

# **DEVELOPMENT OF NATIVE SPECIES FOR SUPPORTING DEMAND OF WOOD AND REHABILITATION OF TROPICAL RAIN FOREST AREAS IN KALIMANTAN, INDONESIA**

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Deforestation of tropical forest in Kalimantan rapid during this time is not balance with restoration, rehabilitation and reclamation. Development of Plantation Forest is an alternative for supporting the high demand of wood for industry in Indonesia. Standing growth and stand quality represent indicator to assess successfully of development a Plantation Forest. This Research focused on standing growth and stands quality of Jabon (*Anthocephalus cadamba*), Sungkai (*Peronema canescens*), and Meranti (*Shorea leprosula*) in Central Kalimantan Province which used sampling method with random plot at each age grade of stands. The species of Jabon (*Anthocephalus cadamba*), Sungkai (*Peronema canescens*), and Meranti (*Shorea leprosula*) were focused in this research because these species are native from Kalimantan. The parameter was survival rate of each species, growth of stands, perceives environmental factors (sites) and applied silvicultural practices. Result of research in the form of data processed, analyzed then concluded and suggestion. The survival rate of Jabon, Sungkai, and Meranti at age 13 years were 57.70 %, 89.70 %, and 63,01 %, respectively. Sungkai has the best of survival rate. Mean annual increment (MAI) of volume per hectare for Jabon, Sungkai, and Meranti were 18.89 m<sup>3</sup>, 11.90 m<sup>3</sup>, and 7.92 m<sup>3</sup>, respectively. Volume of Jabon's stand at age 13 years of 245.58 m<sup>3</sup> per hectare was higher than Sungkai of 154.74 m<sup>3</sup> and Meranti of 102.98 m<sup>3</sup> per hectare. However the economic value of sungkai's stand at 13 years of age was higher than Jabon and Meranti. For the better result suggested to increase silvicultural action especially at maintenance phase such as; pruning, thinning and cutting of intruder in order for improving productivity of increment and stand perfection value of Jabon, Sungkai, and Meranti stands. Tree plantation of native species can be beneficial for small-holders and for supporting rehabilitation of tropical rain forest areas in Kalimantan.

**Keywords:** native-species, growth, increment, silviculture