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Interhill Logging Sdn. Bhd.
A member of Interhill Group of Companies

PUBLIC SUMMARY

of

Forest Management Plan

for

Akah Patah Forest Management Unit

under

Damai Cove Resorts Sdn. Bhd.

Forest Timber Licence FTL No. T/9089

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February 2023

INTRODUCTION

This public summary of the Forest Management Plan (FMP) is produced for the Akah Patah Forest Management Unit (Akah Patah FMU) which is licensed to Damai Cove Resorts Sdn. Bhd. under Forest Timber Licence FTL No. T/9089.

The FMP is prepared for a period of 10 years (2020 to 2029). This FMP has been prepared in order to enable the FMU to go for Forest Management Certification with the Malaysian Criteria and Indicators for Sustainable Forest Management (MC&I SFM 1/2020) under the Malaysian Timber Certification Scheme (MTCS).

THE FMU

The Akah Patah FMU has gross area of 61,527 ha. It has an irregular shape which stretches between Latitudes 3° 12.77' N to 3° 35.34' N and Longitudes 114° 44.80' E to 114° 00.07' E. About 9.43 % of the FMU (5,804 ha) is within the Tutoh-Apoh Protected Forest (PF) and its extension, 16.64 % or 10,236 ha is in the Maringong PF, 1.64 % (1,009 ha) in the proposed Suro-Tutoh PF, 4.48% (2,755 ha) in the Suling-Selaan PF and 10.61 % (6,527 ha) in the Telang Usan PF (proposed 1" Extension). The remaining area of 57.20 % (35,196 ha) is State Land. ([Right click here to access Map A - Locality Map of Akah Patah FMU](#)).

Interhill Logging Sdn. Bhd. has been the logging contractor since 17 April 2002. The certificate of registration with Forest Department Sarawak is renewed annually.

ACCESSIBILITY

The FMU can be reached from Long Lama by roads constructed by JKR, logging and plantation companies. From Long Lama, the logging road proceeds eastwards and then in south-east direction to the Kabing Camp inside the FMU.

TOPOGRAPHY

The topography of the FMU has elevations ranging from 100 m to over 1,000 m above mean sea level (amsl). The highest elevation is Bukit Tebangan (over 1,300 m amsl) which is located in the north-east sector of the FMU. The topography is classified into four terrain classes: Terrain Class I (1%), Terrain Class II (27%), Terrain Class III (65%) and Terrain Class IV (7%).

THE FOREST

The Mixed Dipterocarp Forest (MDF) is the dominant and important forest type found in the FMU. Mixed Dipterocarp Forest High Density [MD3] (11,123 ha) and Mixed Dipterocarp Forest Medium Density [MDR2] (20,676 ha) form the bulk of the timber stand. Mixed Dipterocarp Forest Low Density [MD1] (1,132 ha) and Terrain IV (1,542 ha) have minor presence. Shifting Agriculture (SA) with 11,915 ha comprises 19.4% of the FMU. About 24.6% (15,139 ha) of the FMU has indeterminate forest cover due to cloud cover and photo gap.

FOREST RESOURCE ASSESSMENT (FRA)

The Forest Resource Assessment (FRA) forms an essential component of forest management planning. For the assessment of timber resources, the establishment of thirty (30) FRA Sampling Units (SUs) and systematic recording of field data and information were carried out. The average total volume of trees generated from 5 cm dbh and above is 163.875 m³/ha comprising of 53.739 m³/ha for Dipterocarps and 9.668 m³/ha for Commercial Non-Dipterocarps. The presence of the Dipterocarps is rather low at 13.1% for a MDF which could be due to intensive harvesting of the Dipterocarps being the preferred timber species. The concentration of trees with both low diameter and high stand basal area at the low diameter class are indicative of a young residual tree stand due to the removal of larger trees during the previous harvest. Dipterocarps slightly increases with a higher diameter class, with the highest percentage at diameter class 40-49.9 cm. This is a good pre-condition for future silvicultural management towards enhancing the Dipterocarp portion of the harvestable tree volume.

FOREST ZONING

The FMU has been zoned into three (3) forest functions and the break down are: Protection (Terrain Class IV area, river/NCR buffer zone and water catchment), 5,980 ha (9.71 %); Community Use/Shifting Area 11,915 ha (19.37 %); and Production (Operable area), 43,632 ha (70.92 %).

