Efficiency Investment Opportunities that Promote Sustainable Forestry in Russia

Public Lands and Private Enterprises

by
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Investment Strategies for Local Economies

To begin, we'll focus our sustainable forestry "spotlight" on 3 arenas:

- ✓ **Better *resource* utilization.**
- ✓ **New *production* technology.**

Governments and Certification

Better resource utilization:

- ✓ **“Refining” Logs**
- ✓ **Trash to Cash**
- ✓ **“Character” Wood**

And . . . just for fun – use US markets as examples.

Governments and Certification

- ***Trash logs***
- ***Government "sells" for .25¢ per m^3***

Governments and Certification

Log sort & sales yard sold for \$80 per m^3

"Refining" Logs: Canada's case study

Price Differentials Due to Added Yard Sorts			
New Sort	Old Sort Price	New Sort Price	Differential (%)
Balsam Fir Peeler	$74.03	$105.15	(+42%)
Spruce O/S (Dry)	$73.92	$93.09	(+26%)
Spruce Peeler (Dry)	$89.13	$111.19	(+25%)
Pine Peeler (Dry)	$79.17	$88.14	(+11%)
Spruce Bldg. Log (Dry)	$79.17	$111.75	(+41%)

From Trash to Cash . . . .

Perception: ***Only wood with no defect is acceptable in the marketplace.***

Facts:

- ✓ **Top grade lumber will always have a market, but . . .**
- ✓ **More products are employing lower lumber grades, and . . .**
- ✓ **Some markets even pay a premium for "character" wood.**

"Character" Wood

Traditional Character Marks:

- **Sound knots (1" diameter or less)**
- **Small holes (pin holes; wormholes)**
- **Small pitch/gum pockets**
- **Mineral streak**
- **Mineral or sap stain**
- **Grain and color variations**

"Character" Wood

Non-Traditional Character Marks:

- **Large knots (> 1" diameter)**
- **Unsound knots**
- **Bark pockets**
- **Wane**
- **Split**
- **Large wormholes**
- **Short/shallow checks**
- **Spalty wood**

"Character" Wood: What is it Worth? Lots!!

If production allows for:	*% Increased yield in:*	
	1 Common	*2A Common*
• **Marks up to 2" in diameter on both faces of dimension parts**	+6.1%	+13%
• **2" marks on one face with other face clear**	+3.2%	+6.5%
• **Marks up to 1" in diameter on both faces**	+3.3%	+7.8%
• **1" marks on one face with other face clear**	+1.9%	+3.9%

