



## ***International Conference :***

*New perspectives of tropical forest rehabilitation  
for better forest functions and management*

*Indonesia Managing Higher Education for Relevance and Efficiency  
(I-MHERE)*

# ***Abstracts***

*17<sup>th</sup> - 19<sup>th</sup> October 2011, Faculty of Forestry, Universitas Gadjah Mada,  
Yogyakarta, Indonesia*

## FOREWORD

The degraded forest lands are of concern of rehabilitation programs, as they are usually the centre areas of poverty, natural disaster (flood-drought) and climate change (hot spot of carbon emission). However, fundamental understanding is prerequisite to provide a more generic principle and technology to support successful rehabilitation in different forest types. Likewise, a more contextual approach for the rehabilitation should also adopt the strategy to strengthen the sustainable livelihood and more efficient timber processing at the local community level in order to reduce deforestation and degradation. The international conference on New Paradigm of Tropical Forest Rehabilitation is proposed to strengthen an integrated approach in forest rehabilitation therefore provide ecological landscape safety-net which are economically-viable and therefore could be self-sustaining in reducing pressure to forests.

The conference invites four international speakers in the field of tropical silviculture, tree physiology and ecology from Indonesia, Australia, Finland, Japan and other international partners. Participants are academicians, researchers, practitioners and students. Through the conference, the participants will strengthen an integrated approach and establish new paradigm in managing tropical forest rehabilitation for reducing deforestation and forest degradation.

The objectives of the conference are : 1). identifying the gap and updating the current status of the methods and techniques on tropical forest rehabilitations, and 2). strengthening collaborations with domestic and international partners in developing rehabilitation strategy for sustainable and productive tropical forests.

I wish to acknowledge all our esteemed invited speakers, speakers, and all participants.

Thank You

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## PRODUCTION AND STANDING STOCK RAW MATERIALS PLYWOOD IN THE PROVINCE OF EAST KALIMANTAN

Ismail Rachman Lallang, MP<sup>1</sup>, Akas Pinarangan Sujalu<sup>2</sup> and Akas Yekti Pulihasih<sup>3</sup>

<sup>1</sup> Faculty of Agriculture-PS Forest Management-Univ. of 17<sup>th</sup> of August  
1945 Samarinda; Jl.Ir. H. Juanda 80 Samarinda 75124;

E-mail: ismail.6913@yahoo.co.id

<sup>2</sup> Faculty of Agriculture-PS Forest Management-Univ. of 17<sup>th</sup> of August  
1945 Samarinda; Jl.Ir. H. Juanda 80 Samarinda 75124

E-mail: pinaringan\_b@yahoo.co.id

<sup>3</sup> Doctoral Student of Environment Science Program- Faculty of MIPA-  
Airlangga University, Surabaya

E-mail: akasyekti2009@yahoo.com

### Abstract

This research is aim to examine the wood potential production and its volume which derive from the plantation forest in order to fulfill the needs of raw materials for the plywood industry. Data obtain from the previous collected run through the existing data subject to the direct observation then by using this collected data it is analyzed using the statistical method. The result of this analysis shown that subjection Means Annual Increment (MAI) as for the Parica (*Schizolobium amazonicum*) reached up to 35,72 m<sup>3</sup>ha<sup>-1</sup> in 8 years rotation; Sengon (*Paraserianthes falcataria*) up to 30,60 m<sup>3</sup>ha<sup>-1</sup> in 10 years rotation; Waru (*Hibiscus* sp) about 15,57 m<sup>3</sup>ha<sup>-1</sup> in 17 years rotation; and Dipterocarpa (*Shorea leprosula*) potentially reached up to 8.84 m<sup>3</sup>ha<sup>-1</sup> in 40 years of rotation.

Keywords: Standing Stock, increment

## SANTALUM ALBUM TREE STAND (A NEW PARADIGM)

Simon Taka Nuhamara<sup>1,2</sup>, Haryono Semangun<sup>1,3</sup>

1) Magister Biology Study Program, Satya Wacana Christian  
University, Jln Diponegoro 52- 60 Salatiga, Indonesia  
Email: nuhamarataka@gmail.com, hsemangun@yahoo.com

### Abstract

*Santalum album* commonly known as sandalwood tree species is one among the luxurious trees in Indonesia besides *Dalbergia latifolia*, *Diospyros celebica* and others. For more than hundreds years, the tree species was perceived mostly by its invaluable woods in terms of perfume product, cultural practices and carving. That is for such kind of benefit, this wood is highly demanded by people in the world like Chinese, Indian, Arabian and many others. Consequently, this tree species is threatened to extinct, because all part of the wood is extracted. The hemi parasitic nature of the tree species besides the problem it makes for its silviculture, it is in this view be considered as a challenging opportunities for enriching biodiversity. Many annual economic plants are known to be associated with this sandalwood tree such as *Capsicum annuum* and also many legume trees such as *D. latifolia*, *Pongamia pinnata*, *Cathormium umbelatum*, *Pterocarpus indicus*, *Acacia trachiacarpa* and of Meliaceae such as *Khaya senegalensis* and *Cedrela odorata*. In this day of climatic change, people could benefit from this tree species not only from its invaluable wood as mentioned before, but also at the time when the tree is still living or standing in the forest, the tree species and its associates are also contributing significant invaluable ecological and or environmental benefit. The problem now is how to develop a design as a model for the people living in East Nusa Tenggara, the natural habitat of the sandalwood tree species which could benefit both economically as well as healthy environmental stability.

Keywords: *Santalum album*, silviculture