MANAGEMENT PLAN PRESCRIPTIONS

The management plan prescriptions shall abide by the Sarawak Forestry Policy (2019) and the Policy Direction on Forest Management Certification in Sarawak. Harvesting is restricted to trees of DBH 50 cm and above for Dipterocarps and DBH 45 cm and above for Non-Dipterocarps. The forest operation is carried out using the ground-based harvesting system with tractor combined with log fisher in accordance with the Reduced Impact Logging (RIL).

ANNUAL ALLOWABLE CUT (AAC)

Based on the approved GP, the total operable area is 43,632 ha with 20 annual coupes. The mean Annual Operable Area (Annual Coupe) for harvesting is 2,182 ha. The Annual Allowable Cut (AAC) is determined by the FORMIND Growth and Yield Model. FORMIND Report which is prepared by FDS shows the AAC to be around 42,370 m³ per annum. Presently, a Monthly Production Limit (MPL) is imposed.

FMP REVIEW AND MONITORING

The FMP will be reviewed on the 5th year as required during the course of implementation. The amendment/revision of the FMP shall include the research and data collection from the monitoring indicators. The results and findings of the monitoring activities shall be incorporated into the revised FMP.

FOREST ENGINEERING PLAN

The Forest Engineering Plan for the forest roads and harvesting systems are done in two distinct stages, i.e. the General Harvesting Planning (GP) and Detailed Harvesting Planning (DP)/Road Plan.

After the DP/Road Plan has been approved, the Permit to Enter Coupe (PEC) is issued for preparing the Reduced Impact Logging Plan (RILP) for harvesting blocks.

Once the pre-harvesting activities are done, pre-felling inspection will be carried out by FDS. If no discrepancy is detected, approval under Operation 5 of the PEC for commencement of tree felling in the annual coupe within the blocks is endorsed.

As required under the Forests (Trained Workmen) Rules 2015, the workers in the natural forest operation who are engaged in these works, i.e. tree felling, log extraction or log loading must be trained by STA Training Sdn. Bhd.

Harvesting of the coupe under the current year is carried out based on four (4) quarterly endorsements with equal number of blocks for each endorsement wherever possible. A Coupe Clearance Certificate is issued to declare a coupe as closed upon the completion of harvesting in all the blocks in a coupe.

CHAIN OF CUSTODY (CoC)

which is submitted to One-Stop Compliance Centre (OSCC) where the FTL holder apply for royalty assessment using the Log Specification Form (LSF). When royalty has been assessed at the approved Place of Royalty Marking (PoRM), the Removal Pass-Royalty (RPR) is issued which serves as the legal permit to transport logs from the PoRM to the Collection and Distribution Centre (CDC) at the log pond. Before delivery of logs from the CDC to the Mill or Export Point, the logs are inspected by Hardwood Timber Sdn. Bhd. before the issuance of the Endorsement Clearance Certificate (ECC). Transportation of logs is accompanied with the Removal Pass-Transit (RPT), the associated LSF (Transit) along with a shipping pass or land transport pass.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

The EIA Report for the re-entry logging under Damai Cove Resorts Sdn. Bhd. (FTL No. T/9089) was approved by Natural Resources and Environment Board (NREB) on 13th March 2009. The Environmental Monitoring Report (EMR) has been submitted to NREB since the approval date of the EIA Report. Monitoring is done on a quarterly basis (once every 3 months) as and when the timber harvesting activities begin in the relevant coupe. The monitoring is to continue until the coupe is closed. Water-quality monitoring is carried out at twelve (12) water monitoring points. ([Right click here to access Map B - Water Monitoring Points](#)).

PERMANENT SAMPLE PLOTS (PSPs)

The FMU has initially established five (5) Permanent Sample Plots (PSPs) and plan to add two (2) PSPs every year concurrently with the harvesting coupe. The PSPs shall be re-measured every 2-years interval. The preliminary analysis and results of the 5 PSPs show the dominance of the Non-Dipterocarps (70%) over the Dipterocarps (30%) due to past harvesting preference of the Dipterocarps. It is noticeable that the Non-Dipterocarps and the Dipterocarps are evenly represented in the DBH Class (>30 cm). Nevertheless, it can be assumed that the future tree crop would be dominated by the Non-Dipterocarps.

SILVICULTURE

Silviculture management of the production forest aims primarily to sustain its productivity. The need for silvicultural treatment, i.e. Enrichment Planting (EP) in an individual block is evaluated through diagnostic sampling of residual forests after harvesting. It is envisaged that EP can improve the long-term sustainability of timber production.

In compliance with DF Circular No 2/2019, a tree nursery has been proposed to kick-start the Forest Landscape Restoration (FLR) Program together with a proposed site for restoration and the nursery practices.

