

Wilton Park Conference 21-23 November 2006
"Forestry: A Sectoral Response to Climate Change"



Global Forest Sector: Trends, Threats and Opportunities

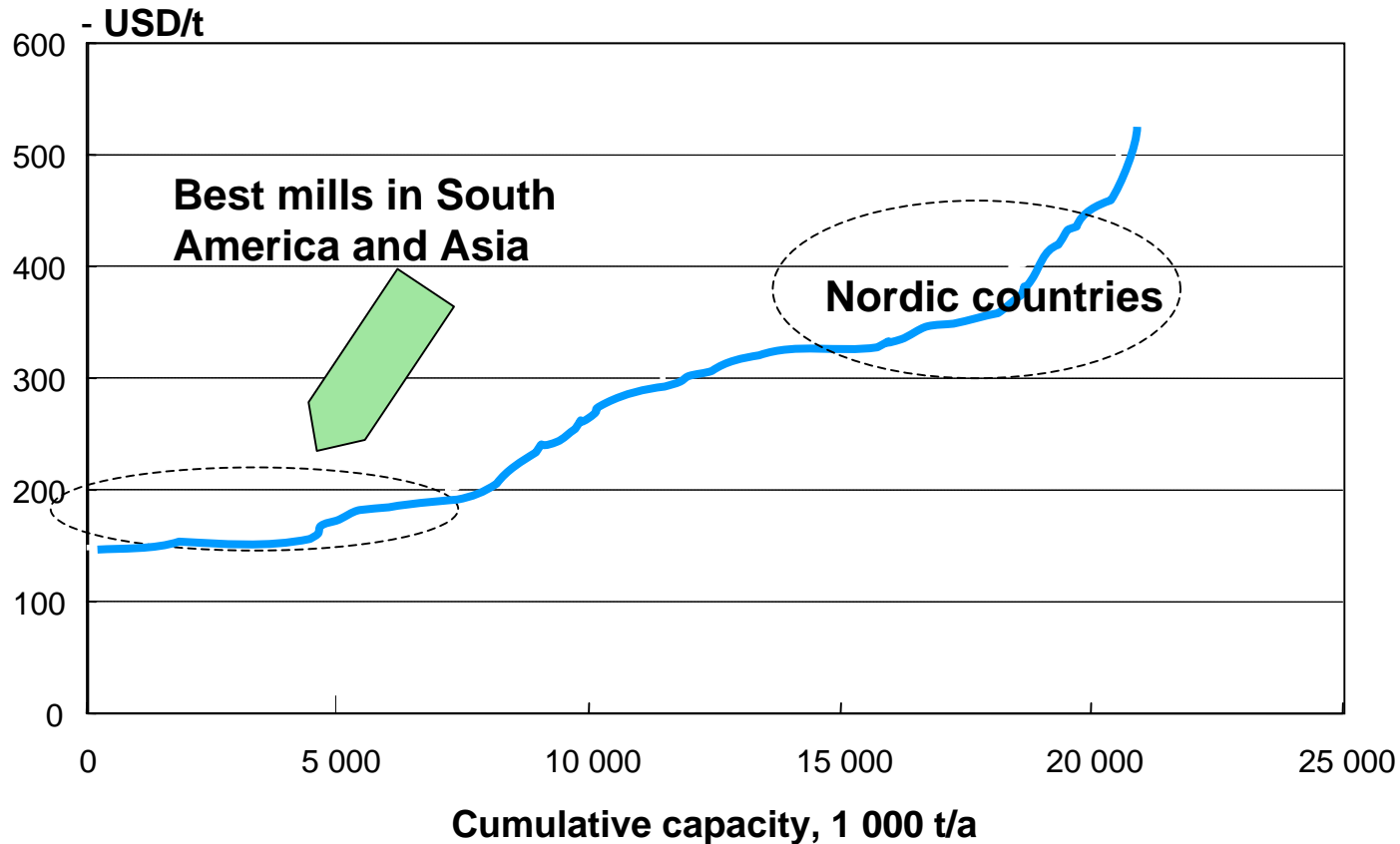
Prof. Risto Seppälä
Finnish Forest Research Institute



Trends in the forest sector

- Globalization is the most important driver
 - comparative advantages of different regions and countries have become more and more important in determining the location of timber growing and the forest industry

