survey data into Forest Plantation Management Plan and Harvesting Plan | <p>Fauna</p> <ul style="list-style-type: none"> ❖ Record all the incidents ❖ Record and daily check all the vehicles pass by the main gate <p>Flora</p> <p>Carry out annual forest inventories to understand their survival and regeneration</p> | <ul style="list-style-type: none"> ✓ Up to December 2024, there is no illegal entries within the HCVA areas was recorded since Masama FPMU carried out daily check all the vehicles pass by the gate.  |
| 1.3 | <p>Fauna</p> <ul style="list-style-type: none"> ❖ Protect the salt lick areas and seed plants <p>Flora</p> <ul style="list-style-type: none"> ❖ Tagged the endemic plants | <p>Fauna</p> <ul style="list-style-type: none"> ❖ Record all the incidents ❖ Record and daily check all the vehicles pass by the main gate <p>Flora</p> <p>Carry out annual forest inventories to understand their survival and regeneration</p> |  <ul style="list-style-type: none"> ✓ Verification of the ERT species within Masama FPMU has been carried out. |
| 1.4 | Salt licks will not to be disturbed and a minimal buffer of 100m will be left undisturbed to protect the salt lick. | <ul style="list-style-type: none"> ❖ The existing salt licks will be recorded, marked in the map. ❖ Annual monitoring of the salt lick to ensure the integrity remain intact. | <ul style="list-style-type: none"> ✓ There is no encroachment reported throughout year 2024 ✓ The existing salt lick still remains intact and the salt lick was filled with tracks of animals such as Barking Deer. |
| 2 | <ul style="list-style-type: none"> ❖ Strictly limit the use of tractor on Class IV terrain ❖ Conserve the buffer zones along major rivers ❖ Conserve buffer zones surrounding salt lick ❖ Protect the important fruits trees for animals as listed in the WLPO | <ul style="list-style-type: none"> ❖ Carried out annual internal audit ❖ Carried out awareness program with the local community to gain their cooperation and support in the conservation of protected plants and animals, and to minimize hunting in the FPMU area. | <ul style="list-style-type: none"> ✓ Awareness program has been done on January and February 2024 with all the local community living within and adjacent FPMU areas. |
| 3 | Boundaries of shifting | Periodical monitoring of | <ul style="list-style-type: none"> ✓ The SA boundary still remain intact and no |

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| | agriculture and terrain class IV will be mapped and physically demarcated on the ground using green paint | the boundaries to ensure the integrity remain intact. | encroachment recorded |
| 4.1 | <ul style="list-style-type: none"> ❖ The identified Class IV terrain will be mark on the ground and in map. ❖ The harvesting activities will not be conducted inside the Class IV terrain ❖ As for as possible practice enrichment planting for areas Class IV terrain | <ul style="list-style-type: none"> ❖ Monitoring will done during harvesting and post harvesting operation to ensure no/minimal disturbance to the identified Class IV terrain. ❖ Water quality will be monitored quarterly for Sg. Anap, Sg. Takan and Sg. Keritop | <ul style="list-style-type: none"> ✓ The current Terrain IV (at Coupe 1) remain intact, and no illegal activities was recorded. ✓ Based on the Environmental Monitoring Report (Ref. No.: NREB/6-3/2G/8) for year 2024, the water qualities in Masama Estate were generally very good with all of the reading found well within the Class IIB standards. There were no undue pollution detected |
| 4.2 | <ul style="list-style-type: none"> ❖ A minimal of 20m buffer zone will be place on both banks for all the major rivers, such as Sg. Anap, Sg. Takan, Sg. Keritop ❖ The buffer zone will be demarcated in map and on ground using blue paint. | Periodical monitoring of the buffer zone to ensure the integrity remain intact and any incident of encroachment or felling will be recorded | <ul style="list-style-type: none"> ✓ All the existing riparian buffer zones and wildlife corridor has been demarcated on ground and still remain intact.   |
| 4.3 | <ul style="list-style-type: none"> ❖ Forest Fire Management Plan will be establish by adopting the forest fire monitoring and prevention plan from the EIA report. ❖ Burning permit must be obtained from the NREB for supervised burning prior to any burning. | Periodical fire monitoring within the plated forest will be carry out. | <ul style="list-style-type: none"> ✓ Based on fire monitoring report, there is no forest fire recorded until December 2024 |
| 5 | <ul style="list-style-type: none"> ❖ Demarcation of agreeable size of buffer zones around the water catchment using blue paint. ❖ Enrichment planting of suitable tree species surrounding the buffer zones of the water catchment ❖ A proper discussion between the communities and Masama Estate on the establishment of the reserved boundary around the Pulau Galau, Pemakai Menoa and Temuda | <ul style="list-style-type: none"> ❖ Annual monitoring surrounding the demarcated water catchment areas will be carry out to avoid any illegal felling of trees activities that will contribute to water pollution. ❖ Annual consultation with local community | <ul style="list-style-type: none"> ✓ Based on the annual consultation with the local community on January and February 2024, the Shifting Agriculture Areas, water catchment area was still remain intact and there is no complain/grievance received regarding the said area from the locals community.  |