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 provisions of more natural habitats in which wildlife continue to live. The principal Ordinance relevant to the protection, management and conservation of species of wildlife in Sarawak is the Wild Life Protection Ordinance 1998.

Control of hunting is monitored by Sarawak Forestry Corporation (SFC). Additional measures are the responsibility of the FMU holder, in line with SFC Circular No. 2/2021 dated 21 April 2021.

The Honorary Wild Life Ranger Program was introduced in 1990 under the WLPO. The program was created to be complementary effort in curbing the illegal activities punishable under WLPO and also to involve the local communities in wildlife conservation.

HIGH CONSERVATION VALUE (HCV) ASSESSMENT

The HCV assessment was carried out and the findings showed the presence of all category except HCV1.1 (Protected Areas). The HCVs which are present include HCV 1.2 (Rare, Threatened and Endangered [RTE] Species), HCV 1.3 (Endemic Species), HCV 1.4 (Critical Temporal Use [CTU]), HCV 2 (Landscape-Level Ecosystem and Mosaics), HCV 3 (Ecosystem and Habitats), HCV 4.1 (Watershed Protection), HCV 4.2 (Erosion Control), HCV 4.3 (Barriers to Destructive Fires), HCV 5 (Basic Needs of Local Communities) and HCV 6 (Cultural Identity of Local Communities).

Under HCV 4,1 (Watershed Protection), water catchment areas are demarcated for Ba Abang, Long Tebangan, Long Tap, Long Selatong Ulu and Long Selatong. ([Right click here to access Map C – HCV 4.1: Ecosystem Services](#)).

The cultural identity of the local communities (HCV 6) is represented their burial sites, both old and new. ([Right click here to access Map D – Burial Sites](#)).

The measures for the management and monitoring of HCV are recommended for the respective HCV. A management team will have the full responsibility for the HCV management and monitoring.

COMMUNITY REPRESENTATION

The representation of local community in the forest management certification is supported and endorsed by the formation of the Community Representative Committee (CRC). The CRC is a frame-work to handle conflict arising from the disputes over resource utilization

The Forest Management Certification Liaison Committee (FMCLC) is a consultative frame work involving multi-stakeholder representatives which is entrusted to ensure the effective implementation of the forest management certification in the FMU.

SOCIAL IMPACT ASSESSMENT (SIA)

A Social Impact Assessment (SIA) was conducted and completed by April 2021. Six (6) of the local communities are the Penan settlements, three (3) are the Kayan and four (4) are the Kenyah. Among the settlements, seven (9) are within the FMU and four (4) is adjacent to the FMU. ([Right click here to access Map E - Locality Map of Local Communities](#))

The socio-economic profile of the local communities comprises more male (67%) than female (33%) with the age group evenly distributed of 10-years gap from <25, 25-34, 35-44, 45-54, 55-64 to 65-75 years old. Most of the villagers are farmers and hunter-gatherers with low income (< RM 1,000 per month). The majority of the communities are Christians belonging to either Roman Catholic Church or Borneo Evangelical Church (*Sidang Injil Borneo* or *SIB*). Among the Penan, there is still a small group who still practice animism.

Most of the villages have common facilities such as community hall and worship place. There is mobile communication facility in some villages but majority have solar panels for power supply under the Alternative Rural Electrification Scheme (SARES).

There is rural road connectivity provided by the feeder roads to the main logging road. The conservation forest includes the water catchment areas for the community to provide subsistence and gravity-feed water supply. The cultural landscape includes six (6) known burial sites and three (3) burial sites no longer used.

The dependency of the villagers on the forest resources is very high as evident by the economic activities such as fishing, hunting and collecting forest produce.

OCCUPATIONAL SAFETY AND HEALTH

In the conduct of forestry operations, the compliance with the Occupational Safety and Health Act 1994 and relevant regulations and guidelines are applied to the respective work places. The camp management will play an active part in the Safety and Health Committee which has functions specified in the Act. The DOSH's Guidelines for Occupational Safety and Health in the Logging Industry is used as the basis to develop the Safety Practice Guidelines for better prevention of injury and health problems in harvesting operations.

CLIMATE CHANGE

Forest management is affected by climate change policies made at the national and global levels. Under the Malaysian Timber Certification Scheme (MC&I SFM 1/2020), forest management shall comply with the National Policy on Climate Change, 2002 and the UN Framework Convention on Climate Change, 1992 by adapting with the appropriate mitigation and monitoring actions. SFM practices can help reduce the economic, social and environmental vulnerability of forest and forest-dependent people to climate.