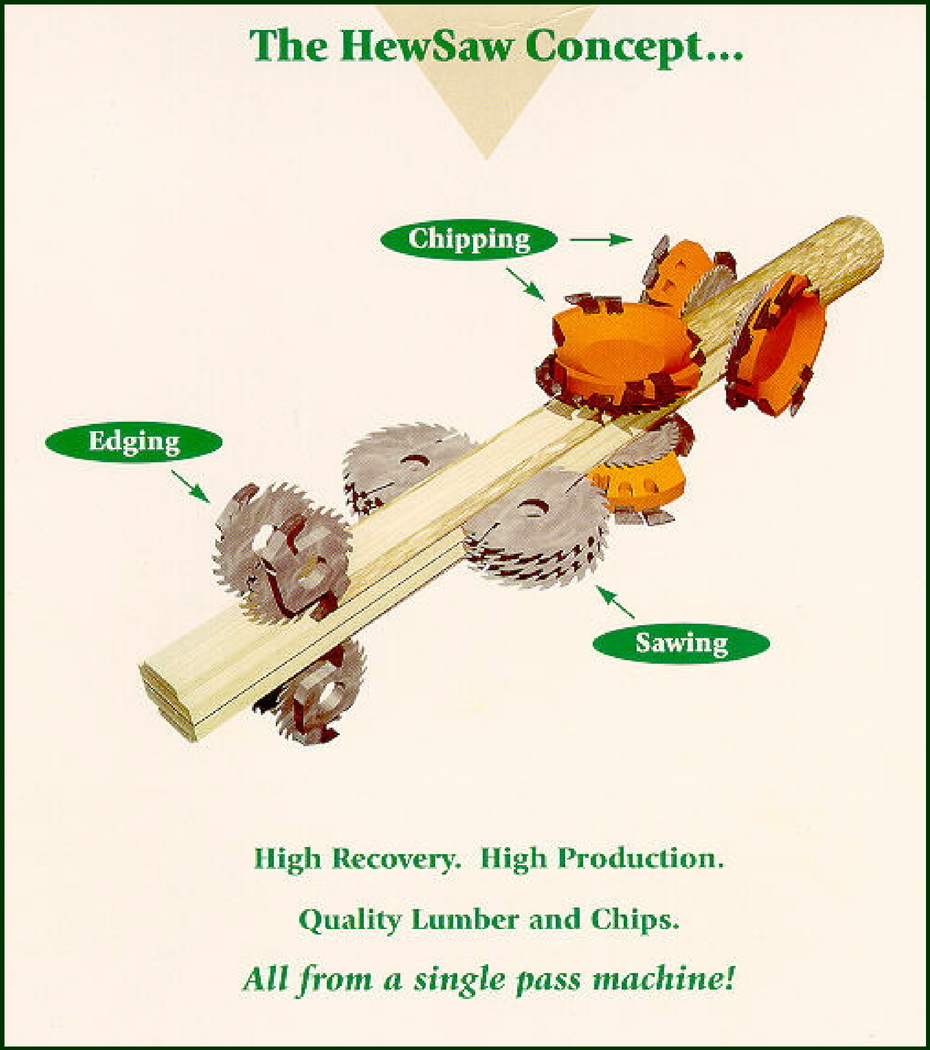
New production technology:

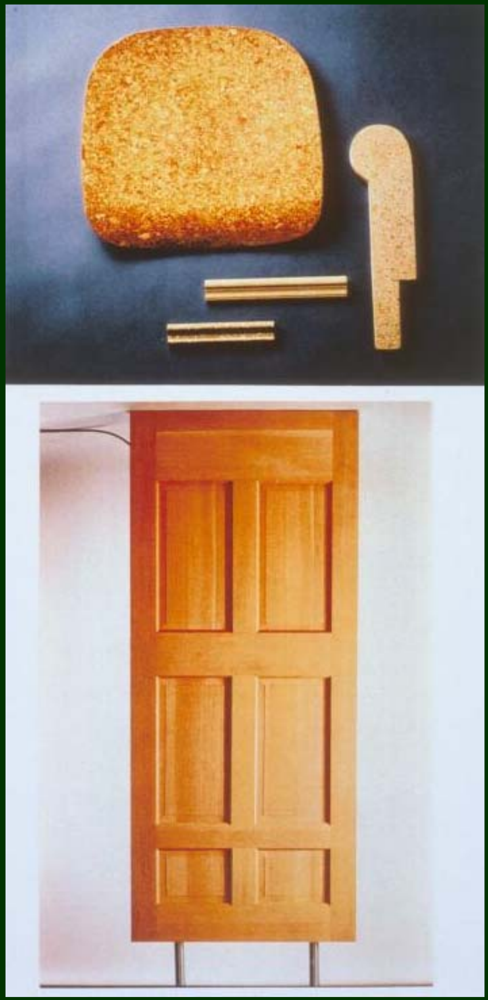
- ✓ **Small log processing.**
- ✓ **Compressed molded processing.**
- ✓ Simple wood drying improvements.

