



**Kathryn Fernholz**  
President/ CEO  
**August 2020**



## **Sustainable Forestry**

### **Renewable Materials Storing Carbon**

*Disclaimer: This presentation was developed by a third party and is not funded by WoodWorks or the Softwood Lumber Board.*







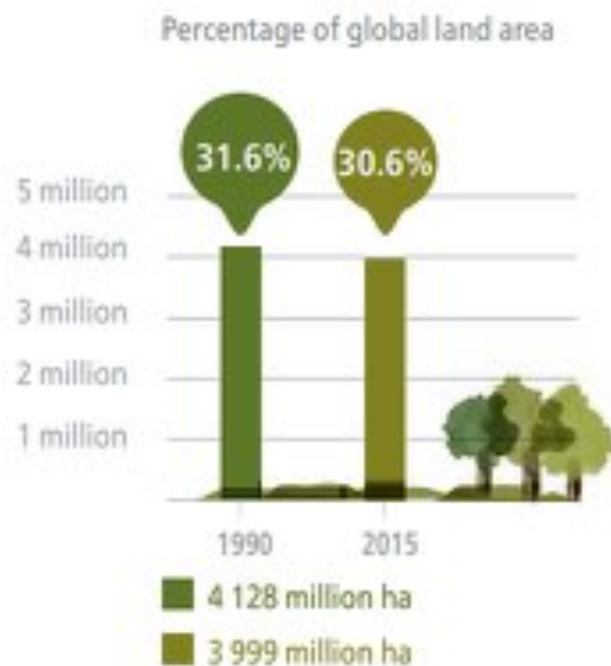
# Global Forest Resources Assessment

2015




How are the world's forests changing?\*

Forested areas have decreased but rate of net forest loss has been cut by 50%



- **The biggest loss** has been in the tropics, particularly in Africa and South America.
- **Net forest area has increased** in over 60 countries and territories, most of which are in the temperate and boreal zones.



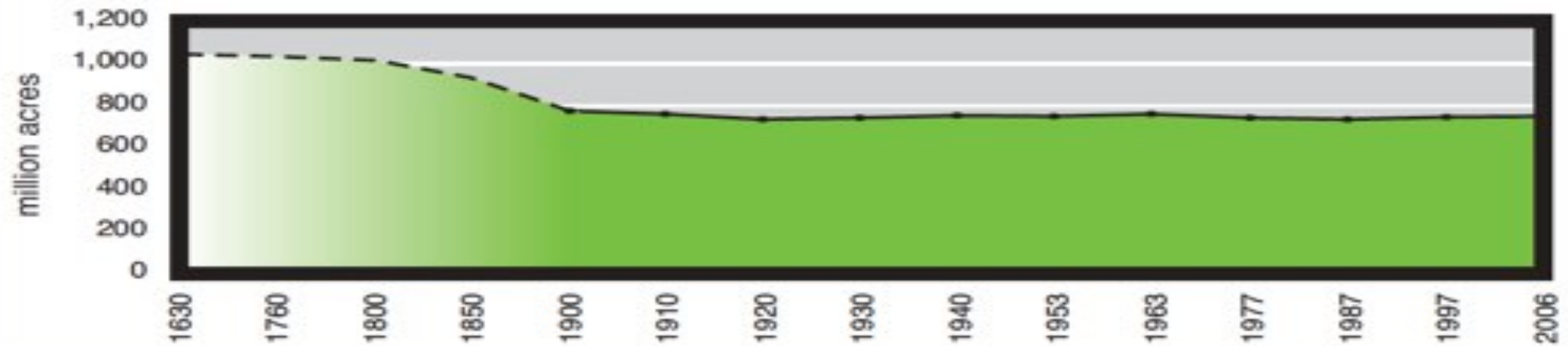
**The use of a variety of  
forest products supports  
sustainable management of  
forest lands.**