A Fire Management Plan is to ensure fire preparedness by the FMU in the event of high fire danger due to climate change.

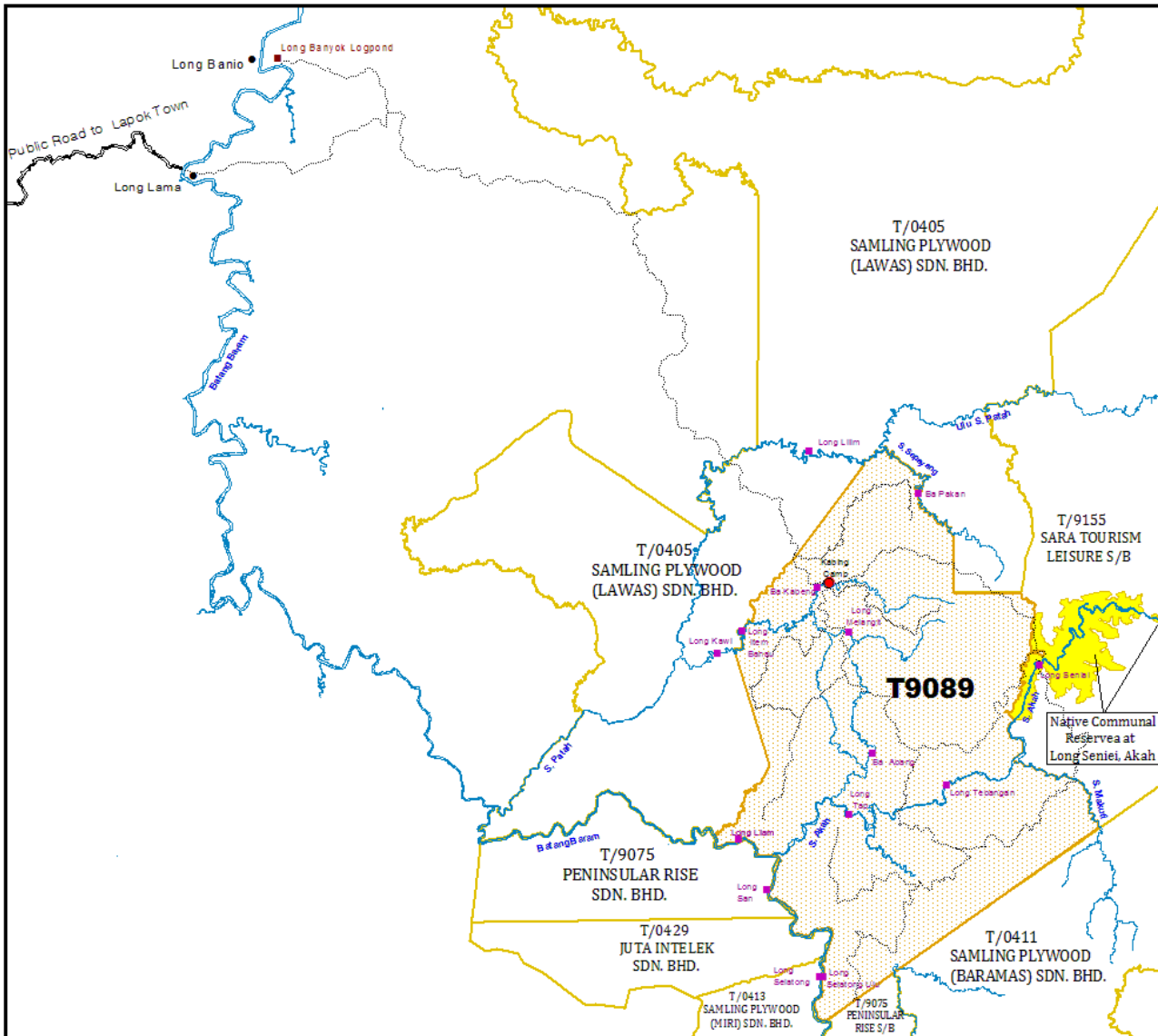
INTERNAL AUDIT AND MANAGEMENT REVIEW

Forest management activities are subject to internal audit and management review at planned intervals as required under the MC&I SFM which is to ensure continual improvement in the management system.

BUDGET ALLOCATION

The budget is proposed for a short-term (5-years) period as the FMP is scheduled for review in the fifth (5th) year. The allocation of the budget shall focus mainly on the pre-harvesting and harvesting forest operations. Additional expenses for forest management certification activities and the maintenance cost of the continual certification are provided for in the budget.

