

GLOBAL WOOD SUPPLY

Sten Nilsson

Biomass and Resource Efficiency: the need for a supply led approach to forest productivity

European Parliament, Brussels, 10 November 2011

MEGATREND WOOD SUPPLY – 2020

- Increasing demand for wood through population and economic growth
- More expensive wood
- Where should the wood come from?

Western EU	Deficit
Eastern EU	Deficit
Rest of Eastern Europe	Balanced
Russia	Is probably at production ceiling under current conditions
Japan	Deficit
China	Huge deficit

New Zealand & Australia	+ 40 million m ³
South East Asia	Beginning deficit
India	Deficit
Africa	Beginning deficit
Latin America	Expansion potential
USA	Deficit
Canada	Deficit

RUSSIA

Advantages: Raw Materials

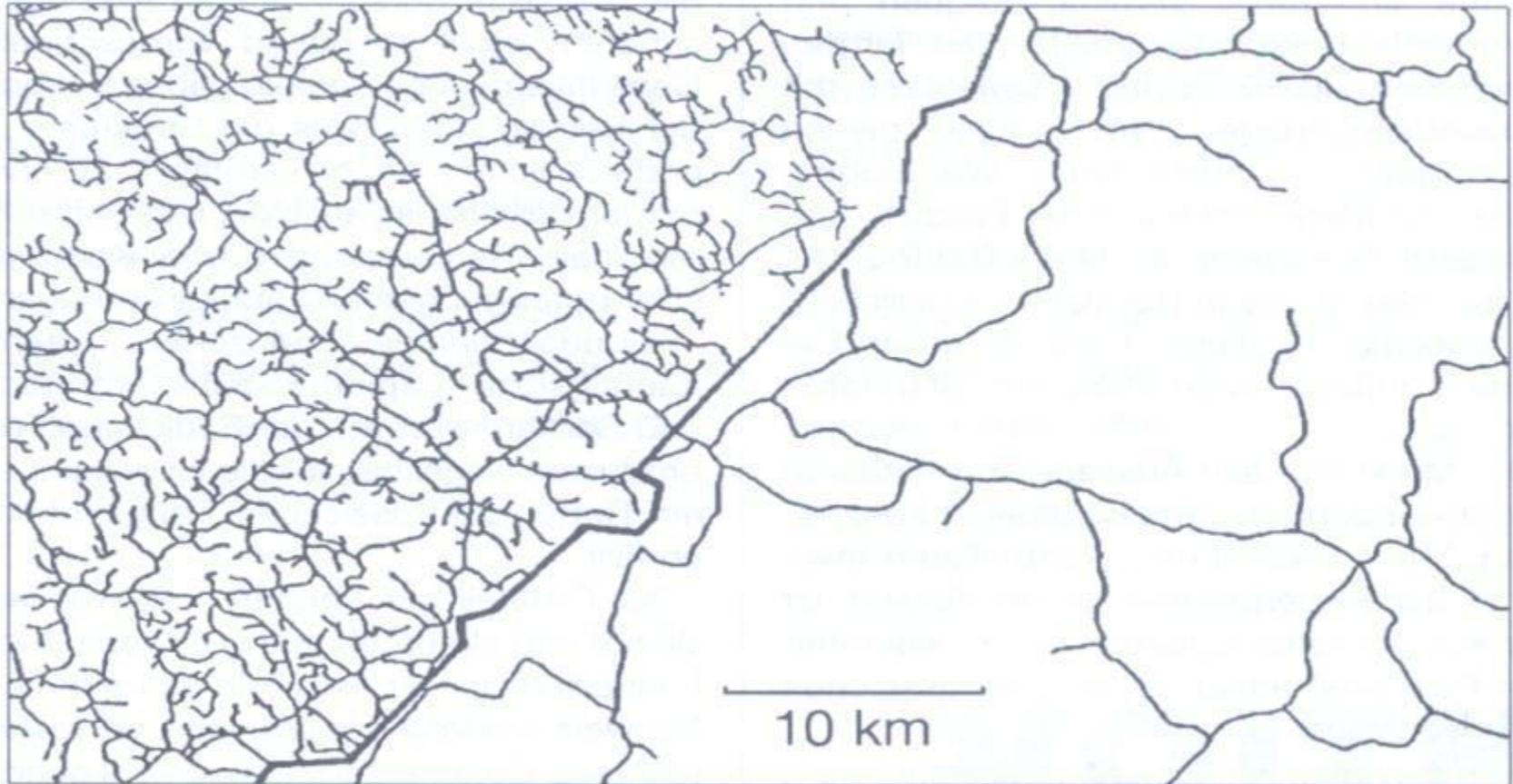


HIGHWAY CONDITIONS BETWEEN MOSCOW AND NOVOSIBIRSK, 2006



LACK OF ROAD INFRASTRUCTURE

Forstwege Finnland / Russland



Quelle: Metsä Botnia

JAPAN



