Vermont Forest Economy: A Primer

As kick-off to the REDWG legislative summer study

Michael Snyder, Commissioner and VT State Forester

7 July 2021
VERMONT IS
FOREST STRONG

Ecological

Cultural

Economic
State of Vermont’s Forests:

- 4th most forested state
- 4.5 million acres
- 75% forest cover
Future changes in Vermont's forestland base will depend on the pace of land development, particularly in the northwestern and southern parts of the state.
## Ownership of Forests in Vermont

<table>
<thead>
<tr>
<th>Ownership Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family and Individual</td>
<td>64%</td>
</tr>
<tr>
<td>Other Private</td>
<td>15%</td>
</tr>
<tr>
<td>Federal</td>
<td>11%</td>
</tr>
<tr>
<td>State</td>
<td>8%</td>
</tr>
<tr>
<td>Local</td>
<td>2%</td>
</tr>
</tbody>
</table>

**Private Landowners**

PRIVATE LANDOWNERS own 3.6 million acres.
The number of landowners is increasing, parcel sizes are decreasing and the age of owners is increasing.
A SNAPSHOT OF VERMONT’S FORESTS

Encouraging News

- Stocking levels increasing.
- Tree crowns are healthy and stable.
- Trees are getting bigger.
- Net tree growth exceeds removals.
A SNAPSHOT OF VERMONT’S FORESTS

Issues to Watch

- Loss of forestland to conversion to other uses.
- Invasive plants and pests are increasing.
- More landowners and smaller parcels.
- Forest landowners are aging.
LET’S KEEP VERMONT FOREST STRONG

Markets and Workforce Challenges

Conversion to Non-Forest Use

Poor Regeneration and Over Browsing

Invasive Plants, Pests & Pathogens
FUTURE OF VERMONT’S FORESTS

Livable communities, functioning natural systems, and quality of life rely on maintaining large blocks of contiguous forests across Vermont’s landscape and a viable, modern forest economy.

Decisions and actions made today will influence Vermont’s forests for years to come.
STRATEGIES FOR THE FUTURE

All are still particularly important

• Support Sustainable Forestry and the Vermont Forest Economy
• Increase Landowner Incentives to Keep Forests Forested
• Invest in Strategic Forestland Conservation
• Outreach and Education on Forest Values and Benefits
VERMONTERS SUPPORT THE WORKING LANDSCAPE

- 97% Value the working landscape and its heritage
- 94% Proud of living in Vermont
- 93% Value Vermont’s spirit of independence
- 91% Value the privacy in Vermont

Center for Rural Studies, 2008
What is the Forest Economy?
A SNAPSHOT OF VERMONT’S FOREST ECONOMY

Economic contributions

• Provided more than **13,000** jobs.

• Provided more than **2.1 billion** in total the economy.
  
  - Forestry direct sales: **1.37 billion**.
  
  - Agriculture direct sales: **884 million**.

• Accounted for **12%** of manufacturing jobs.

• Contributed to a regional forest products economy of **95,000 workers** and **27 billion** in direct output.
## DIRECT ECONOMIC CONTRIBUTIONS BY INDUSTRY GROUP, 2017

<table>
<thead>
<tr>
<th>Industry Group</th>
<th>Employment*</th>
<th>Labor Income (Thousands of Dollars)</th>
<th>Value-added (Thousands of Dollars)</th>
<th>Output (Thousands of Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forestry**</td>
<td>3,342</td>
<td>$34,873</td>
<td>$43,968</td>
<td>$75,732</td>
</tr>
<tr>
<td>Logging</td>
<td>1,737</td>
<td>$50,332</td>
<td>$52,799</td>
<td>$90,979</td>
</tr>
<tr>
<td>Primary solid wood products</td>
<td>941</td>
<td>$47,374</td>
<td>$79,769</td>
<td>$305,966</td>
</tr>
<tr>
<td>Secondary solid wood products</td>
<td>1,053</td>
<td>$45,676</td>
<td>$75,042</td>
<td>$217,960</td>
</tr>
<tr>
<td>Wood furniture</td>
<td>1,318</td>
<td>$58,983</td>
<td>$57,502</td>
<td>$173,733</td>
</tr>
<tr>
<td>Pulp, paper, and paperboard mills</td>
<td>641</td>
<td>$49,841</td>
<td>$78,548</td>
<td>$474,397</td>
</tr>
<tr>
<td>Secondary paperboard and other paper products</td>
<td>76</td>
<td>$4,393</td>
<td>$5,779</td>
<td>$32,082</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9,107</td>
<td><strong>$291,472</strong></td>
<td><strong>$393,406</strong></td>
<td><strong>$1,370,850</strong></td>
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## NATURAL RESOURCE AND AG PRODUCTION INDUSTRIES. 2017