FEBRUARY 2023



FMU Name: **AKAH PATAH FMU**

FTL Name: **DAMAI COVE RESORTS S/B**







FTL No.: **T/9089**

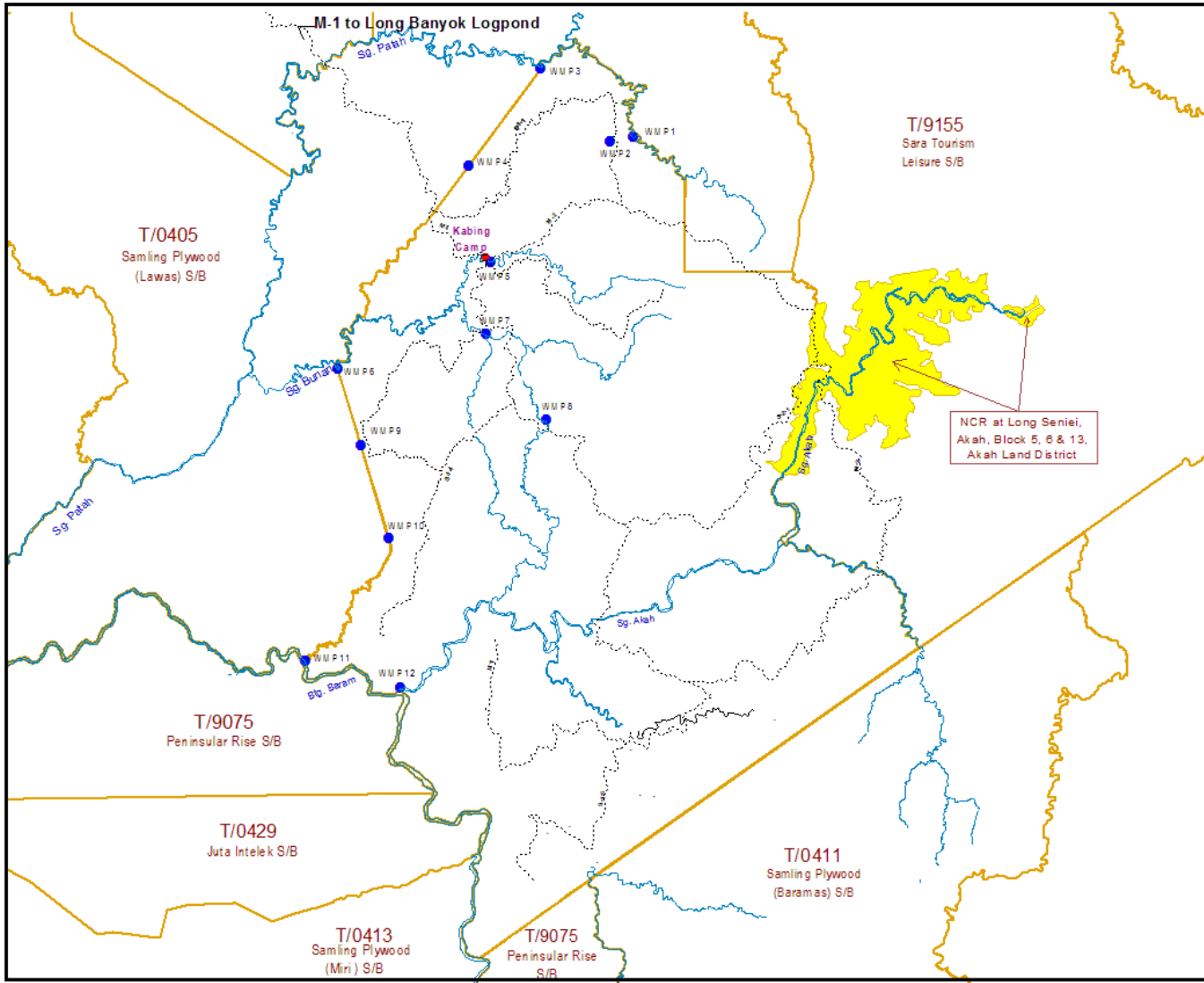
LOCALITY OF AKAH PATAH FMU



Scale 1 : 325,000

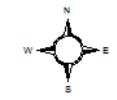
LEGEND

-  Akah Patah FMU
-  Licence / FMU Boundary
-  Existing Road
-  Public Road
-  Villages
-  Camp



