

Restoring Coastal Livelihoods: “Increasing the Resilience of Mangrove-Aquaculture Socio-Ecological Systems in Southeast Asia”, Regional Conference. February 17-20, 2014. CIFOR Campus, Bogor, Indonesia.

## Abstract

### **Unused woody resources in the coastal community, obtained from thinning practices of the rehabilitated mangrove trees in the tropical area**

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Massive areas of mangrove trees have devastated due to prawn culture and illegal loggings in the last few decades. In order to rehabilitate the coastal ecosystems, mangrove plantation has started in the '90s. As we observed in the field, the trees were grown in dense intervals of 1.0-1.5 m as of the initial plantation. Minimal forest management resulted in immature growth of the rehabilitated trees. Such poor quality of the trees might not be able to contribute to the multi-ecological services such as a large number of carbon sequestrations, coastal prevention against high-tide and land erosion, food security and biodiversity. It is essential to control tree numbers along the growth by thinning practice, which would enhance tree growth and rehabilitation of the coastal ecosystems. In the Matang mangrove on the west coast of Peninsular Malaysia, there are centurial mangrove managements in the monoculture concession area (Ong and Gong, 2013) as they product charcoals and poles. Our study examined the thinning practice for the 20 year-old monoculture trees of *Rhizophora mucronata* in Margasari, Lampung province, Indonesia (05°35' S, 105°48' E) in September, 2013. Volumes of the thinned trees were quantified and the economic potentials for charcoal production and poles were evaluated. As the result, volumes of the thinned trees were totally 25.2-65.4 m<sup>3</sup> ha<sup>-1</sup>, depending on degrees of the thinning. It can be considered that they are all unused local resources, which can be obtained from the rehabilitated mangrove areas. Those economic values were around 1.8-5.0 million IDR ha<sup>-1</sup>, when those woods for charcoal production were bought in the price of 80,000 IDR ton<sup>-1</sup> what the local people told us. Those values stimulate local economic activity, but we need to develop a sustainable management system to balance preservation and effective utilization in the local coastal community. (295 words)