## Trend in US forestland area, 1630 to present



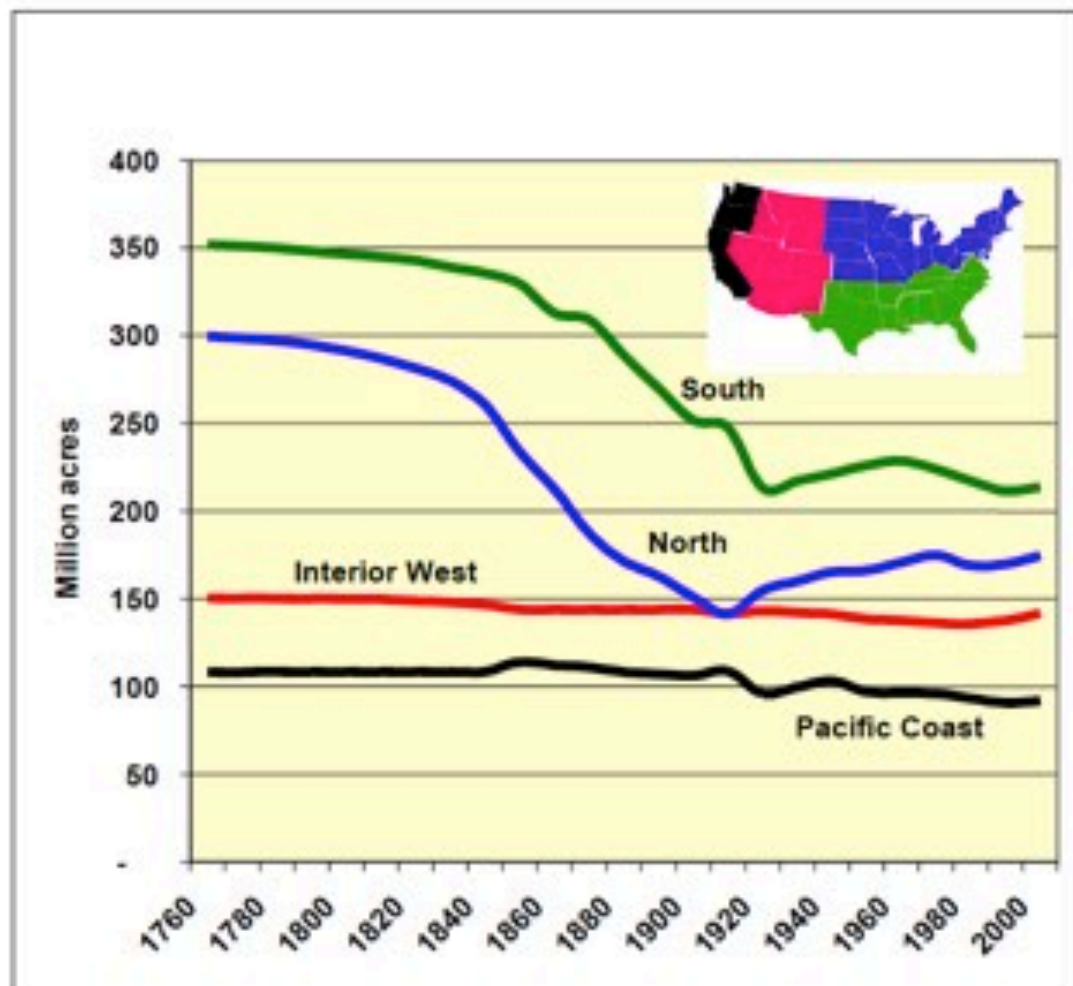
*Note: Data prior to 1950 are based on historical evidence, not field sampling.*

*Source: USDA Forest Service, Forest Inventory Analysis Program. 2006.*





## Regional forest trends in the 48 States, 1760-2000



Original forests in what is now the U.S. totaled about 1.05 billion acres (including what is now the State of AK and HI). Clearing of forest land in the East between 1850 and 1900 averaged 13 square miles every day for 50 years; the most prolific period of forest clearing in U.S. history. This coincides with one of the most prolific periods of U.S. immigration. Currently, forests cover about 749 million acres of the U.S. or about 33 percent of all land.

### Basis for chart data:

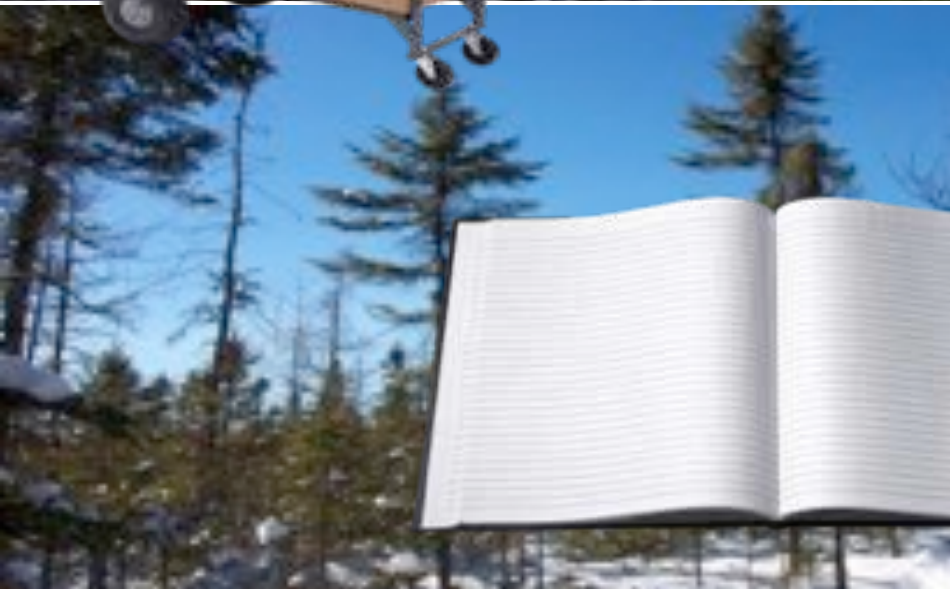
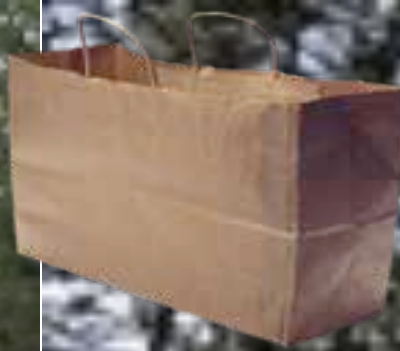
- 1940- pres. FIA Field Inventory Reports
- 1900 - 1930 Forest Service report estimates prior to FIA field inventories.
- 1850 - 1890 Based on Bureau of the Census land clearing statistics.
- 1760 - 1840 Based on estimates of forest clearing proportional to population growth.