FMU Name: AKAH PATAH FMU
FTL Name: DAMAI COVE RESORTS S/B
FTL No.: T/9089

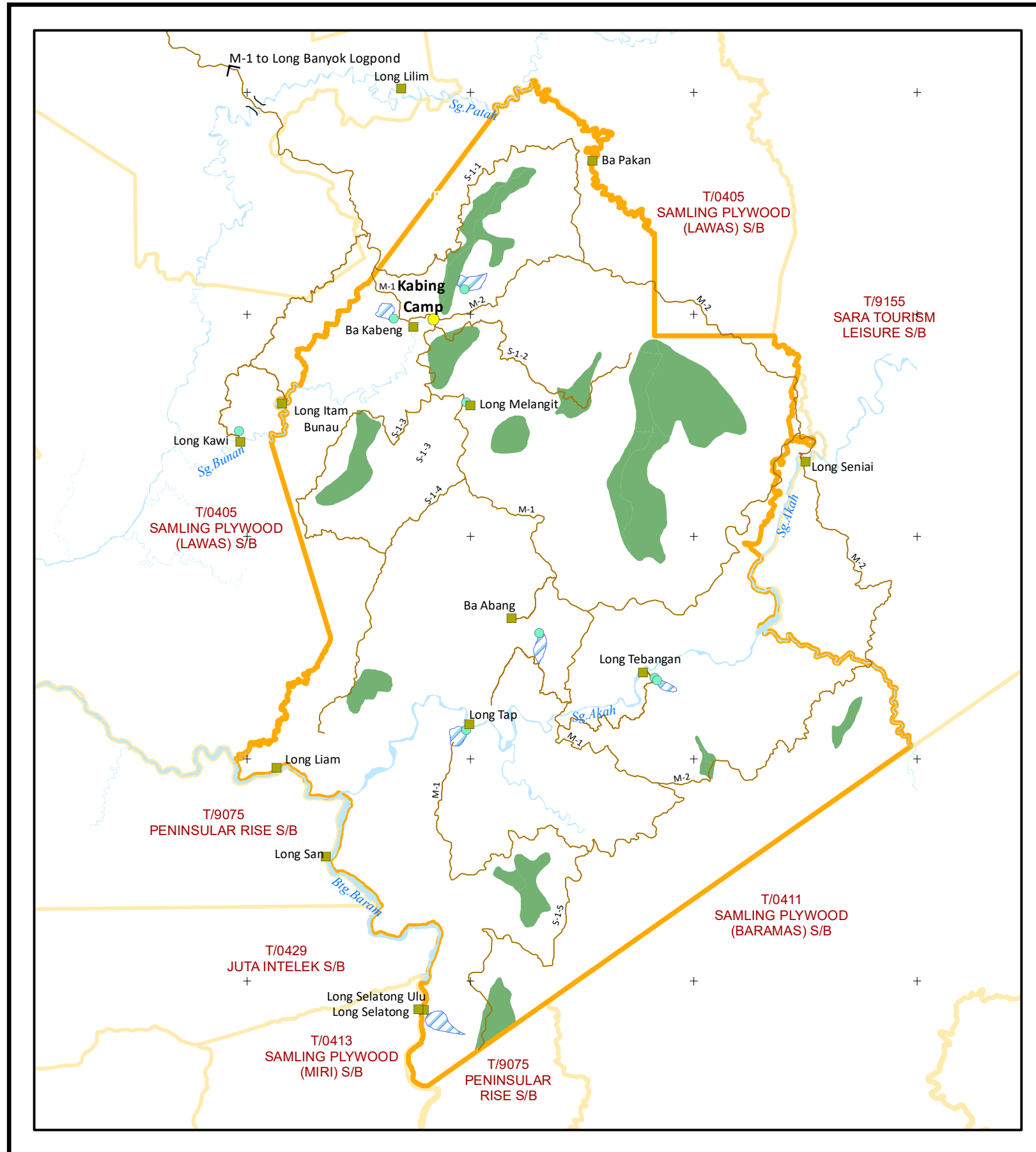
PROPOSED WATER MONITORING POINT



Scale 1 : 200,000

Legend

- Licence / FMU Boundary
- Existing Road
- River
- Proposed Water Monitoring Point (WMP)
- Camp



