

# Current conditions of mangrove afforestation in Indonesia & the arranged methodology to estimate CO<sub>2</sub> fixation



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The workshop on identification of constraints in application of approved A/R CDM methodologies. Bonn, Germany. May 12, 2011.



**“Forest existed before the civilization,  
after that only desert left.”**

Francois-Rene' de Chateaubriand (a French writer, 19th century)



Mangrove trees we planted in [the project site](#) in Indonesia

COP13 in Bali, Indonesia, 2007.



*Rhizophora mucronata* trees that we planted in Indonesia



Direct planting of the mangrove propagules in the site by local people.



Mangrove plantation for rehabilitation of the prawn culture pond.



# Our company's mangrove afforestation project

## Project described in the PDD

520,000 trees (115 ha, 4,500 trees/ha)

Indigenous species (*Rhizophora mucronata* & *R. apiculata*)



In 30 years of the project about 0.1 million tons CO<sub>2</sub> to be absorbed.

Even currently, the stands absorb and contribute to sequester of CO<sub>2</sub> from the atmosphere.

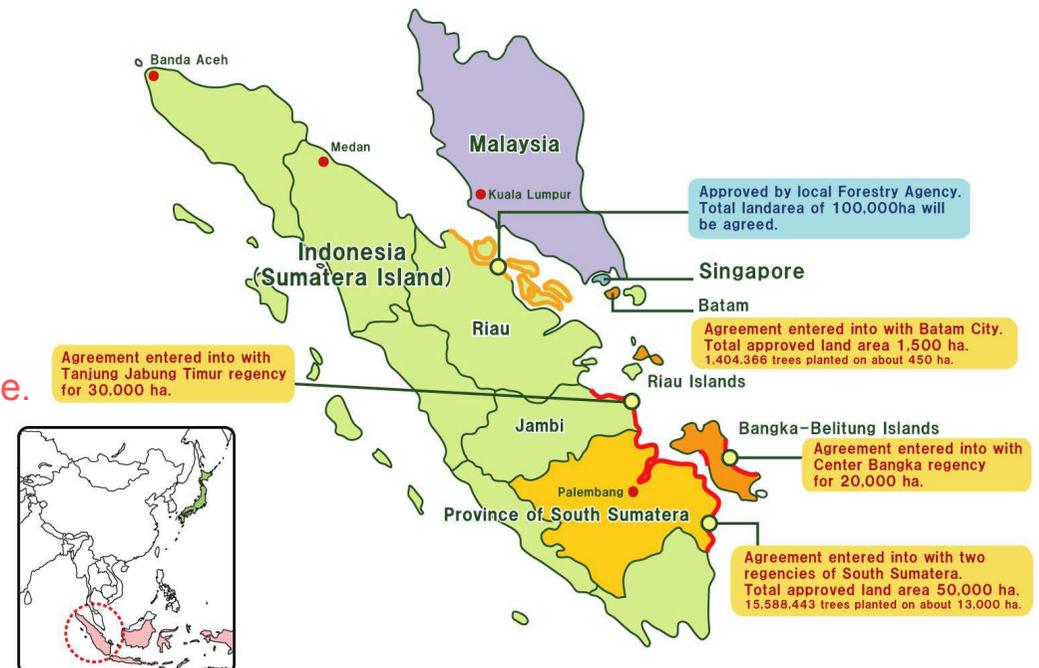
## Our company's project in Indonesia

A total of 0.1 million ha was allocated based on MoUs (Memorandum of understanding) with local government for the land use free of charge.

So far, 17 millions trees have been planted.

### Status & Plan of Forestation

YL invest Co., Ltd.