Source: [National Report on Forest Resources](#) and other historic data

[Return to FIA Home](#)



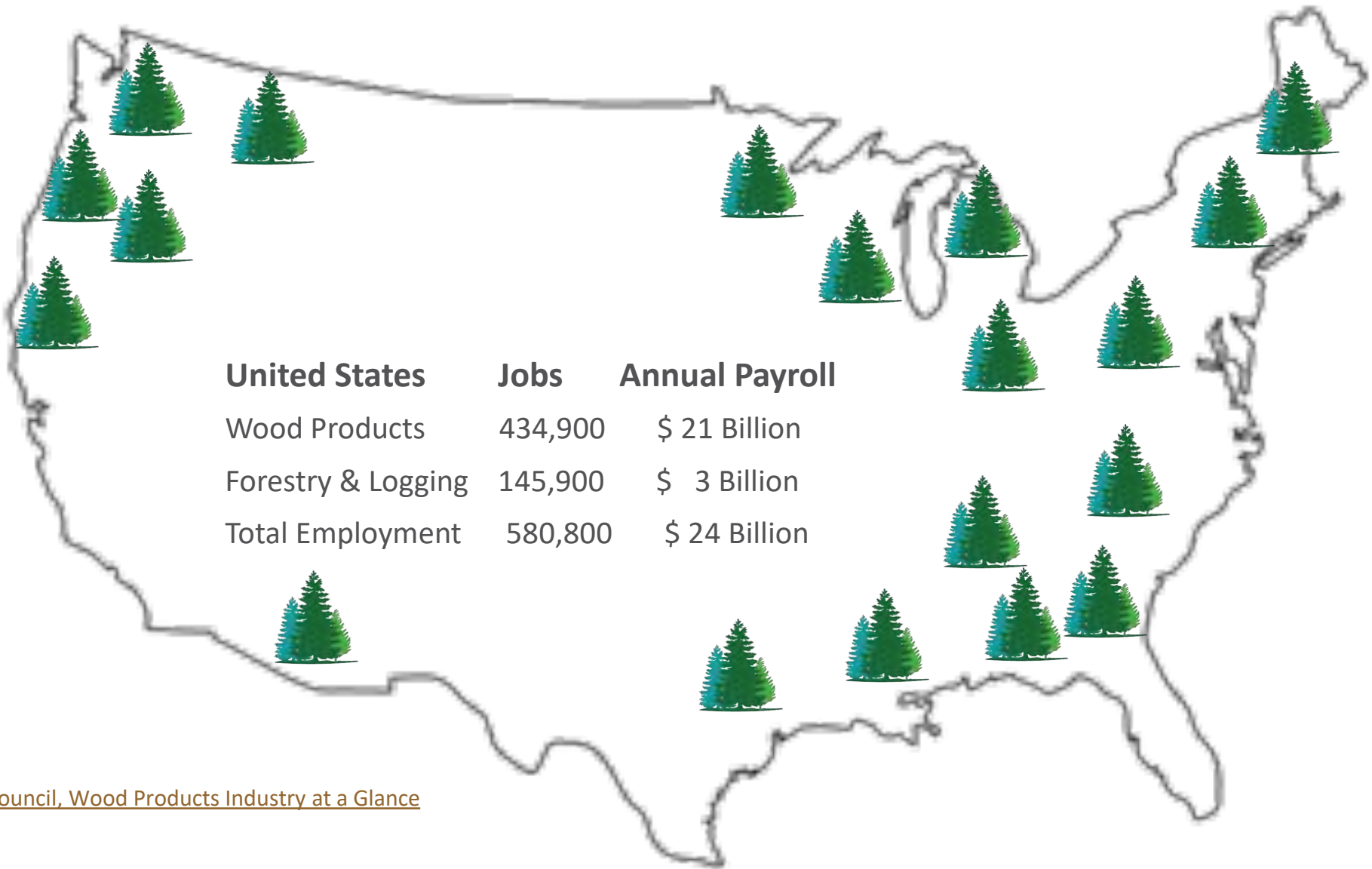






# Wood Products

Increase Forest Value & Support Rural Economies



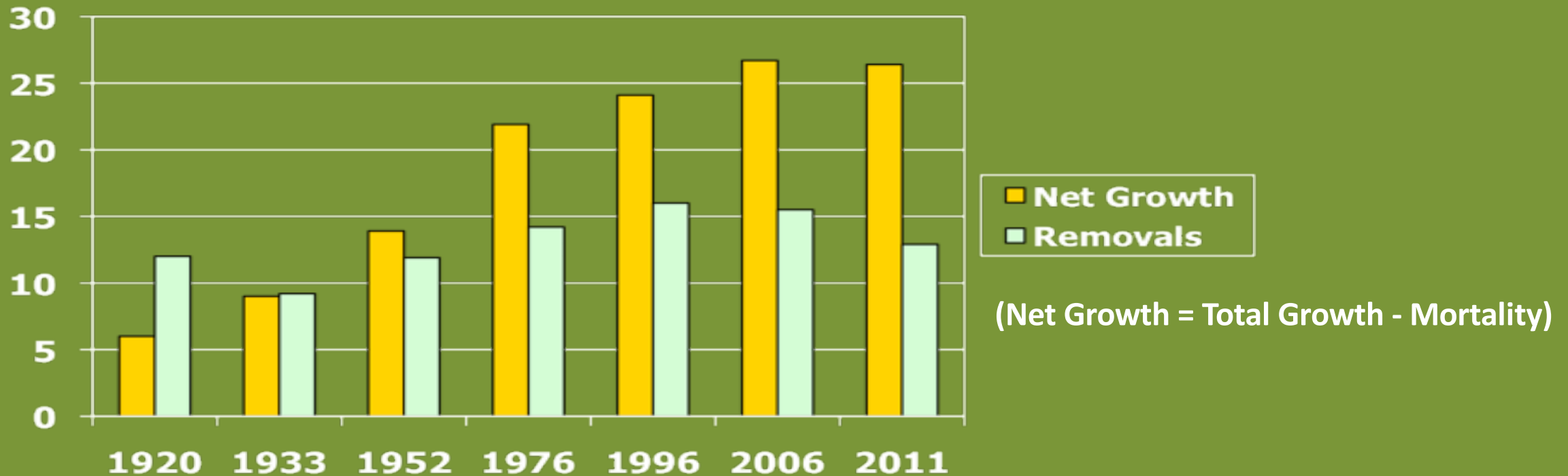
Source:  
[American Wood Council, Wood Products Industry at a Glance California 2018](#)