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| 6 | Demarcation on a negotiable boundary around the burial site and praying hill using green paint will be conducted and will deliberate through consultation between the local communities and the management of plantation. | <ul style="list-style-type: none"> ✧ Annual monitoring surrounding the demarcated burial site and praying hill will be done. ✧ Annual consultation with local community |  <p>The praying hill still remain intact, even this area are no longer used by the local community</p> |

16.3.5. **Cost and productivity of forest management**

Cost and productivity of the company's operation was confidential. Please refer to the management for details and information.

17. **LIAISON COMMITTEE**

Liaison committee responsibility is as below:

- Issues over tenure claims and use rights.
- Conflicts pertaining to the recognition of the legal and customary rights of the local communities.
- Measures threaten or diminish resources or tenure rights of the local communities.
- Protected the sites with special cultural, ecological, economic or religious significance to the local people.
- Long term social and economic well-being of forest workers and local communities.
- Grievances and provide fair compensation in case of loss or damage affecting the legal customary rights or livelihoods of local people.
- The use of the forests' multiple products and services to ensure economic viability with the environmental and social benefits.
- Carry out annual consultation to maintain the long-term social and economic well-being of local communities

18. **COMMUNITY'S ISSUE RESOLVING**

Any conflict and grievances between local community and company will be resolved according to Mechanisms to Resolve Local Community Issues (SYF / MC & I / P.09) by following the relevant laws (either federal or state laws) as below:

- Federal Constitution – Article 8 and 13
- Land Code (Cap. 81) – Section 5 and 6
- Human Right Commission of Malaysia Act, 1999
- All adat codified under the Native customs (Declaration) Ordinance, 1996, and any other adat recognized and enforceable by the Native Courts under the Native Courts Ordinance, 1992, and the Native Courts Rules, 1993
- Decisions of the Civil Courts pertaining to legal or customary tenure or use rights



SHIN YANG FORESTRY SDN. BHD.

