Placement of temporary plots

Along a baseline at every 50 m intervals plots were laid out, alternatingly to the left and the right of the central line. Baseline 1, representing dry dipterocarp stands contained 18 plots, Baseline 2 (Figure 1), a transition-zone between dry and mixed deciduous forest contained 41 plots and Baseline 3, a mixed deciduous stand, contained 17 plots.

![Outline of temporary plot design, representing Baseline 2](image)

**Figure 1: Outline of temporary plot design, representing Baseline 2**

Sampling of the temporary plots consisted of three nested sub-plots (Figure 2). Sub-plots for sampling trees larger than 5 cm DBH were circular, with a radius of 15 m (706 m²).

Plot size for this assessment was determined on the basis of previous works (SUKWONG, 1974; KUTINTARA, 1975; BUNYAVECHEWIN, 1983, 1985, 1986) and preliminary works (abundance estimates, species area curves) to ensure a minimum of about 30 tree ≥ 5 cm DBH in each sample.

- In each 15 m radius plot, all trees and woody climbers larger than 5 cm DBH were identified, DBH and crown intersection recorded and its social position via crown assessment (after Dawkins, 1958) defined. Social position was based on values from 1 to 5, mainly indicating access to light of tree crowns. For details on classification see LAMPRECHT (1990). The height of every fifth tree was measured.

![Image of sampling design](image)

Samples of unknown species were taken and treated for later identification. Diameters were measured at breast height to the nearest millimetre (1.30 m above ground) with a diameter tape.
DBH of trees and shrubs forked below 1.30 m height were recorded for each stem and later summarised into a total basal area. Height was measured to the nearest ½ m with the help of a Suunto height metre. With respect to crown width, four measurements (north, south, east, west, to the nearest ½ m) were taken on the ground from the centre of the tree to the point of vertical crown projection on the ground. Crown intersection was defined as the height of the stem at the onset of the first living branch of the continuous crown. Lower branches were recorded separately.

- Saplings with diameters between 2 and 5 cm DBH were sampled in 10 x 10 (100 m$^2$) sub-plots. In those sapling plots, all trees, shrubs and woody climbers between 2 and 5 cm DBH were identified and their height and DBH recorded.

- Seedlings and other woody plants smaller than 2 cm DBH were identified and enumerated in 5 x 5 m (25 m$^2$) sub-plots.

To avoid damage during sampling, seedlings were sampled first, then saplings and finally trees. Sub-plots were located in the distant (from the central transect line) right-hand quadrant of each plot to minimise damage due to marking plot-centres.

Further information gathered in each individual sample plot included a general site description and information on soil and ground cover.

*Floristic assessment and forest type stratification*

**Introduction**

In the following assessment the main results of the inventory on structure and composition will be presented. By using cluster (CL) and correspondence analysis (CA) the main floristic characteristics of the Mixed Deciduous Forests – MDF – and the Dry Dipterocarp Forests –