# U.S. Forest Growth and All Forest Product Removals, 1920 - 2011

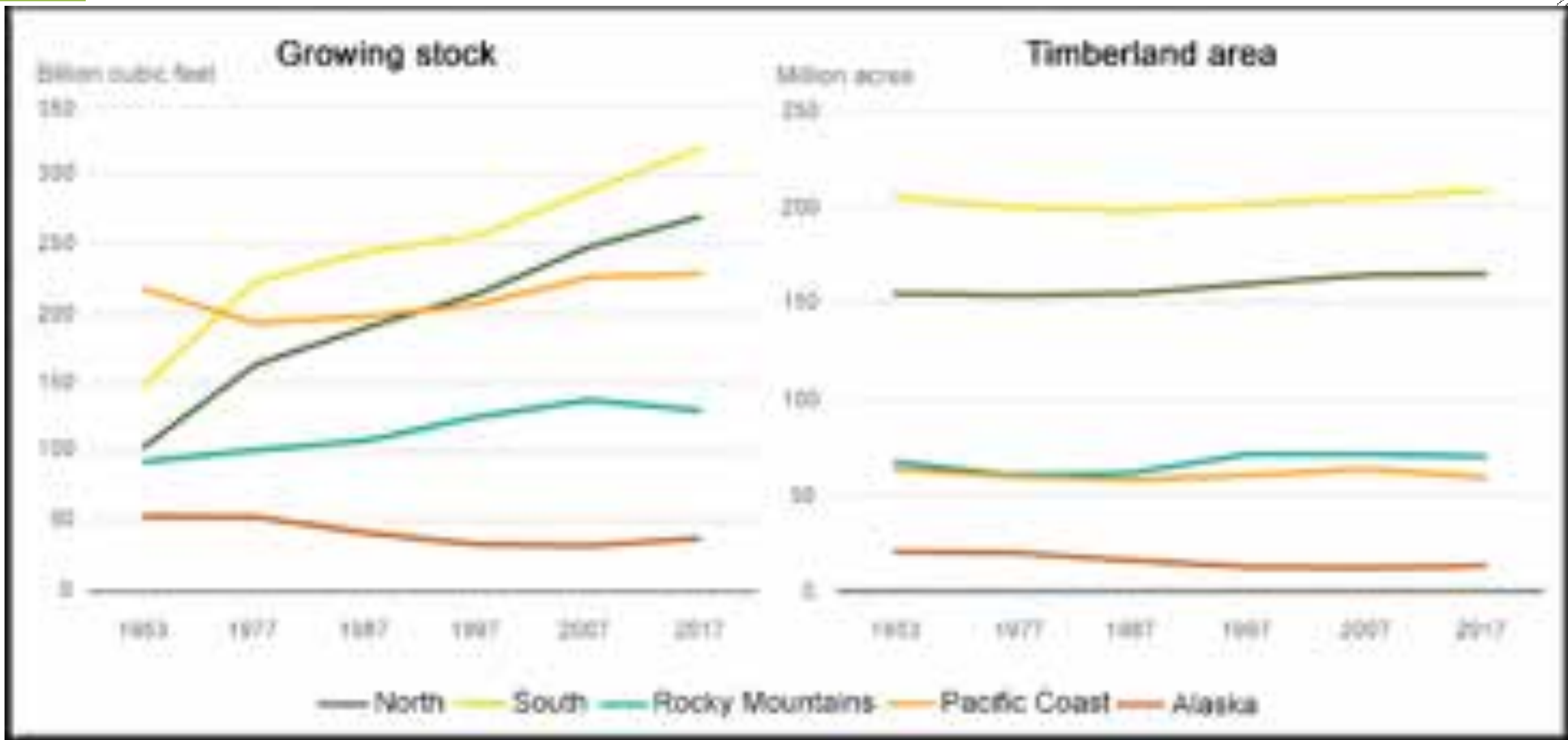
## Billions of cubic feet/ year



Source: USDA - Forest Service, 2013.



