

PERMANENT SAMPLE PLOT WITHIN PIN SUPU FOREST RESERVE PLANTED PLOT IN 2016

1.0 Background

Kopel Bhd had started planting numerous species at Kaboi Lake in 2006. The planting has been seen as quite successful. The cooperative under the Nahiya Project has established long-term ecological research plots or permanent sample plots (PSP) primarily to monitor the health of the planting site. The measurement of the trees was conducted in 2016. Annual increment is targeted thus the second measurement is scheduled to be executed next year. The activity would be continuously conducted to determine the valuable information on the changes of growth, mortality, regenerations and dynamics of the sampled forest. This information on forest changes is an indicator of forest health and functionality.

2.0 Plot layout

The permanent sample plot layout consists of a 50 m x 50 m, with 4 sub-plots of 25 m x 25 m each (Figure 1). Fishing rope type material was used to mark out the boundaries of the PSP. All the trees within the PSP were also marked - either by an aluminum tag or with spray paint if too small. The trees were tagged in rows. Only trees that had a DBH of 5cm or greater were measured.

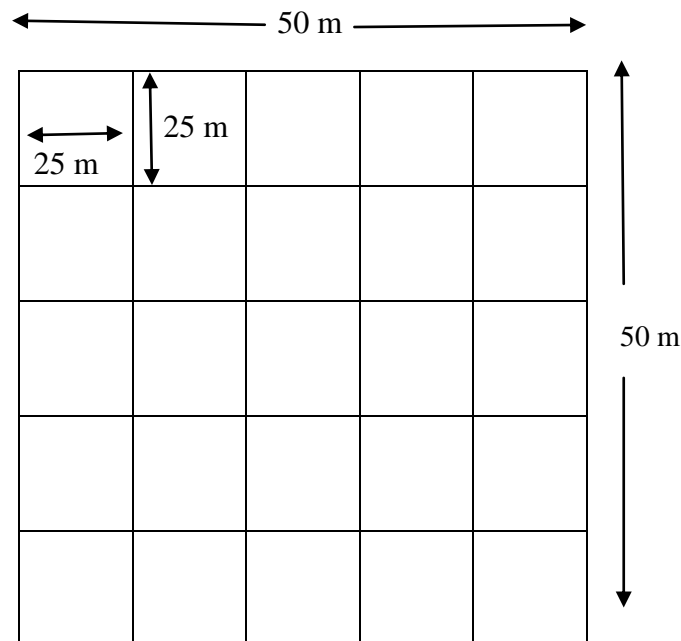


Figure 1. Diagram shows the PSP plot layout of 50 m x 50

3.0 Maintenance of Permanent Sample Plots

Maintenance of permanent plots consisted of activities as follows:

- i. determining the presence of the plot and tree labels and
- ii. Disturbance to the vegetation within the plot, including look out for severe damage to the plot, and investigate its caused.

The maintenance is required periodically to ensure relocation; re-establishment and re-measurements of the trees could be done accurately. The maintenance should be carried annually. Table 1 indicated the location of the PSP which was established in April 2015.

4.0 Measurement of Permanent Sample Plot

Measurement is to be conducted annually started in 2016. Table 2 showed the diameter class distribution of the PSP in KP02 which was measured in 2016.

Table 1. The location of the Permanent Sample Plot was established in April 2015 of Pin Supu Forest Reserve.

Block	Plot	Lat	Long	Altitude (m)	Forest Condition
A	KP02	5.41391	117.98571	31	Regenerating/advance growth mixed planted species

Table 2. Diameter distribution of tree species Permanent Sample Plot (KP02) Planted in 2006 & Measured in 2016

Species	Diameter Class Distribution (cm)								Total
	10 -19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	≥ 80	
<i>Colona serratifolia</i>	3,212.3	10,257.0	7,737.0	2,812.9	1,675.9	773.7	73.1		26,541.9
<i>Nauclea orientalis</i>	85.8	504.0	244.7	569.2	107.0	123.4	144.1	86.3	1,864.5
<i>Mitragyna speciosa</i>	373.7	597.7	231.5	125.5					1,328.4
<i>Vitex pinnata</i>	24.8	114.5			50.2				189.5
<i>Molotus moticus</i>	15.9			40.2					56.1
<i>Dillenia bornensis</i>		24.0			56.1				80.1
<i>Octomeles sumatrana</i>		20.5							20.5
<i>Glochidion laevigatum</i>		28.1							28.1
<i>Ardisia sp</i>		43.3							43.3
Total	3,712.5	11,589.1	8,213.2	3,547.8	1,889.2	897.1	217.2	86.3	30,152.5