

# We are customers' first choice

## **Stora Enso's Perspectives on Future Plantations in China**

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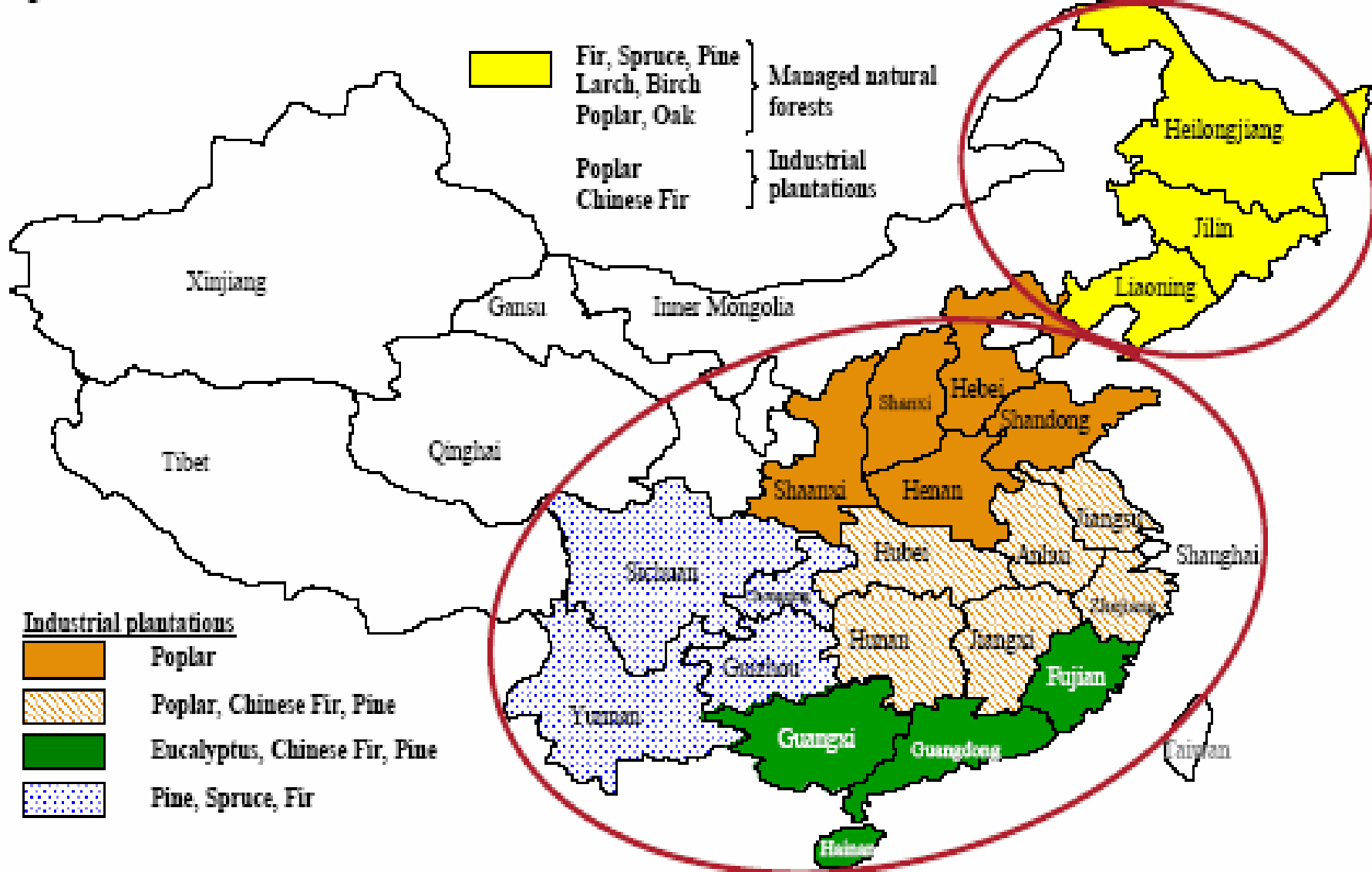
President, Guangxi Stora Enso

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# Current plantations in China

- 24 mill ha of industrial plantations
- 5 mill ha of fast-growing high-yielding industrial plantations
  - No fibre available for new capacity
  - mainly eucalypts and poplars
  - central and south China
- Productivity fairly low

# Major wood resources in China



## More plantations are needed in southern China to meet industrial needs

- Newly started, Approved and planned pulp mills:
  - APP Hainan (yearly need 4.5 million m<sup>3</sup>, own wood today 1.5 million m<sup>3</sup>)
  - Zhanjiang/Chenming pulp mill (yearly need 2.8 million m<sup>3</sup>, own wood 1.0 million m<sup>3</sup>)
  - Oji Nantong, APRIL-Rizhao totally need ~ 7 million m<sup>3</sup>
- Increased local production of MDF, and particleboard mills
- Wood chips export to Japan continues

# Major bottlenecks of developing plantations in China (1)

- Wood prices in Guangxi 2002-06
    - Sharp increase of wood prices
      - 2002, 28-30 USD/m<sup>3</sup>
      - 2006, 45-52 USD/m<sup>3</sup>,
    - Industry that is based on market fibre very risky
    - Tree farming impossible with these prices
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Need to establish own fibre base



# Major bottlenecks of developing plantations in China (2)

- Land availability
  - Flat vs. undulating land, coastal areas
  - Ownership structure
    - Over 70% of the forest land in Southern China is owned by collective villages
      - Small unit size → big amount of collectives needed → lengthy process to acquire enough land for pulp industry;
      - Social issues
    - State-owned forest farms
      - Over loaded by staffs: existing and on-pension
      - Unclear asset profile;

# Major bottlenecks of developing plantations in China (3)

- Climate
  - Limited amount of area in southern China suitable for eucalypts;
  - Poplars, pines and others in central and northern parts, inland provinces
- Politics
  - Government support is absolutely needed
  - Different agenda between government and company
    - Land first vs. industry investment first

# Technical challenges of developing plantations in China

- Labor availability
  - Cost increases sharply
  - Migrant workers: highly mobile;
  - Timing of labor;
  - Lack of skills: training and monitoring needed;
- Human resources
  - Lack of language skills;
  - Lack of modern plantation management expertise;
  - Lack of harvesting expertise;
- Mechanization of wood harvesting
  - Introduction of tailor-made mechanized / semi-mechanized harvesting systems in Guangxi
- Development of current regulations and practices
  - transportation
  - Wood measurement



# Concluding remarks

- Fibre resources will be limited
  - control of cost level and security of fibre supply essential
- South China will be the focus of future development
  - plantation development should be based on own fibre
  - future development can take place via co-operation with farms after restructuring
- Training will be one of the key elements
- Introduction of modern concepts