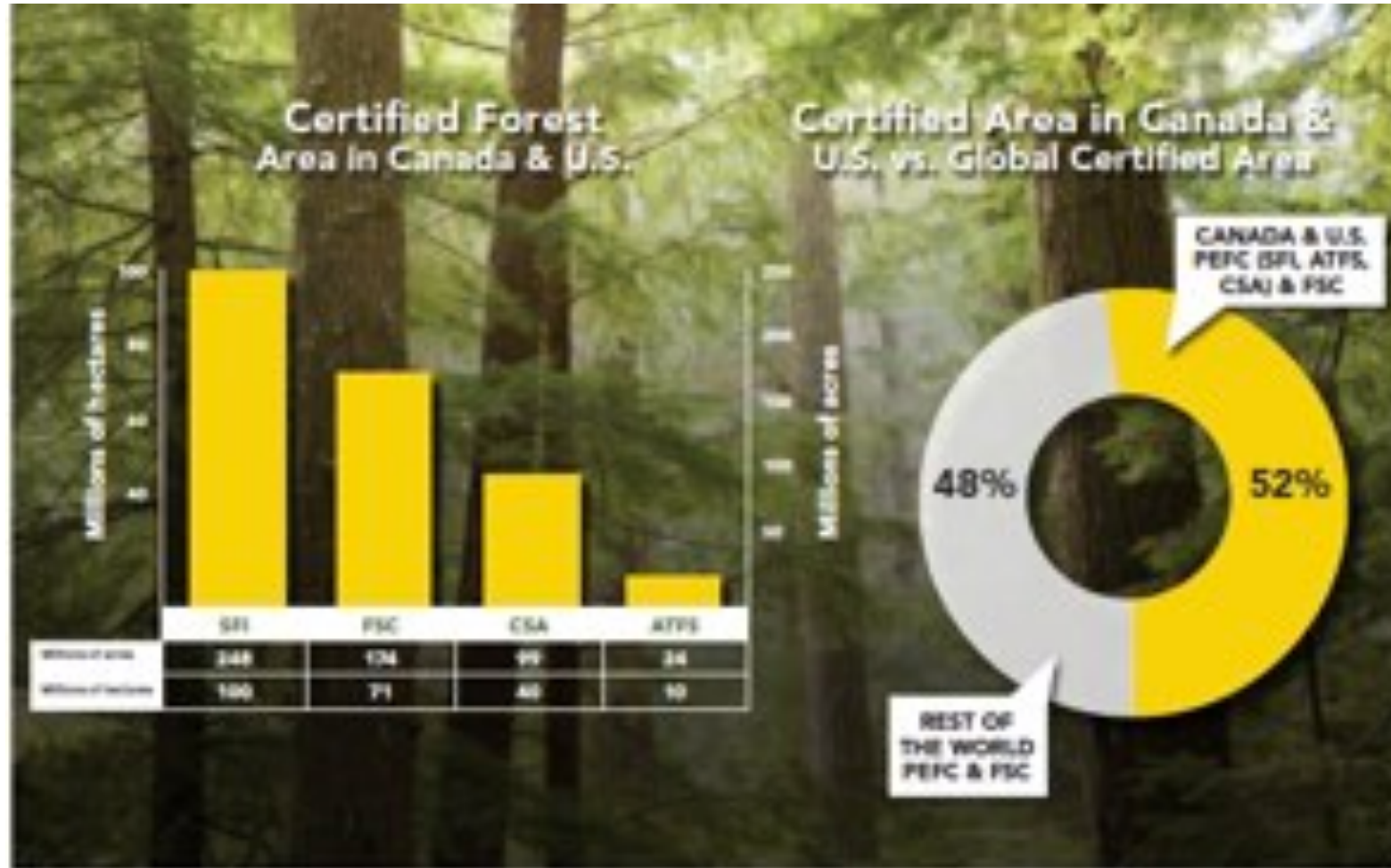
# U.S. growing stock volume, billion cubic feet, and Timberland area, million acres 1953–2017