## The current state of the PDD project

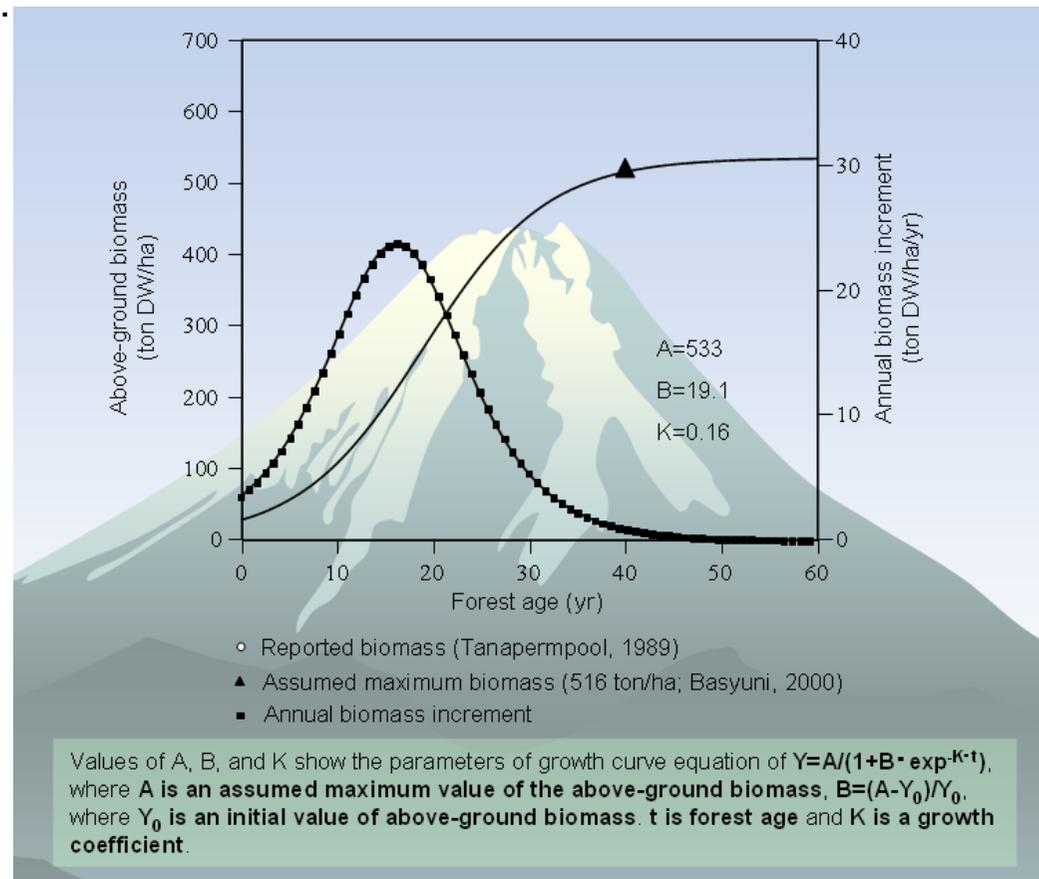
- Our PDD opened in the UNFCCC website for the public comments (April-May, 2010)  
However, our project has not been approved yet.
- In Indonesia,  
Decree of “forest definition” by Minister of Forestry for A/R CDM is ready.  
⇒ this “forest definition” has not yet been approved by the UNFCCC
- LoA (Letter of Approval) of the Indonesia DNA has not been issued yet.  
⇒ this was the reason for the delay in applying to UNFCCC.
- Barriers on the A/R CDM create delays in the implementation of the project.

# Arranged methodology to estimate CO<sub>2</sub> fixation

- In regards to mangrove trees, allometric methods are officially approved.  
(AR-AMS0003)

However, there is a short supply of DBH (diameter at breast height) data from mangrove trees.