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<td>9,107</td>
<td>$291,472</td>
<td>$393,406</td>
<td>$1,370,850</td>
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<tr>
<td>Commercial fishing, hunting, and trapping</td>
<td>72</td>
<td>$123</td>
<td>$460</td>
<td>$564</td>
</tr>
<tr>
<td>Mining, and oil and gas production**</td>
<td>1,190</td>
<td>$48,502</td>
<td>$299,698</td>
<td>$396,414</td>
</tr>
<tr>
<td>Agricultural production (plant crop and animal)</td>
<td>9,860</td>
<td>$151,487</td>
<td>$304,909</td>
<td>$884,188</td>
</tr>
<tr>
<td>Total</td>
<td>20,229</td>
<td>$491,584</td>
<td>$998,473</td>
<td>$2,652,016</td>
</tr>
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</table>
Annual VT Forest Product Harvest: All volume converted to cords

*Volumes do not include residential firewood volume.
HARVESTS

Total Forest Product Harvest by Product in Vermont: 2019
(997,880 cords)

- Residential & Utility Roundwood Fuelwood: 41%
- Pulpwood: 19%
- Whole-tree Chips: 14%
- Sawlogs & Veneer Logs: 26%
SAWMILLS

Active Medium to Large Sawmills

1990

190,945 MBF

2020

87,890 MBF
Since 1999, the Northern Forest region has lost 11 pulp mills:

- New York
  - Deferiet
  - Lyons Falls
- New Hampshire
  - Groveton
  - Berlin
- Maine
  - Westbrook
  - Bucksport
  - Lincoln
  - Millinocket
  - East Millinocket
  - Madison
  - JAY
2019 WOOD FLOWS

- Sawlog Harvest: 127,658 Mbf
- Processed in VT: 82,558 Mbf
- Exported: 70,326 Mbf
- Imported: 25,226 Mbf

Imported from other states: 25,226 Mbf
Exported to other states: 35,943 Mbf

Imported from QC: 0 Mbf
Exported to QC: 32,360 Mbf
Exported Overseas: 2,023 Mbf
2019 SAWLOG PROCESSING

VT Sawlog Harvest: “Domestic” Processing vs. Export (% of Total Harvest 2019)

- In-State Use
- Export

Species: Ash, Birch, White, Birch, Yellow, Cherry, Hard Maple, Soft Maple, Oak, Red, Oak, White, Cedar, Hemlock, Pine, White, Pine, Red, Spruce/Fir
DOMESTIC HARDWOOD LUMBER MARKETS

Hardwood Lumber Consumption in Billions of Board Feet

- Furniture
- Mill/Floor/Cabinet
- Export
- Ties
- Pallet

US Hardwood Lumber Consumption by Major Markets: 2018
SOFTWOOD LUMBER END USES

Softwood Lumber End-Use Category: 2015

- New Residential: 30%
- Industrial: 24%
- Non-Residential: 4%
- Repair/Remodeling: 30%
WOOD HEAT

Supporting our local economy

- **78 cents** of every fossil fuel heating dollar *leaves* VT.
- **80 cents** of every locally sourced wood heat dollar *stays* in VT.
- **90%** Renewable Energy by 2050.
- **35%** of VT’s *thermal* energy needs from wood heat by 2030.
- **If we reach our goal:** *40 million gallons* of fossil fuel displaced annually, saving Vermonters *120 million*/ year
FOREST ECONOMY CHALLENGES: 2021

Permitting/regulatory costs

Access to capital

LABOR

TRUCKING

PULP & CHIP MARKETS

VERMONT DEPARTMENT OF FORESTS, PARKS, AND RECREATION
<table>
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<th>Develop local markets</th>
<th>Create new markets within the industry and beyond</th>
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<td></td>
<td>Vermont Sustain a viable workforce</td>
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<tr>
<td>Working Land Enterprise Initiative</td>
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**Support Sustainable Forestry and Vermont Forest Economy**

**Ensure** that forest landowners can get economic value from their forested land through policies that promote sustainable forestry and develop and create markets for Vermont forest products.
Sustainable Forestry and the Vermont Forest Economy

- Support & Improve Training for Loggers
- Protect and improve infrastructure that supports the local wood industry
- Expand modern wood heating in Vermont
- Expand markets for Vermont wood products
- Recognize and promote the value of forests in outdoor recreation and tourism
THANK YOU