Production costs of hardwood pulp



Source: Rainer Häggblom, Jaakko Pöyry, 28.4.2006



Trends in timber production

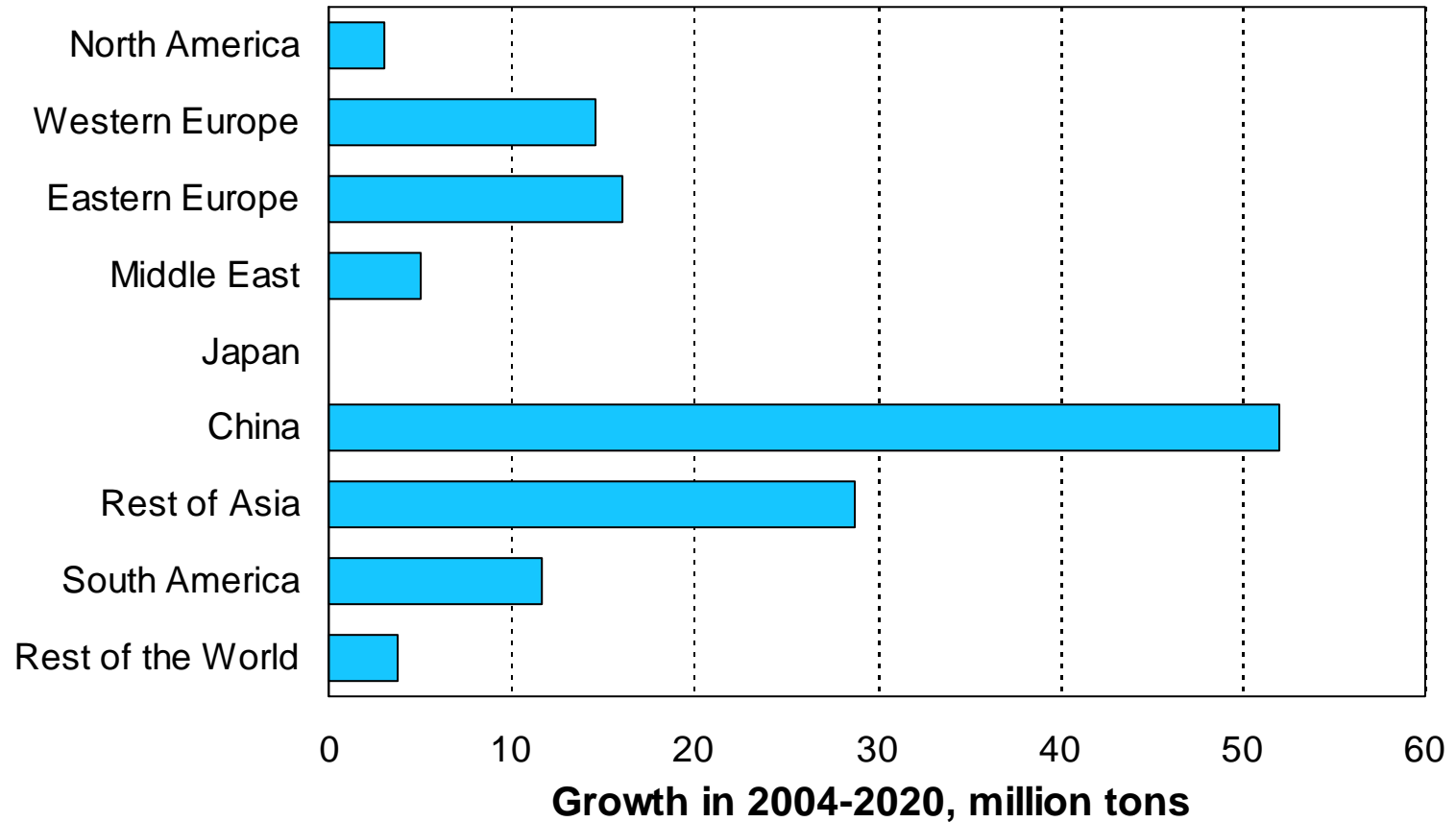
- shift of timber production from North to South and East
- shift of timber production from developed countries to developing countries & countries in transition
- shift of industrial timber production from natural forests to plantations (5% from plantations in 1960, 30% in 2005, 75% by 2050)



Trends in forest products demand and production

- growth rate of global demand for current forest products decreases
- shift in the growth of the consumption from W. Europe and N. America to Asia, Russia and E. Europe
- shift of forest industry production from North to East and South - close to growing markets

Growth of paper and board production in 2004-2020



Source: Jaakko Pöyry 2005



Global trends: conclusion

Shifts in timber production, consumption of forest products and forest industry production to new regions mean that the current leading forest sector countries (OECD countries) have to find new products and new business opportunities in order to survive.

Forest industry CEOs: "Forest industry is undergoing comprehensive and far-reaching change - the industry must redefine the game".



