The Importance of Forest Products for New York’s Bioeconomy

KEY POINTS

1. The bioeconomy describes the portion of the economy that produces renewable bio-based feedstocks and converts them to value-added products, such as bio-based products, bioenergy, food, and feed.

2. Other states and countries already recognize the importance of the bioeconomy and are developing it.

3. A state-based bioeconomy initiative could greatly increase the number of urban and rural good-paying jobs and stimulate economic growth throughout New York State while our forests continue to be sustainably harvested.

4. To be a national and international bioeconomy leader, New York needs to develop a comprehensive bioeconomy roadmap based on its resources and strengths.

5. At SUNY ESF, we are well positioned to empower New York State to utilize its forest resources to enhance its bioeconomy.

WHAT IS THE BIOECONOMY?

- The bioeconomy describes the portion of an economy that produces renewable bio-based feedstocks, rather than fossil fuel-based feedstocks, to produce bio-based products (e.g., chemicals, pharmaceuticals, biodegradable plastics), bioenergy, food, and feed.

- It uses forestry-, agriculture-, and aquaculture-based feedstocks, as well as biological raw materials produced by industry.

- Utilizing bio-based feedstocks, creates locally-based jobs and economic development while providing climate change benefits and other environmental services, such as clean water, wildlife habitat, and recreation opportunities.

The US Bioeconomy

The USDA Office of Chief Economist estimates that in 2014 the US's bio-based products industry supported 4.22 million jobs and added $393 billion in value to the US economy.¹

Other Economies are Developing Their Bioeconomy

Other states and countries already recognize the importance of the bioeconomy in a future sustainability-focused world, and the benefits it can provide to their citizens.

- **Minnesota.** In 2015, the Minnesota legislature created a new incentive program to attract commercial-scale production of advanced biofuels, renewable chemicals, and biomass thermal energy. The Bioeconomy Coalition of Minnesota is positioning the state as a global bioeconomy leader.²

- **Finland.** Finland’s national bioeconomy strategy is designed to grow their bioeconomy output by EUR 100 billion and create 100,000 new jobs by increasing bioeconomy businesses and adding new high value products and services.³

continued on back
BOOSTING NEW YORK STATE FORESTS AND THE BIOECONOMY

New York’s forests and wood products industries are currently directly responsible for nearly 40,000 well-paying jobs and more than $13 billion of economic output, and are indirectly responsible for another 53,000 jobs and nearly $10 billion of economic activity. A state-based bioeconomy initiative could greatly increase the number of urban and rural good-paying jobs and economic growth throughout New York State while our forests continue to be sustainably managed, increase carbon sequestration, and provide the clean water, wildlife, recreational, and other attributes that New Yorkers expect and rely on from their forests.

A Path Forward

To be a national and international bioeconomy leader, New York needs to learn from other nations’ and states’ bioeconomy initiatives and strategies, and develop its own comprehensive bioeconomy roadmap. This initiative will ensure a competitive business environment for bio-based businesses and provide workforce development opportunities for workers to acquire bioeconomy-based job skills, while ensuring policies promote the sustainable management of our forests and access to the forest-based bioeconomy feedstocks.

At SUNY ESF, we are well positioned to empower New York to utilize its forest resources to enhance its bioeconomy. For example, we are already:

- Assessing the role our forests can play in climate adaptation and mitigation;
- Working with industry and other partners to convert biological resources into value added bio-based products and bioenergy;
- Creating innovative solutions for increasing carbon sequestration in our forests, climate mitigation, and energy production; and
- Analyzing how mass timber buildings (i.e., 5 to 20 story mid-rise buildings) can be deployed across New York State.

For more information about how SUNY ESF can empower NYS’s Bioeconomy, contact:
Dr. Timothy Volk, Senior, Research Associate tavolk@esf.edu  (315) 470-6774
Dr. Robert Malmshheimer, Professor of Forest Policy and Law rwmalmsh@esf.edu  (315) 470-6909

References:

New York State Forest Sector in 2017
(source: Cavo et al. 2019)

<table>
<thead>
<tr>
<th>Region</th>
<th>Employment</th>
<th>Direct Economic Activity (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western/Central NY</td>
<td>9,029</td>
<td>$2,916</td>
</tr>
<tr>
<td>Southern Tier</td>
<td>4,579</td>
<td>$1,201</td>
</tr>
<tr>
<td>North Country</td>
<td>7,931</td>
<td>$3,563</td>
</tr>
<tr>
<td>Capital Region</td>
<td>3,644</td>
<td>$1,088</td>
</tr>
<tr>
<td>Downstate</td>
<td>14,701</td>
<td>$4,381</td>
</tr>
</tbody>
</table>

ABOUT THE CLIMATE & APPLIED FOREST RESEARCH INSTITUTE

CAFRI is composed of a multi-disciplinary team of international and national forest experts based at SUNY ESF who provide policymakers and the public with science-based and practical solutions to address climate change.