Source: Oswalt et al. 2018. [https://www.fia.fs.fed.us/program-features/rpa/docs/2017RPAFIATABLESFINAL\\_050918.pdf](https://www.fia.fs.fed.us/program-features/rpa/docs/2017RPAFIATABLESFINAL_050918.pdf)



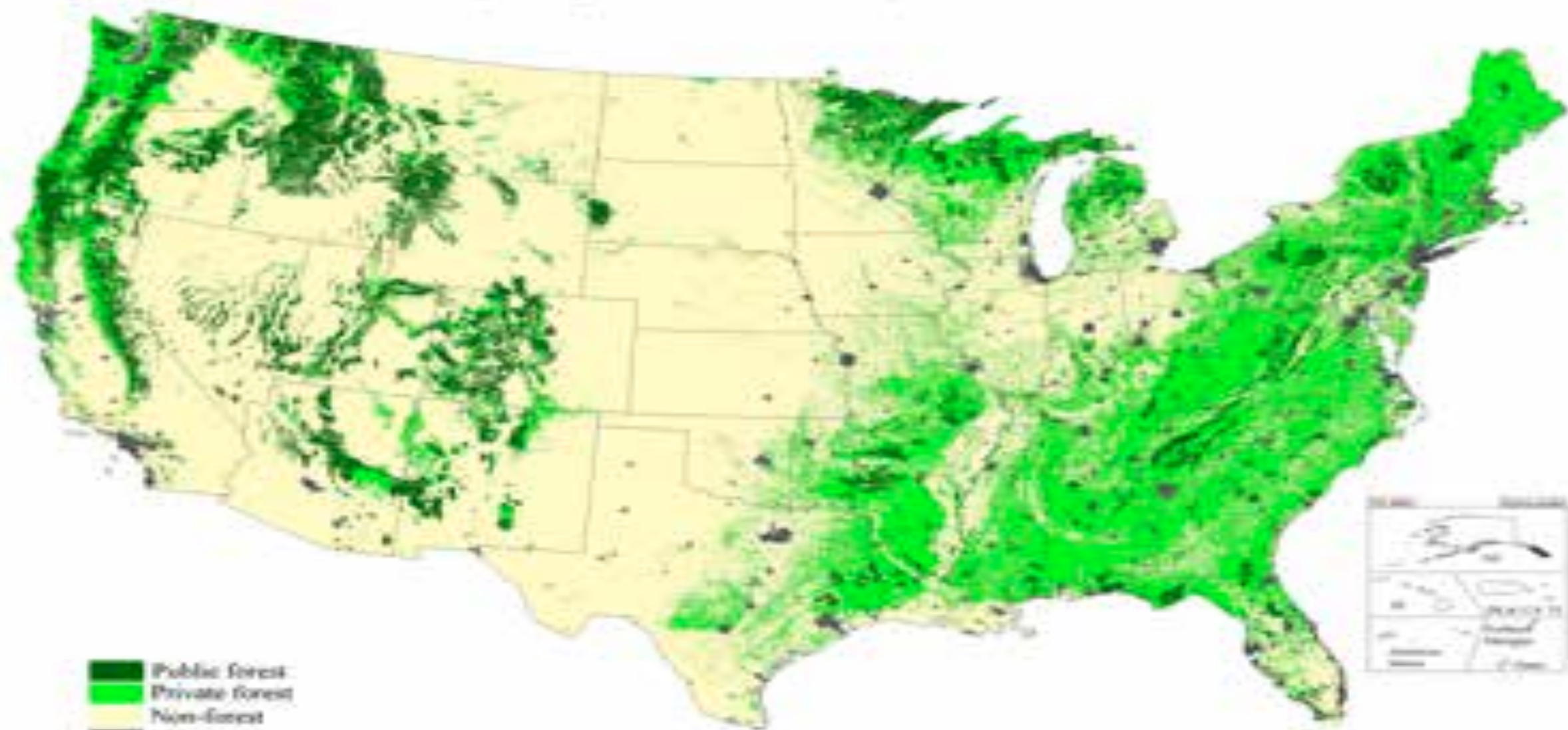
# Forest Certification and Regulations



Sources: [www.sfiprogram.org](http://www.sfiprogram.org), [www.pefc.org](http://www.pefc.org), [www.fsc.org](http://www.fsc.org), [www.forestfoundation.org](http://www.forestfoundation.org)

## Forest Land Ownership

This map displays the basic vegetation (forest vs. non-forest) of the conterminous United States as well as ownership (private vs. public). The lands displayed as "public" include Federal and State lands but do not generally include lands owned by local governments and municipalities.




USDA, Forest Service, State and Private Forestry,  
Cooperative Forestry Unit, Washington Office.