Source: <http://www.trekearth.com/gallery/photo77800.htm>

JAPAN



Source: <http://www.trekearth.com/gallery/photo463813.htm>

CHINA



CHINA: Example of Inherent Variability

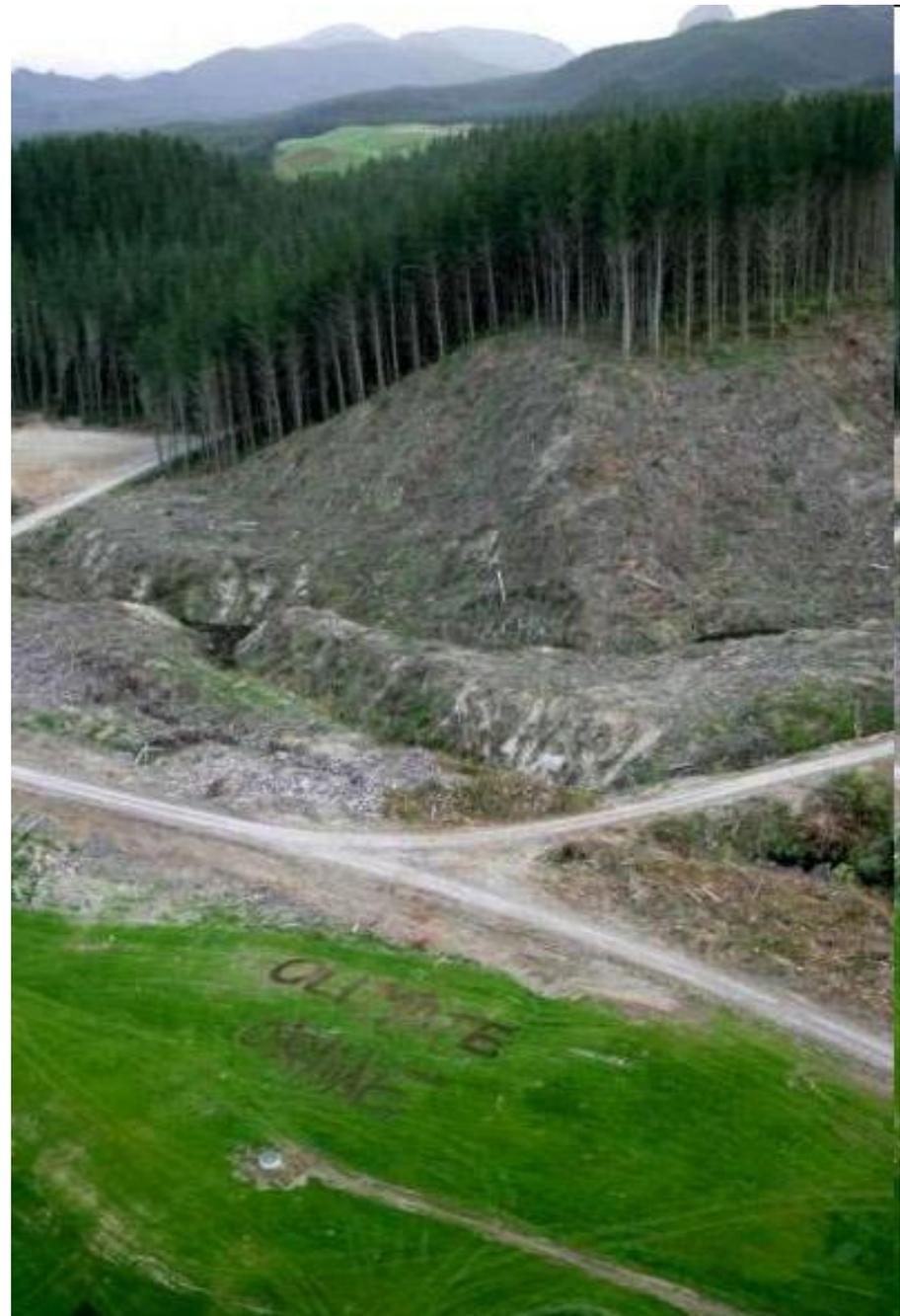


The trees on the left stand are no more than 20 meters away from the trees on the right

BAMBOO FOREST



NEW ZEALAND and AUSTRALIA



NEW ZEALAND Plantations



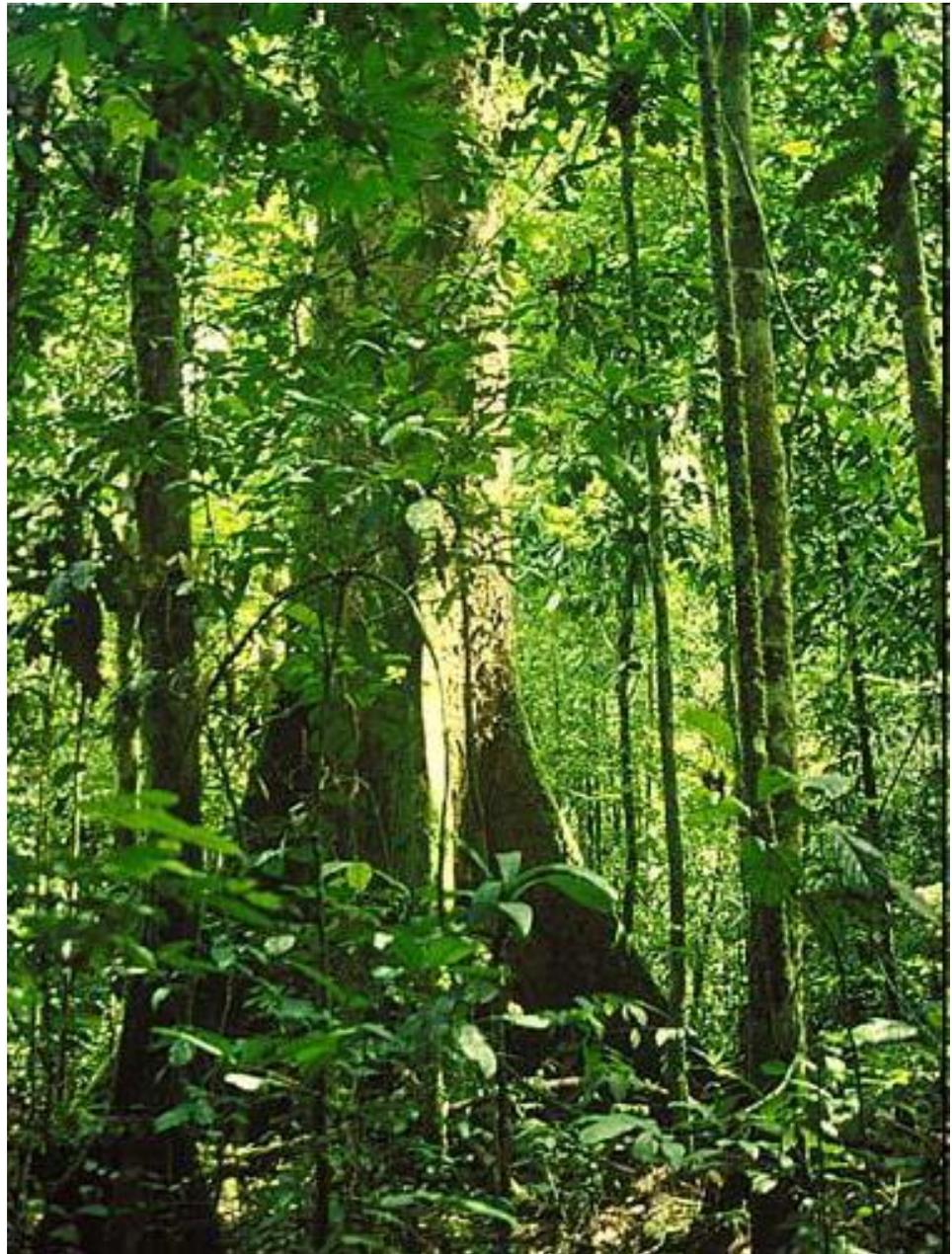
Source: <http://www.southernwoodcouncil.co.nz/images/Guy-in-forest.jpg>