Small log & curve saw processing:

- ✓ **Efficiently processes 3" – 12" dbh logs, 4' - 20' lengths into lumber through single – pass system.**
- ✓ **Handles "*sweep*" & "*snake*" in logs by cutting along the curves. Significantly decreases wood loss, increases wood grade.**
- ✓ **Mills report increased recovery of 5% to 30%.**
- ✓ **Full system cost between US $750,000 to US $1mm.**

Governments and Certification





<u>Sorbilite</u>: high-compression molding

- ✓ **Use wood, plastic, agricultural waste fibers.**
- ✓ **Make substrate & veneer overlay in single pass.**
- ✓ **Turn-key costs = US $2 million US.**

Governments and Certification

Trim Block Dry Rack :

- ✓ **Hollow aluminum racks for drying wet trim ends & shorts.**
- ✓ **Easy to handle.**
- ✓ **Dries multiple widths & lengths.**
- ✓ **Very affordable (US $100 each)**

Recapping Investment Strategies for Local Economies:

- **Better *resource* use:**
  - **Refining log sorts & sales**
  - **Turning trash to cash**
  - **Cashing in on "character" wood**

- **New *production* technology**
  - **Small log processing**
  - **New uses for wood fibers**
  - **Simple wood drying improvements.**

Why Governments are Interested in Supporting Certification

Public Investment Strategies

Governments and Certification

Today, we will will look at:

- ✓ **Examples of government activities in forest certification in:**
    - **US**
    - **Canada**
    - **South America**
- ✓ **Reasons for involvement in certification process.**
- ✓ **Impacts of involvement.**

Why certification of public forestlands in the US?

- ✓ **Outreach to private landowners to evaluate market-based tools to decrease forest fragmentation & conversion by offering:**
  - ➢ **Transparency to public**
  - ➢ **Reduced-risk learning**
- ✓ **Outreach to legislatures**
- ✓ **Outreach to public**
- ✓ **Fiduciary responsibility**

Forestland Conversion in US:

- ✓ **Forest *fragmentation* and *conversion* of private forestlands no small matter.**
- ✓ ***20 mm acres* projected to be converted by 2020.**
- ✓ **Major net forestland losses occurring in *20 states* across US.**

Governments and Certification

US states and fiduciary responsibility:

- ✓ **Maximize profitability generated from forest resources:**
  - **Short-term**
  - **Long-term**
- ✓ **Must calculate costs for non-sustainable practices:**
  - **Public pressures**
  - **Legal pressures**
- ✓ **Must respond to market opportunities.**

US market demand for certified wood . . . no small impact:

- ✓ **Prior to 1999:** **2% of total solid wood flow in US**
- ✓ **Today:** **25% & growing due to Do-It-Yourself (DIY) stores & home construction industry.**
- ✓ **Largest DIY store in US (Home Depot) generates:**
  - **138 billion US in sales annually**
  - **800 new stores each year**

Governments and Certification

Federal agencies: **$200 billion US/yr in purchases**

"Greening of the Government Act"

By 2005 – at least 5% of wood products purchased by Federal agencies must come from wood resources which have been certified by a program which requires:

- **3rd – party assessments**
- **Adheres to FSC principles at a minimum**
- **Has chain-of-custody**
- **Has annual audits**

Governments and Certification

1998 – end of 1999:

Michigan:

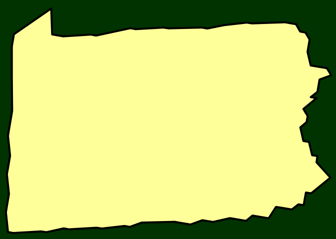
1mm acres

CSA & FSC

Pennsylvania:

2.1mm acres

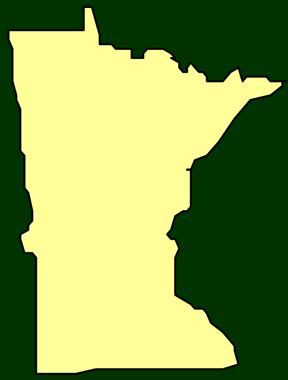
FSC - only



Minnesota:

