# Multiple regression models of the volumetric stem biomass

## Abstract

The development of a simple model was presented for obtaining the volumetric stem biomass of a tropical tree species. To model the volumetric stem biomass, Cinnamomum of family Lauracea was chosen. Mensuration data were collected based on two volumetric equations, namely, the Huber's and Newton's equations. During data collection, the variables considered were height of stem or trunk, height of tree, diameter at breast height, diameter at middle and diameter at top of the stem before the crown. Possible variables with their interactions were screened with spearman correlation tests and values greater than 0.95 were selected. The best model was determined using the process of eight selection criteria (8SC). However, the best model was found to be in the form of multiple regressions (MR) up to the fourth order interactions.