0 50 100 150 200 250 300 miles

Data sources:  
Forest: FRAG (1992)  
Ownership: FAS (2000)  
States: USRI Data & Maps 2002  
Inset map: DCW (1998)





*"...we identified the rise in timber net returns as the most important factor driving the increase in forest areas [in the United States] between 1982 and 1997."*

(Lubowski et al. 2008)





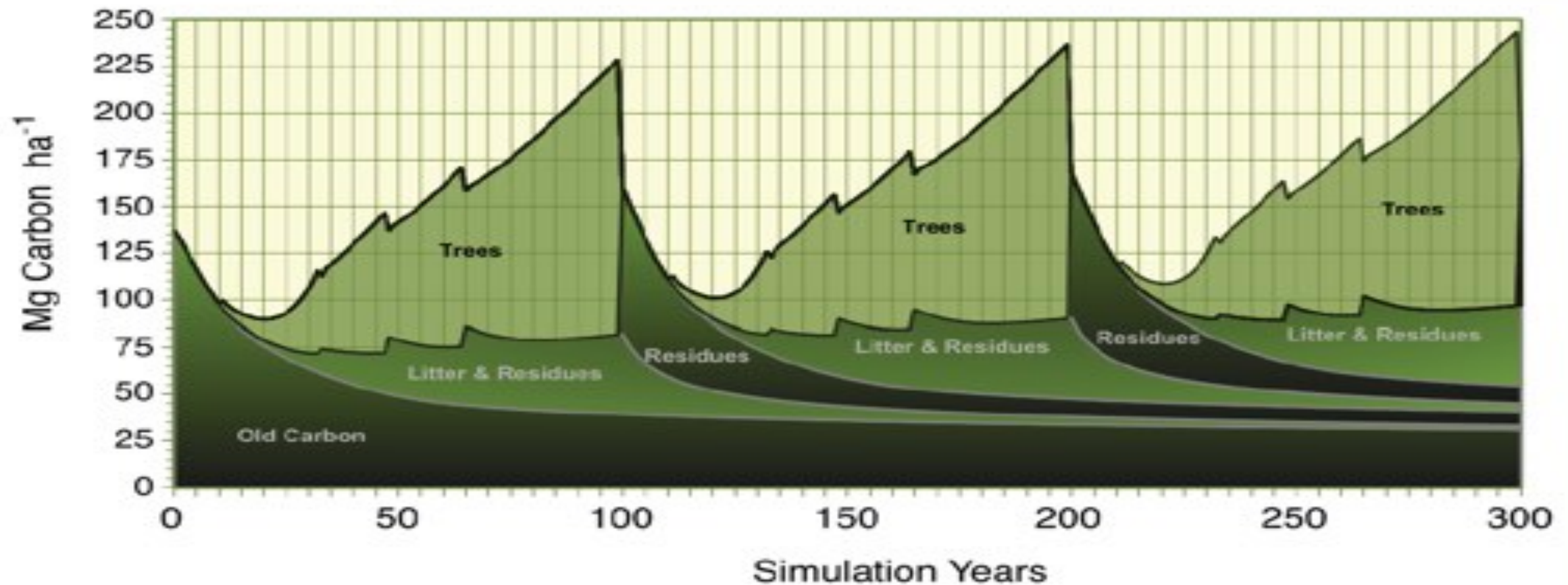