SOUTH EAST ASIA



Source: http://2.bp.blogspot.com/_rku6deQBORg/SwGkWH3uE9I/AAAAAAAAIYY/CJxii5vYPN0/s1600/Forest+Indonesia.jpg

INDONESIAN TROPICAL FOREST

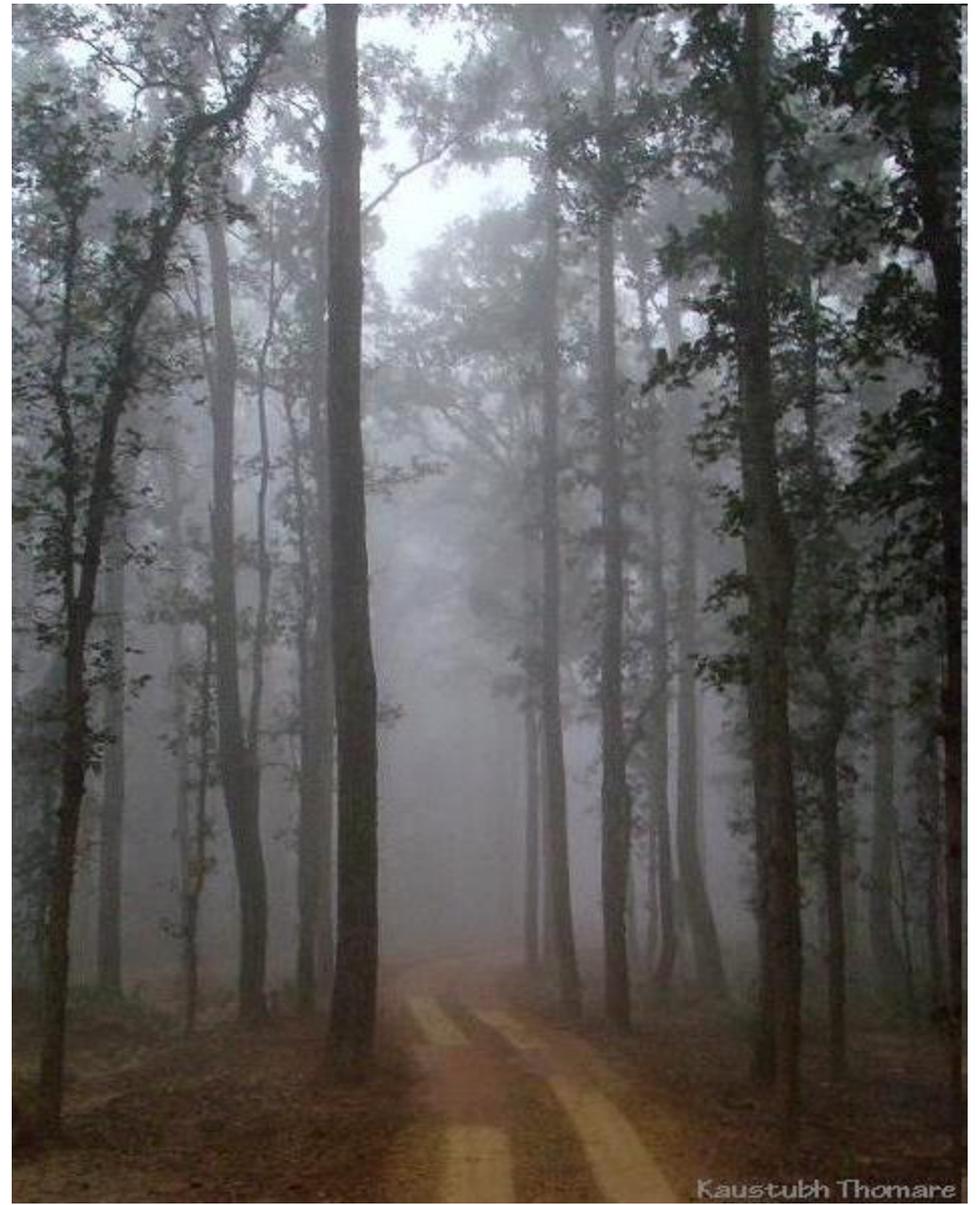


PALM OIL PLANTATION



Source: Karl Folke, Stockholm Resilience Center, 2008 (Presentation at IIASA, Laxenburg, Austria)

INDIA



INDIAN PLANTATION



Source: http://article.wn.com/view/2010/03/14/Digvijay_Singh_for_drafting_of_new_Indian_Forest_Act/#