Threats: deforestation

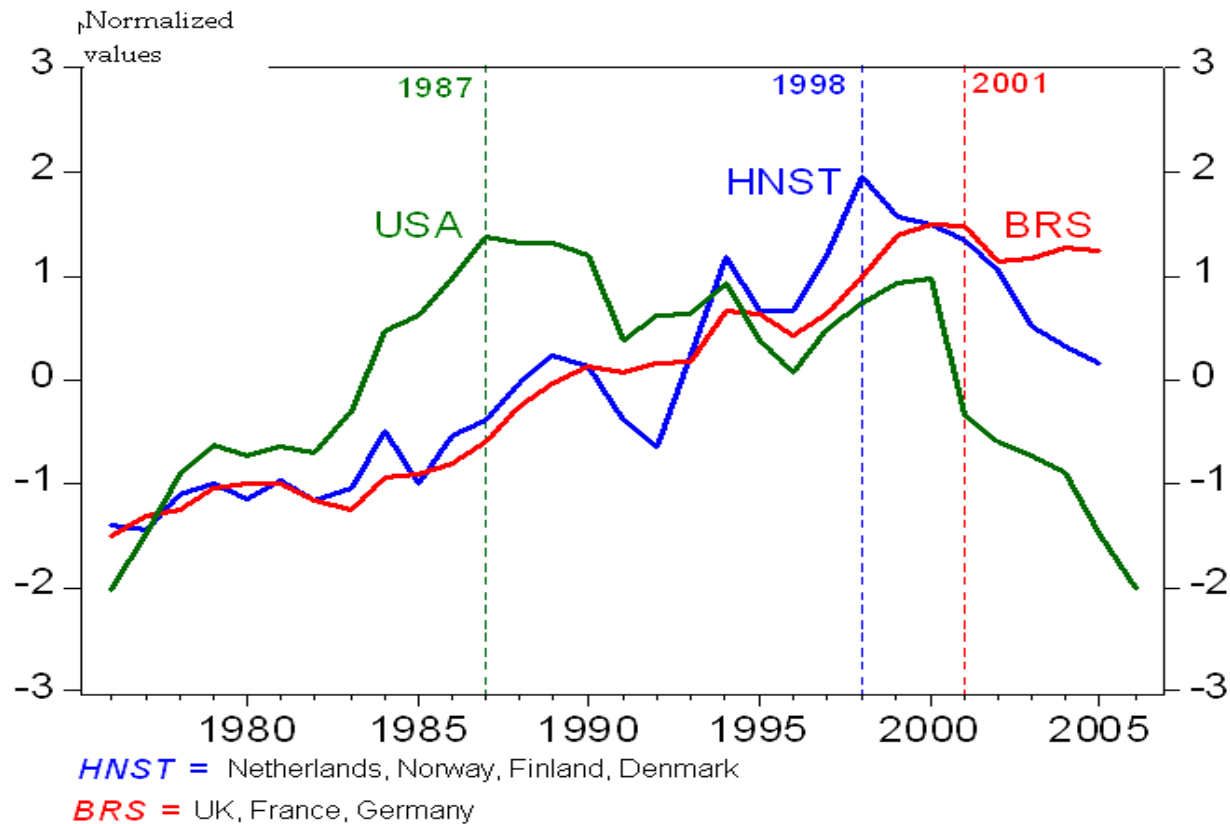
- 13 million hectares are deforested every year, 6 mill. ha new forests planted annually, net loss 7 mill. ha
- deforestation has a direct impact on global greenhouse gas emissions
- 25-30% (source:FAO) of the greenhouse gases released into the atmosphere is caused by deforestation



Threats: ICT

- Impact of information and communication technology (ICT) on paper consumption
 - so far, paper industry has gained from ICT
 - paper consumption has been correlated positively with GNP (growing) and negatively with price of paper (declining)
 - these relations may not be valid any more in OECD countries