600,000 acres

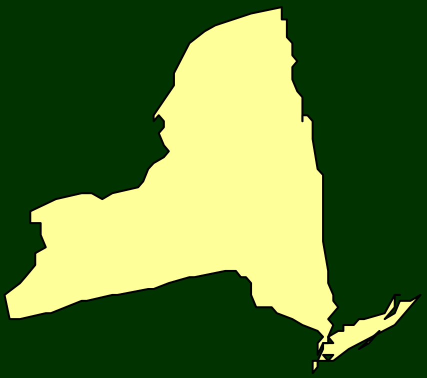
FSC - only



New York:

700,000 acres

FSC - only



Governments and Certification

***Beginning 2000*: mandate to look at . . .**

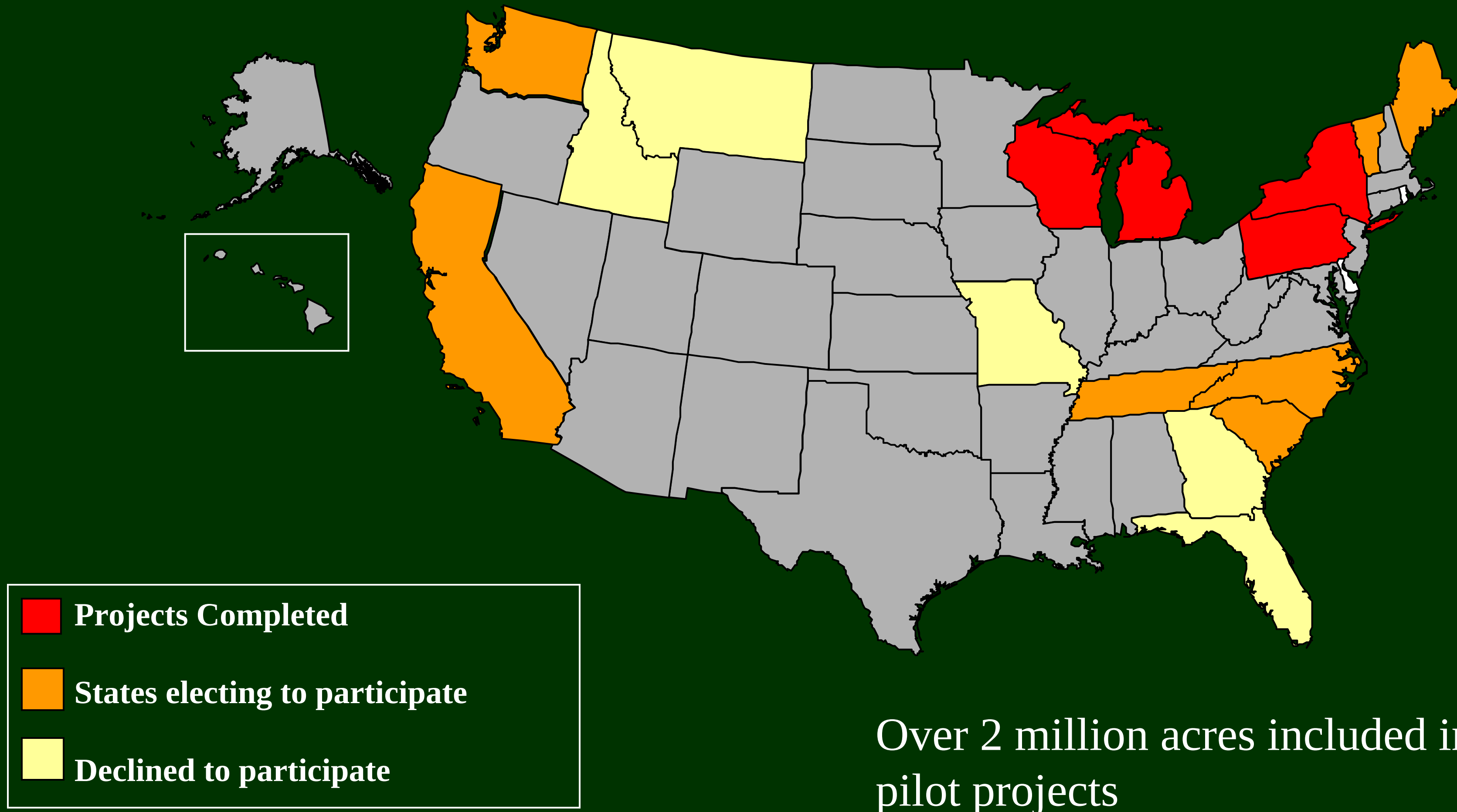
- ✓ Different forest landscapes.
- ✓ Different geographic regions.
- ✓ Different forest ownerships (where public oversight is involved).
- ✓ Different forest management structures.