FMU Name: AKAH PATAH FMU

FTL Name: DAMAI COVE RESORT S/B

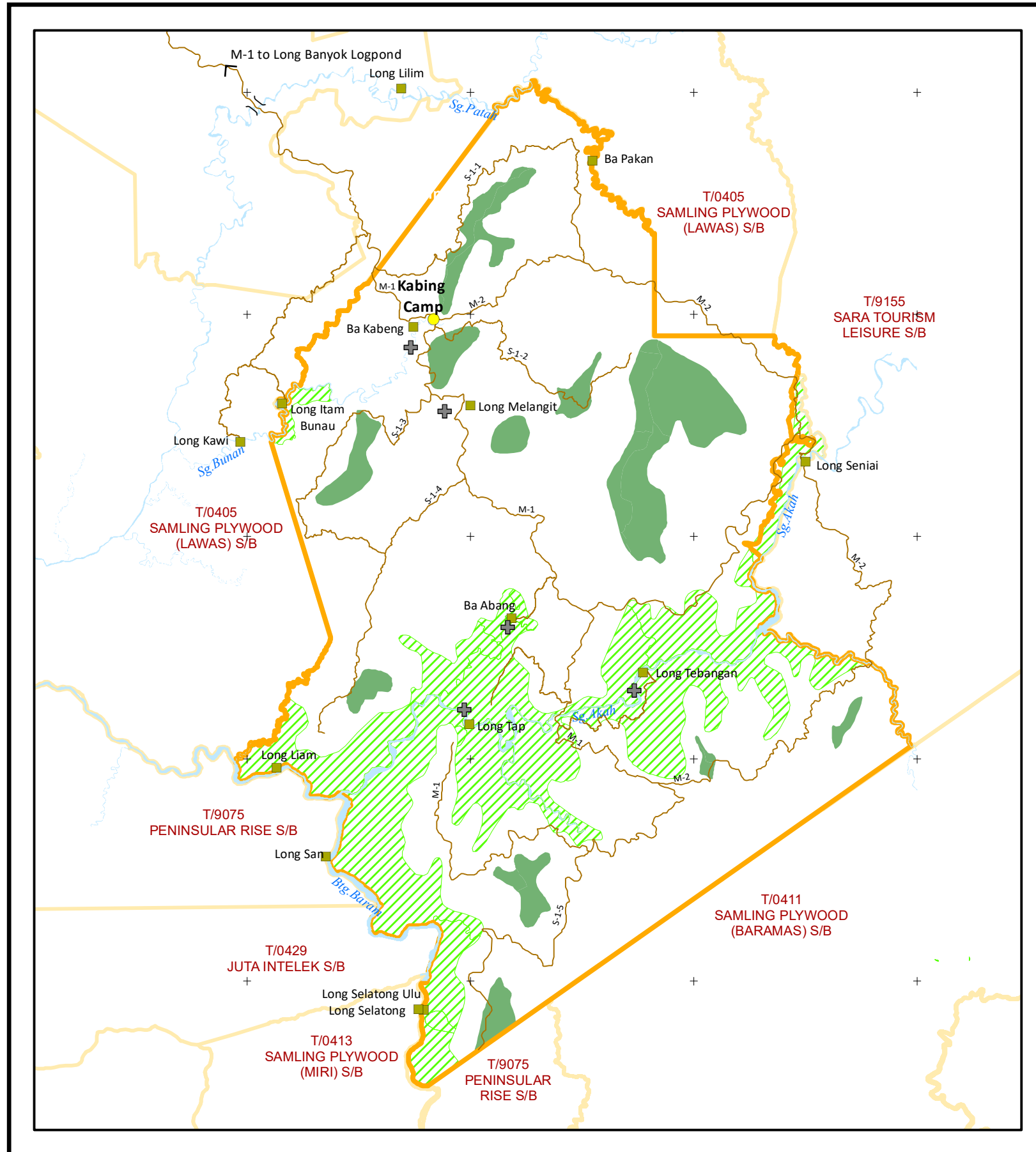
FTL No: T/9089

**HCV 4.1:
Ecosystem Services**

SCALE 1 : 200,000

LEGEND

- Licence/FMU Boundary
- Existing Road
- Villages
- Camp
- Gravity Fed Dam
- Water Catchment
- Terrain IV Area



