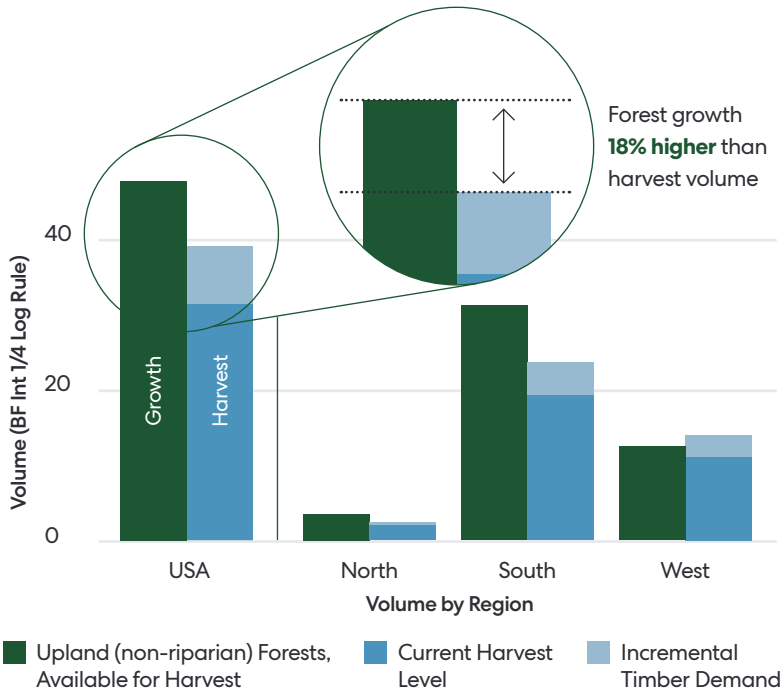
Study shows US forests can sustainably produce more timber, reducing greenhouse gas emissions and embodied carbon in the built environment

The Binational Softwood Lumber Council (BSLC) engaged the University of Washington's Center for International Trade in Forest Products (CINTRAFOR) and the Natural Resource Spatial Informatics Group (NRSIG) to research softwood timber supply in the United States considering the growing use of wood products, including mass timber. Using USDA Forest Service Forest Inventory and Analysis[1] (FIA) data, incremental U.S. softwood timber harvests were projected to supply what would be needed for the highest volume scenario of mass timber and light framing consumption in 2035.[2] Growth in reserve forests and riparian zones (an area of trees located adjacent to water sources like rivers, lakes, and wetlands) was excluded, and low confidence intervals were used for growth estimates, compared with high confidence intervals for harvest and consumption estimates— creating the most conservative scenario. Results were considered for the U.S. in total and by three geographic regions (North, South, West).

Will rising demand for mass timber products result in unsustainable levels of harvesting in coniferous forests in the United States? **The answer is no.**

U.S. forest growth exceeds harvest levels—even in the most conservative scenario, using the lowest estimate of growth and the highest estimate of harvest volumes required to meet incremental demand for both lumber and mass timber in 2035.

Estimated Growth and Harvest Volume with Projected 2035 Mass Timber Demand



Important Questions Answered

→ **What is the current rate of softwood harvesting relative to growth and reforestation?**
Current consumption is 66% of growth.

→ **What is the increased mass timber demand relative to current harvest levels?**
Forecasted demand by 2035 represents an increase of 17% over what is harvested today.

→ **What is the projected rate of harvesting, compared to growth and reforestation, once you factor in the projected 2035 mass timber demand?**
Forest growth exceeds harvest by 18% with the highest estimated demand and lowest forest inventory estimate.

→ **How many seedlings are planted in the U.S. for every thousand board feet of lumber?[3]**
The forest industry replants over 783 million seedlings per year. 23 seedlings are planted per thousand board feet of lumber produced.

[1] The USFS FIA program collects, analyzes, and reports information on the status and trends of America's forests: how much forest exists, where it exists, who owns it, and how it is changing, including how much timber has died or been removed (https://www.fia.fs.fed.us/about/about_us/index.php). FIA data has been collected since 1930 and is the most comprehensive effort in the country to make and keep current an inventory and analysis of the present and prospective conditions of U.S. forests.
[2] Timber demand forecast developed by the Softwood Lumber Board.
[3] The number of conifer trees replanted in the United States is estimated for every thousand board feet of lumber produced by comparing seedling production and reforestation practices to lumber production.

THINK WOOD®

We Can Meet Demand for Wood Products While Creating Healthier, More Resilient Forests

Overstocked forests are vulnerable to drought, disease and insects, making them prone to high rates of tree mortality and wildfires that are very difficult to control.[4]

As part of their mass timber demand analysis, the study authors also assessed areas of opportunity to sustainably increase harvesting beyond current levels by looking at under-utilized growth by state, owner and region.
These sources can meet increased demand, make our forests more resilient and require no policy changes.

1

Privately Owned Forests in the South

Privately owned forests in the South produce the largest proportion of lumber in the United States. Simultaneously, these forests are growing substantially more softwood volume than is being harvested. In total, at the time of FIA's survey,[5] growth in the South was **outpacing harvests by 11.2 billion board feet,** with Mississippi, Alabama and Georgia as the **top three sources of oversupply.**

2

Overstocked National Forests in Washington, Oregon and California

Increasing forest management in unreserved National Forest lands would have both economic and ecological benefits, particularly related to reducing wildfire risk. Five percent **(1.9 million acres)** of National Forest area is classified as overstocked according to FIA, containing 92 BBF **(11 percent)** of standing volume. Thirteen percent **(211,000 acres)** of overstocked forests are not reserved and not near water, so they can be harvested. **This would not require major policy changes, but would require capital investment in some geographic areas to thin and process the overstocked timber.**

3

Processing Capacity in Eastern Washington and Oregon

Limited sawmill locations in eastern Washington and Oregon have resulted in some saw logs being economically infeasible to move from the logging site to the mill. Timber harvests in the region could produce **500-750 million board feet per year.** Private lands account for the majority of unutilized material.

Modern forestry standards ensure a continuous cycle of growing, harvesting and replanting.

Forest management in the U.S. and Canada operates under federal, state, provincial and local regulations to protect water quality, wildlife habitat, soil and other natural resources. In the U.S., more forest land is lost to development than forestry.

[4] https://www.stateforesters.org/where-we-stand/forest-management/
[5] Researchers used most recent estimate, downloading FIA data in spring 2021. This includes plots from 2011-2021. More detail on FIA sampling and plot design here.

Download the peer-reviewed study in *Sustainability.*