

## Development of local volume table for second growth forests using standing tree measurements.

### Abstract

The need to have an accurate measure of tree volume is fundamental in forest management and administration as tree volume is widely used for estimating the productivity of a forest stand, as well as for the assessment of taxes and fines. In moist tropical forest, volume table has been recognized as the best approach to estimate volume especially due to some difficulties in tree measurements. Various research on tree volume estimation have been conducted in Peninsular Malaysia with the purpose of improving planning in the management of forests. In order to construct reliable volume tables, enumeration of a relatively large number of sample trees of various size classes and species or species groups are required. The enumeration of each sample tree requires accurate diameter measurements of several sections of the stem. To obtain such measurements, traditionally the sample trees have been measured either using felled or standing trees and therefore costly and time consuming. Currently, the same level of accurate measurements can be obtained without the need to undertake destructive sampling or direct measurements, such as by climbing trees. This paper highlights the use of digital measurement tool for the measurement of standing trees for the development of volume tables. The benefits and limitations of this digital approach over traditional data collection technique are discussed.

**Keyword:** Forest; Local volume table; Second growth forest.