FMU Name: AKAH PATAH FMU

FTL Name: DAMAI COVE RESORT S/B








FTL No: T/9089

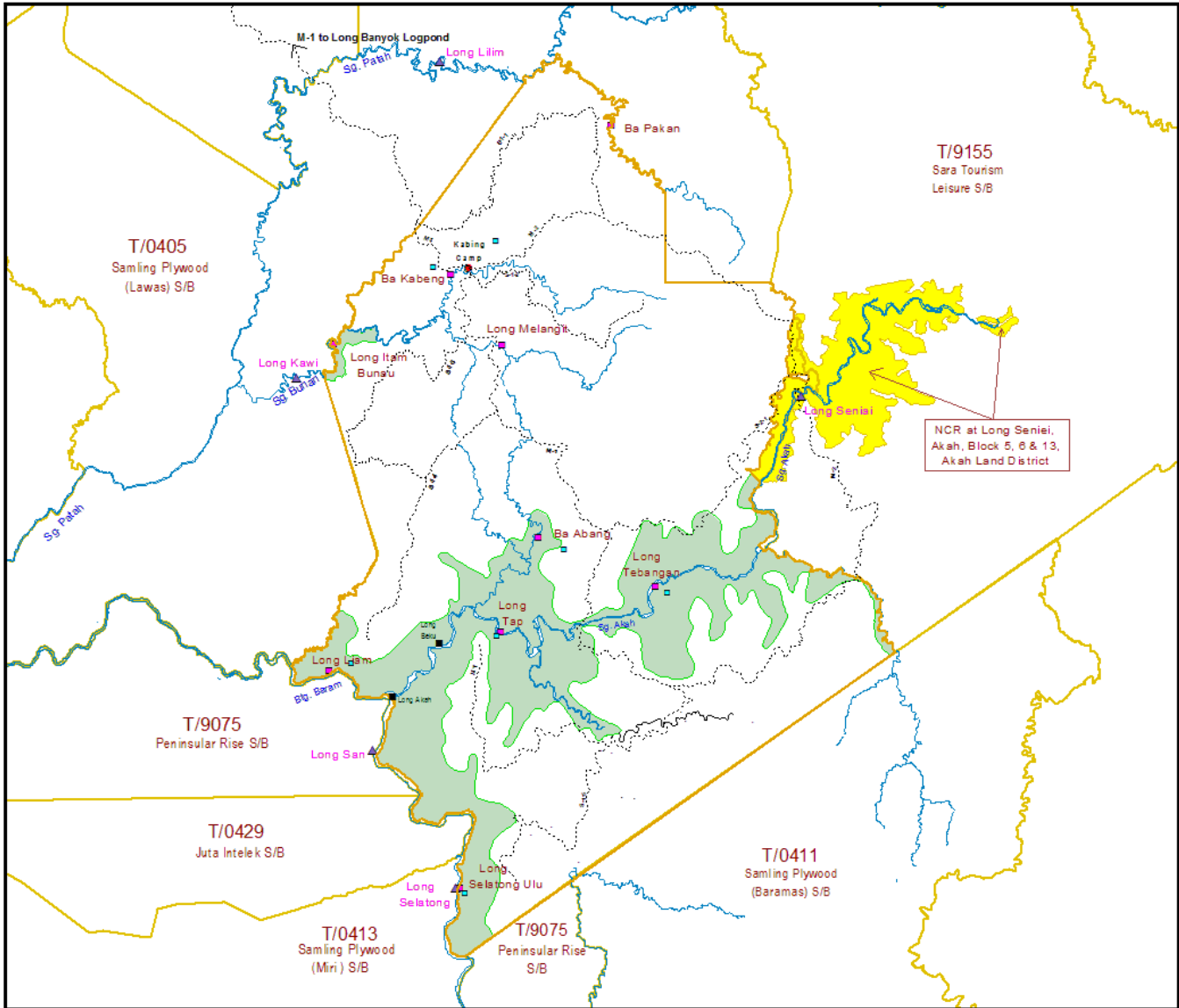
**HCV 6:
Burial Sites**

N
W E
S

SCALE 1 : 200,000

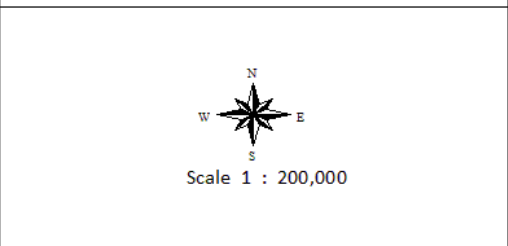
LEGEND

-  Licence/FMU Boundary
-  Existing Road
-  Villages
-  Camp
-  Burial Sites
-  Shifting Agriculture
-  Terrain IV Area



FMU Name: **AKAH PATAH FMU**
 FTL Name: **DAMAI COVE RESORTS S/B**
 FTL No.: **T/9089**

The Locality of Local Communities



- Legend**
- Licence / FMU Boundary
 - Existing Road
 - SA Area
 - Dam
 - Villages (Within Akah Patah FMU)
 - Villages (Adjacent Akah Patah FMU)
 - Villages (Abandoned - Lg. Akah & Lg. Beku)
 - Camp
 - River