

ULU MUDA FOREST RESERVE KEDAH: CULM YIELD AND STAND PRODUCTIONS OF THE NATURAL BAMBOO STAND FROM THE LOGGED AND VIRGIN FOREST

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Abstract - Bamboo is a woody plant belonging to the grass family mostly were found in large amounts in disturbed areas such as logged over forests and along the riverine and fringing of the forests. As the most important non-wood forest product and wood substitute, bamboo is playing a significant role in minimizing timber demand pressure. Other benefits of bamboo are its superb capability to absorb carbon dioxide and produces oxygen. This study, aimed to identify the stocking, species richness, clump distribution, and clump size of the natural regeneration of bamboo in Ulu Muda Forest Reserve. *Gigantochloa scortechinii* is the most common bamboo found, followed by *Schizostachyum grande*, *Dendrocalamus pendulus* and *Bambusa farinacea*, a species found at the higher elevations (>600m asl) of this forest. Bamboo culms was larger in the logged forest compared to the unlogged sites. Buluh Semantan or *G. schorthechinii* is the most dominant species, contributed >70% of the total bamboo culms productions. This species average height and diameter were 12.4 meter and 8.6 cm in the logged forest while 11.6 meter and 7.0 cm from the virgin forest. In terms of weight, total of 8.4 tons/ha of bamboo in the logged forest while the virgin forest stocked 1.5 tons/ha. Due to the culms size differences, the average number of culms to harvest (per tonne) was 83 and 57 from the virgin forests and logged forest, respectively. The species richness, stand density and culms productions of bamboo was higher in the logged forest compared to the virgin forest. The species distribution and stocking data from this study is useful for yield estimation and future silviculture and management strategy of bamboo stands in this area.

Keywords: Non-wood, regeneration, stocking, productions, yield estimation