That lead us to:

- ✓ Other state lands across US
- ✓ Federal lands
- ✓ Native American Nations
- ✓ University research & teaching forests

Governments and Certification

Expanded projects on state lands:



Over 2 million acres included in pilot projects

Project components:

Washington:

- **1.2 million acres**
- **FSC only (no SFI certifiers bid on RFP)**
- **Trust lands (first in nation)**

California:
(proposed)

- **70,000 acres (all state forests)**
- **FSC and SFI**
- **Major old growth stands**
- **Plus 3 university systems under consideration**

Maine:

- **480,000 acres**
- **FSC and SFI (single contract)**

Governments and Certification

Project components:

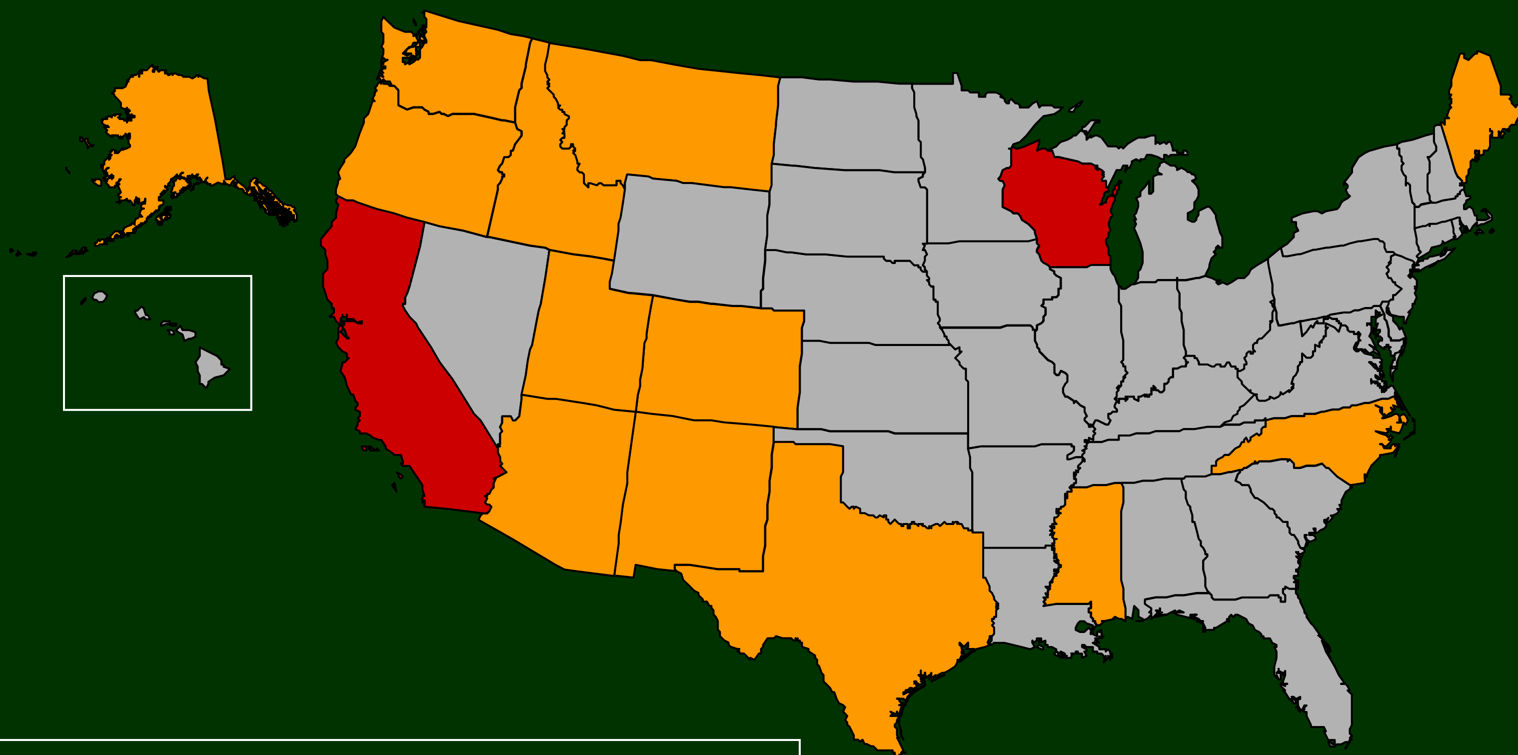
North Carolina:
- **55,000 acres (all state forests)**
- **FSC and SFI**
- **Duke U., NC State U.**