Consumption of newsprint in some OECD countries



Source: Lauri Hetemäki 2006



Threats: conclusion

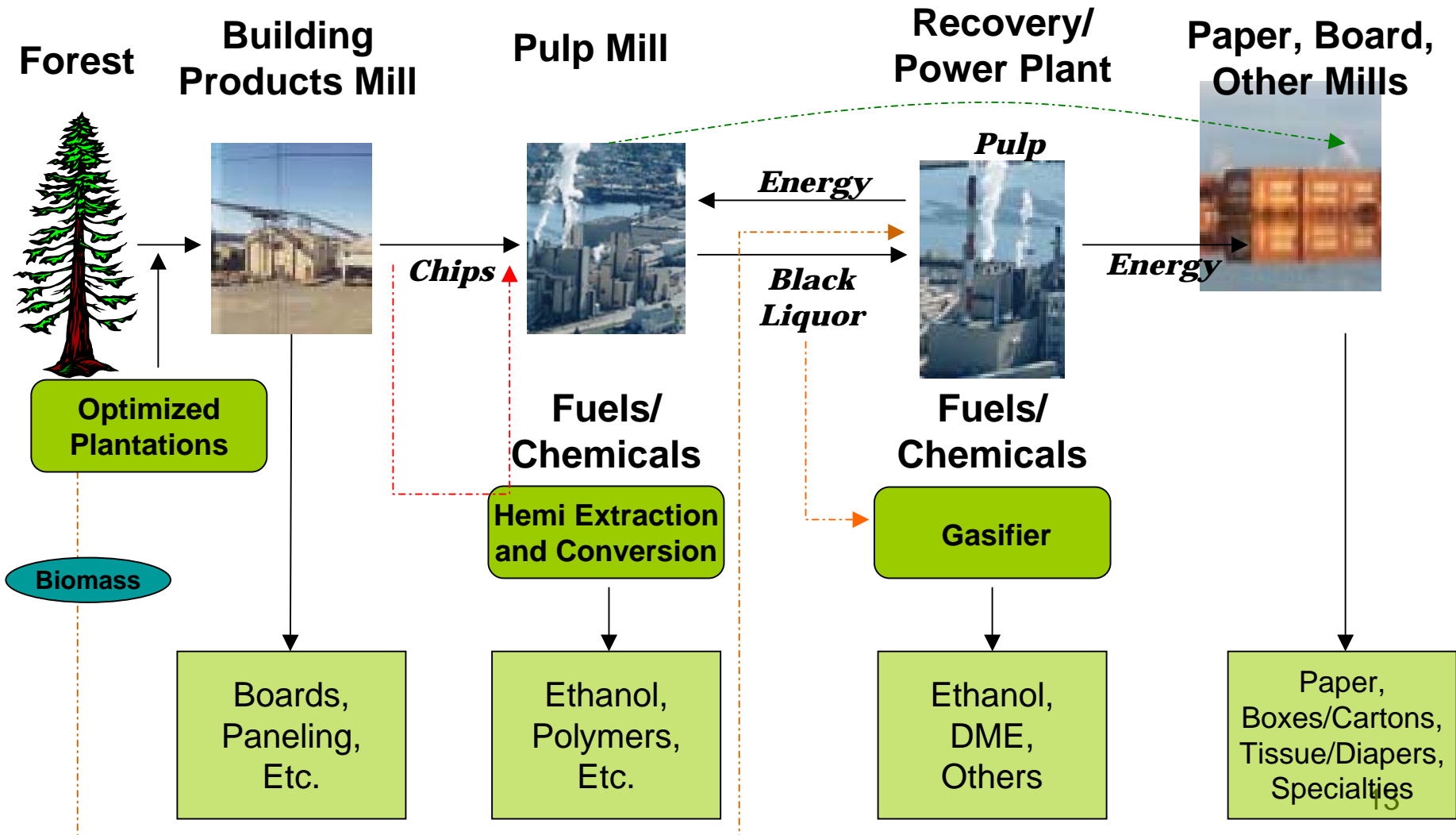
- Globalization and ICT make OECD countries less competitive in producing current products – new products and new business opportunities are needed
 - digital printing and hybridmedia
 - bioactive papers & products with biosensors
 - bioenergy and chemical products



New products and new business opportunities

- from pulp mills to biorefineries (all from the same mill):
 - traditional forest industry products
 - bioenergy products
 - wood chemistry products
 - medical products
 - functional food products

Integrated Forest Products Biorefinery Concept (Agenda 2020)





New (and weakly utilized old) business opportunities

- managing forests for non-wood products, and for environmental and social services
 - game, berries, mushrooms, medicines
 - nature-based tourism, recreation, health
 - water management, biodiversity, carbon sequestration
- issue: how to quantify (and justify) the economic value of intangible products to obtain recompense?



Summary

The global forest sector and forest sectors in many individual countries are experiencing a major change. Deforestation continues mainly in tropics having a significant impact on global emissions but at the same time, many developing countries and countries in transition are assuming the current role of OECD countries as principal producers of timber and forest industry products. The shift of the growth of the production of industrial timber and traditional forest industry products to new regions requires novel products and new business opportunities from the industry in OECD countries. These include bioenergy products and environmental services.