RINGKASAN PROSEDUR PENYELESAIAN KONFLIK / PERMOHONAN BANTUAN CSR

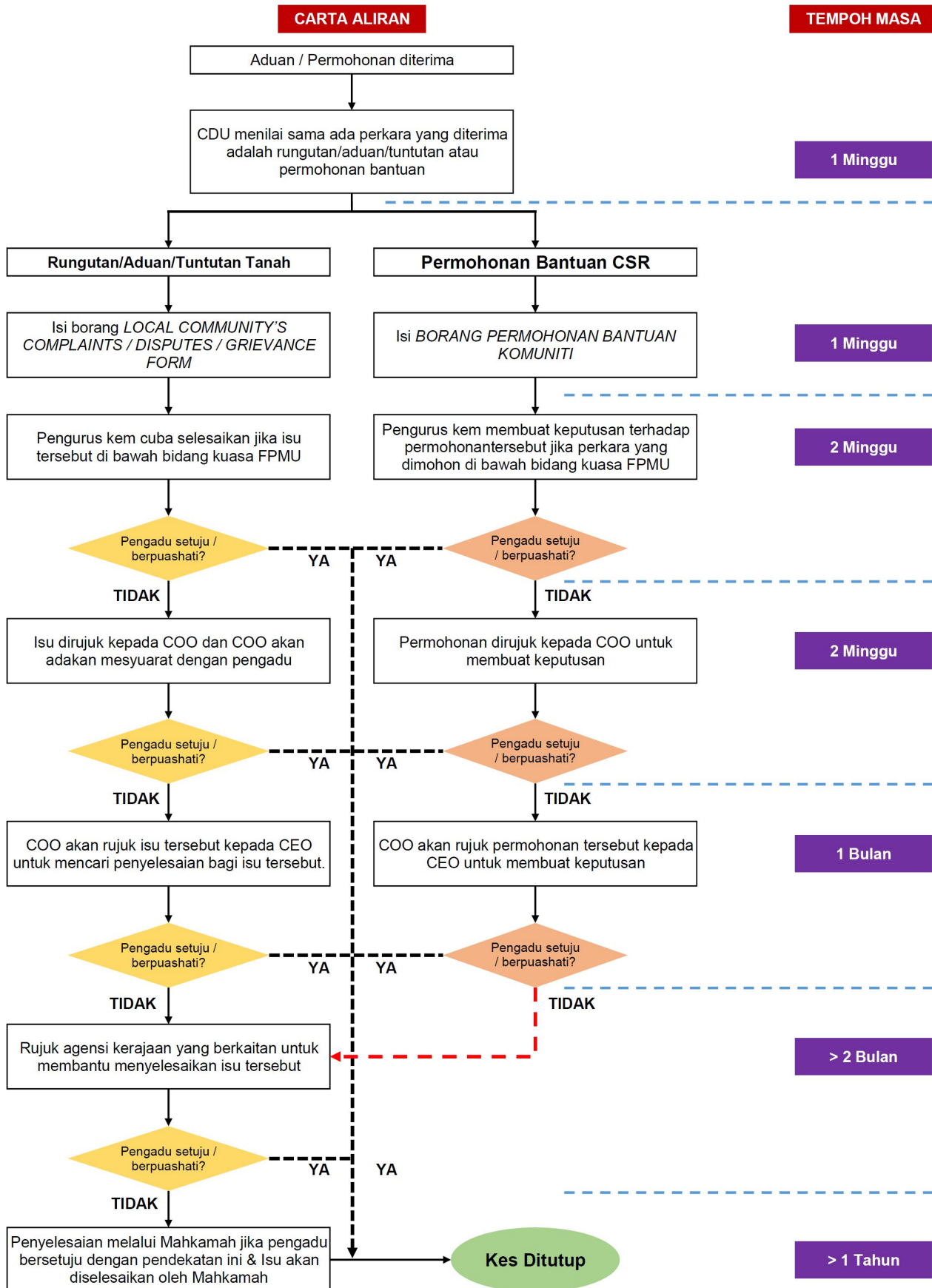


Figure 4.0: Grievance procedure process flow

19. COLLABORATIONS & RESEARCH

Some studies will be parts of our research activities in this tree plantation project. Shin Yang Forestry Sdn Bhd with collaboration of Sarawak Forestry Corporation (SFC) and University Putra Malaysia (UPM) under MoU signed in 2012. Further research will be carried out for technical development of tropical tree plantation. The planned studies are as follows:

- Silviculture scheme and yield
- To determine the best harvesting time
- Biological disease control without agrochemicals

Other items in MoU:

- Permanent Sample Plot management
- Biological control and protection
- Study on carbon foot print
- Research and Development on Nursery, Tree Plantation and Reforestation
- Nursery practice and planted forest establishment
- Plant propagation techniques
- Biological control and protection

20. BUDGETARY

Annual budget includes the expenses of overall operations and activities namely; Nursery, Land preparation, Planting & Supply, Silviculture, Harvesting, Conservation & Monitoring, Transport & Infrastructure including social program, Amenities for workers, Safety, Staff training, research development etc.