Vermont:
- **500 acres**
- **Marsh Billings Rockefeller National Historic Park**
- **FSC and SFI**

Tennessee:
- **156,000 acres**
- **FSC & SFI pre-assessment**
- **FSC-only full assessment**

Governments and Certification

Native American Forests–US



Red	States with certified tribal forestlands
Orange	Tribal projects underway

Represents 16 mm acres of tribal forestlands

Why certification of public forestlands in Canada?

- ✓ **Majority of total forestland owned by the government.**
- ✓ ***Environmental pressures* endorsing logging restrictions extremely effective.**
- ✓ **Court determinations mandate forest management *"agreement"* with First Nations.**
- ✓ **Severe quota & tariff restrictions for non value-added product flow into US. Certification currently being considered a *"value-added"* designation.**

Canadian FSC Certification:

British Columbia:

32mm acres

Ontario:

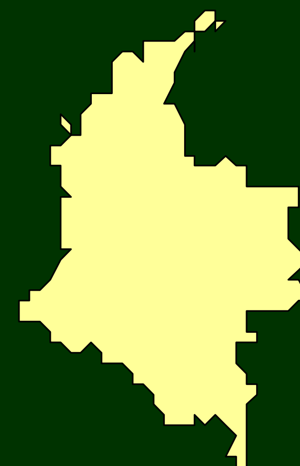
Entire province

Governments and Certification

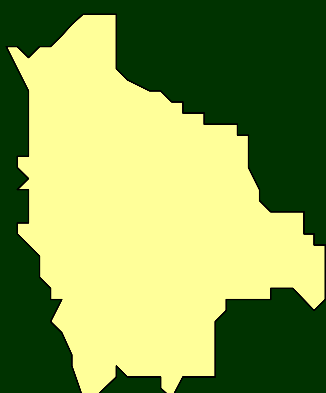
Forest certification efforts in South America:

Bolivia:

- **National forestland management based on certification**
- **6mm ha. to be certified by 2003**



Colombia:



- **New effort underway on 600,000 ha of private forestland**
- **Project focused on women's health & family issues, and alternative crop generation (vs cocaine cultivation).**

***Recapping*:**

- ***More and more public forestland managers are evaluating certification as a means to:***
  - **Provide outreach to private landowners.**
  - **Respond to market opportunities.**
  - **Reduce environmental pressures.**
  - **Increase public & political support.**