AFRICA



Source: <http://www.nationaalherbarium.nl/taskforcebiodi/ivoorkust.jpg>

AFRICA



SOUTH AFRICA



AFRICA FIBRE RESOURCE

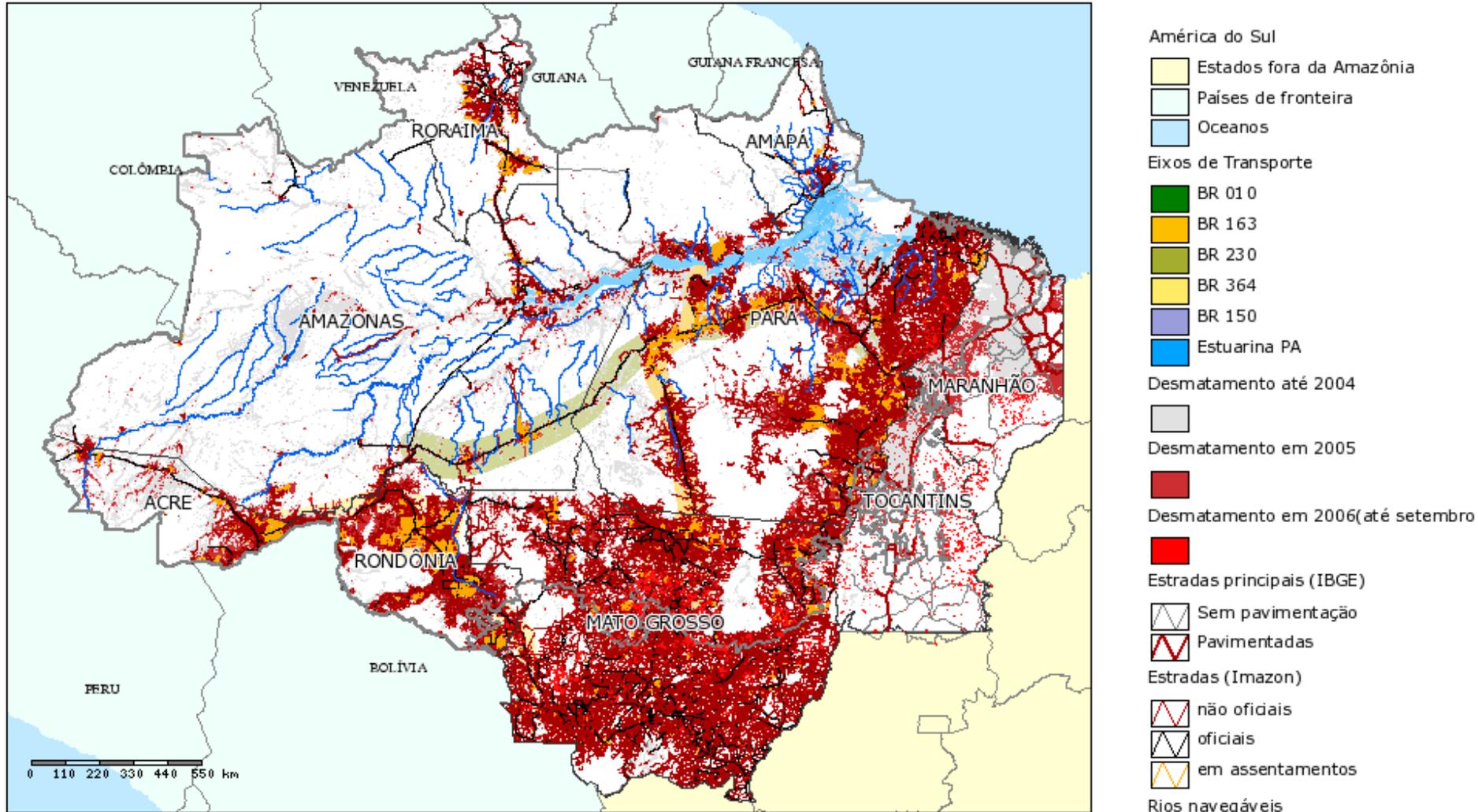
LATIN AMERICA AND CARIBBEAN



Source: <http://travel.webshots.com/photo/1010603567025458587tylGirNtNS>

AMAZONAS

Transport Infrastructure and Deforestation



BRAZILIAN PLANTATIONS



UNITED STATES OF AMERICA



Source: http://www.conservationnext.com/UserFiles/Image/old_growth.jpg

BROAD LEAVED – EASTERN USA



Source: <http://www.cas.vanderbilt.edu/bioimages/biohires/ecoregions/h50404bottomland-forest15842.JPG>

CANADA



Source: <http://forestfriendly500.org/files/images/temagamiaerial4.jpg>

MOUNTAIN PINE BEETLE



Source: Spatial Pattern Analysis & Research Laboratory, University of Victoria, BC, Canada, 2011.

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INDUSTRIAL WOOD DEMAND INCREASE TO 2030 IS SIZEABLE

Product Area	RWE Increase 2010-2030 ^A
Pulp & Paper ^B	150 million m ³ sub
Sawnwood ^C	250 million m ³ sub
Wood-based panels	400 million m ³ sub
TOTAL (gross)	800 million m ³ sub
TOTAL (net) ^D	700 million m ³ sub

- A) Increase according to Pöyry scenario in KSLA presentation
- B) Virgin pulp based demand increase
- C) Softwood & hardwood sawnwood including demand recovery 2020
- D) Including utilization of sawnwood residues in pulp and panels

WOOD FOR ENERGY

(in billion m3 RWE)

	2020	2030
Heat & Power (primary solid biomass)	3.0	3.25
Traditional solid biomass	5.3	5.0
Coal replacement	1.5	2.95
Biofuels	0.9-1.25	1.25-1.75

Thank you for your attention!



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