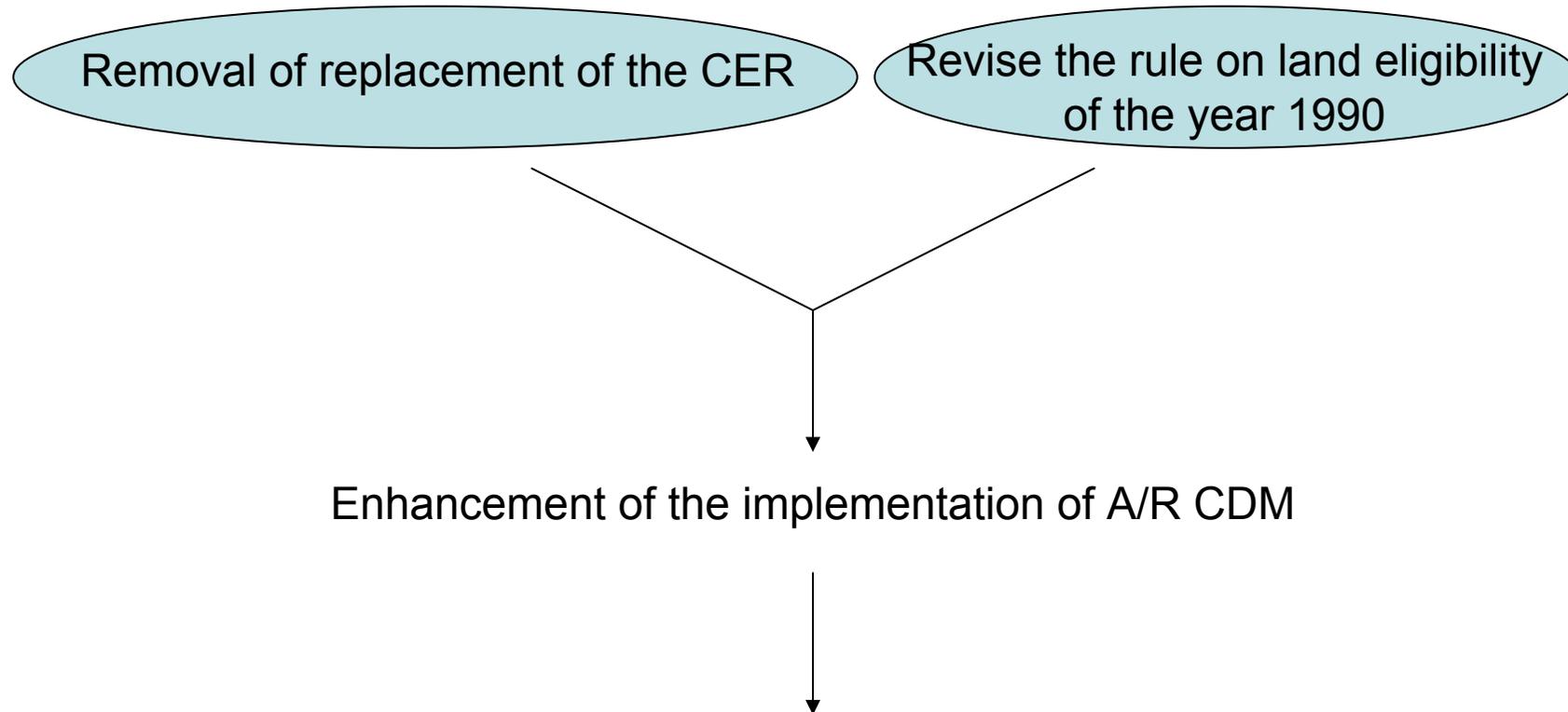
- the allometric method is difficult to apply.
- a growth curve was used for the arrangement to predict the DBH growth as time passes.



## Suggestions: promote the giving of incentives for plantations

- **Small scale A/R CDM** • • • except plantation, are costly, make no business sense  
local activity, PDD documentation, DOE contract etc. (total 0.2 million US dollars)
- **Cost-benefit performance with large-scale A/R CDM**  
remaining barriers such as baseline setting, measurement of leakage.  
⇒ Simplify the methodology.
- **Giving incentives for valuable action of the plantation**  
we do support buffers of CER in VER (Verified Emission Reduction) system.  
e.g.) 80% of the CER, issued after the verification.
- **Evaluate intangible and environmental value of the forest**  
⇒ watershed protection forest, symbiosis with human beings, bio-diversity etc.  
Loss of bio-diversity all over the world, up to “4.5 trillion USD/year”  
(TEEB report: the economics of ecosystems and biodiversity, UNEP)
- **Giving incentives to holders of mountain forests**  
the Intangible effect is worth more than the tangible effect.  
(e.g. arrangement of tax system)

## Opinions



**Stop deforestation as much as we can !!**

“When you cut a single tree,  
plant 1,000 trees  
for the compensation”

(Once upon a time in Japan)



“One tree-cut is  
someone beheaded.”

Woodland for fish breeding is essential for  
protecting the lives of people dependent on  
the fishery



We are looking forward to having any support and partners to implement the mangrove plantation project together.



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