## **Carbon Benefits**

**Forests sequester carbon**  
(climate change mitigation)

**Wood products sequester carbon**  
(wood is 50% carbon by dry weight)



# Forest Carbon flows on a stand-level





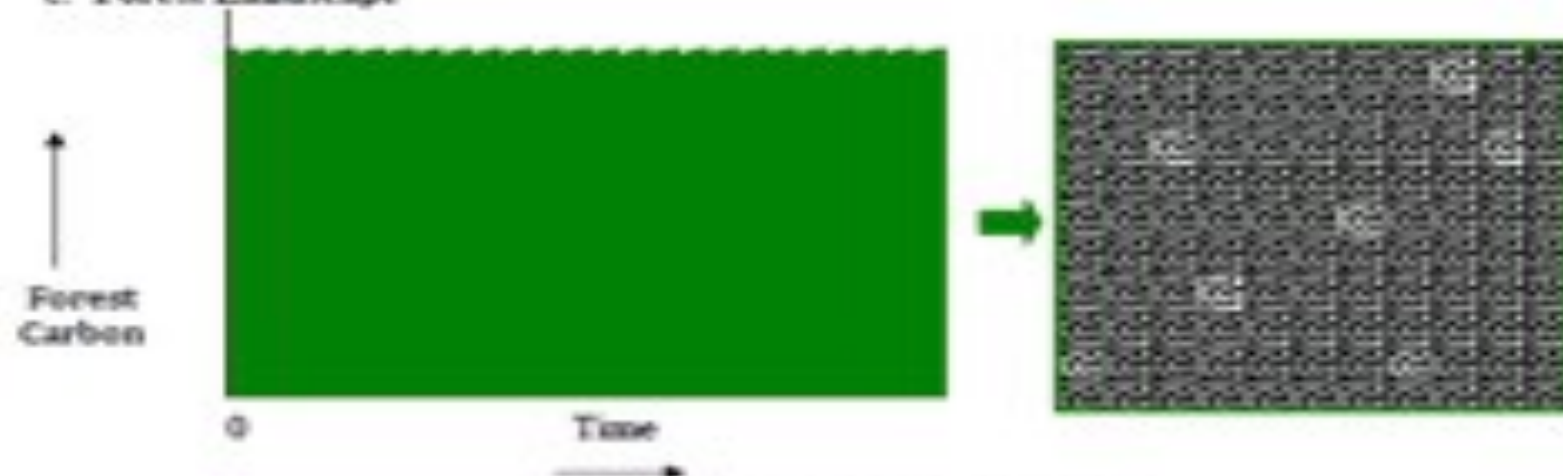
a. Forest Stand



b. Forest Parcel



c. Forest Landscape



Source: Adapted from Colner (2011)



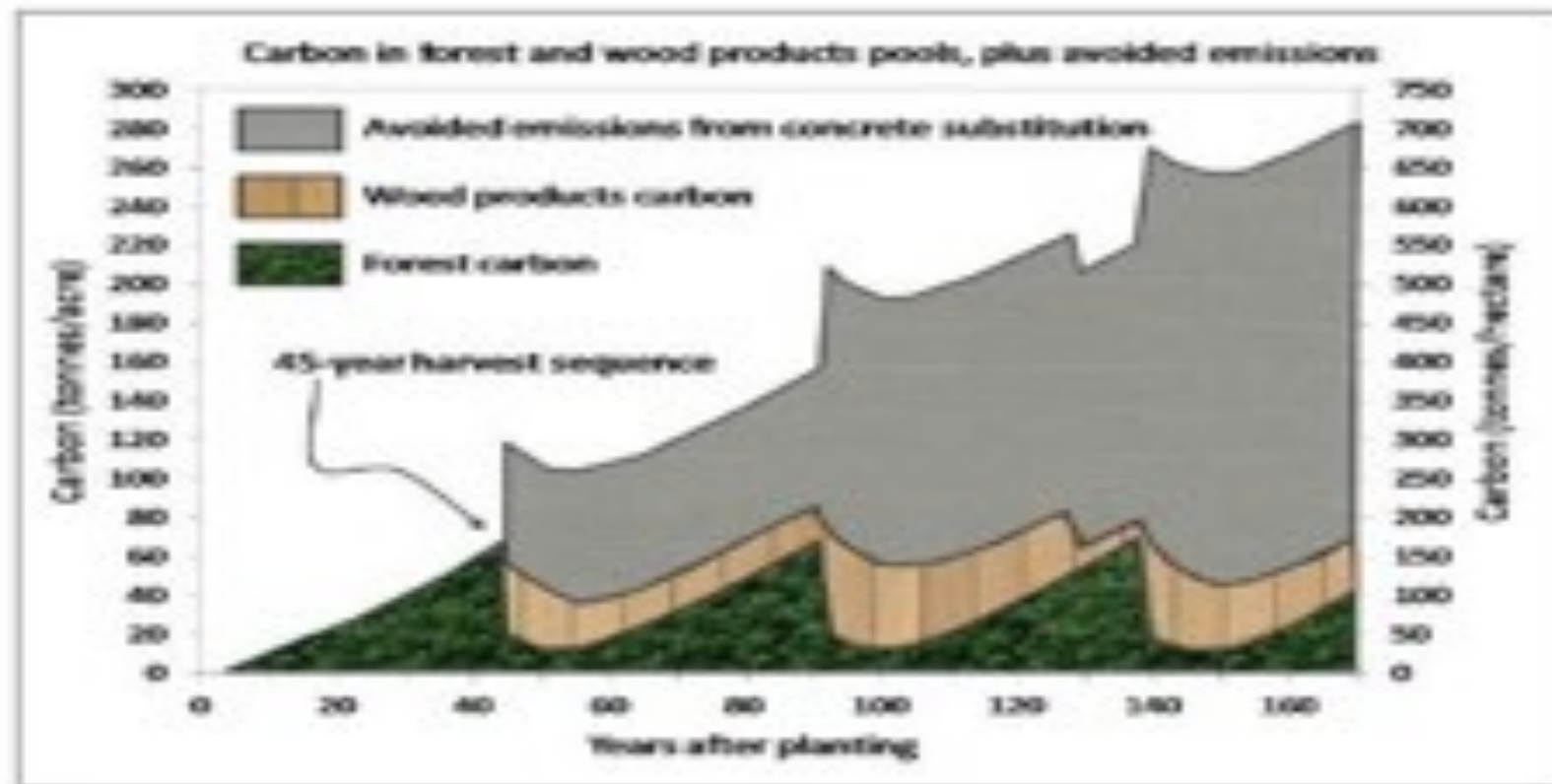
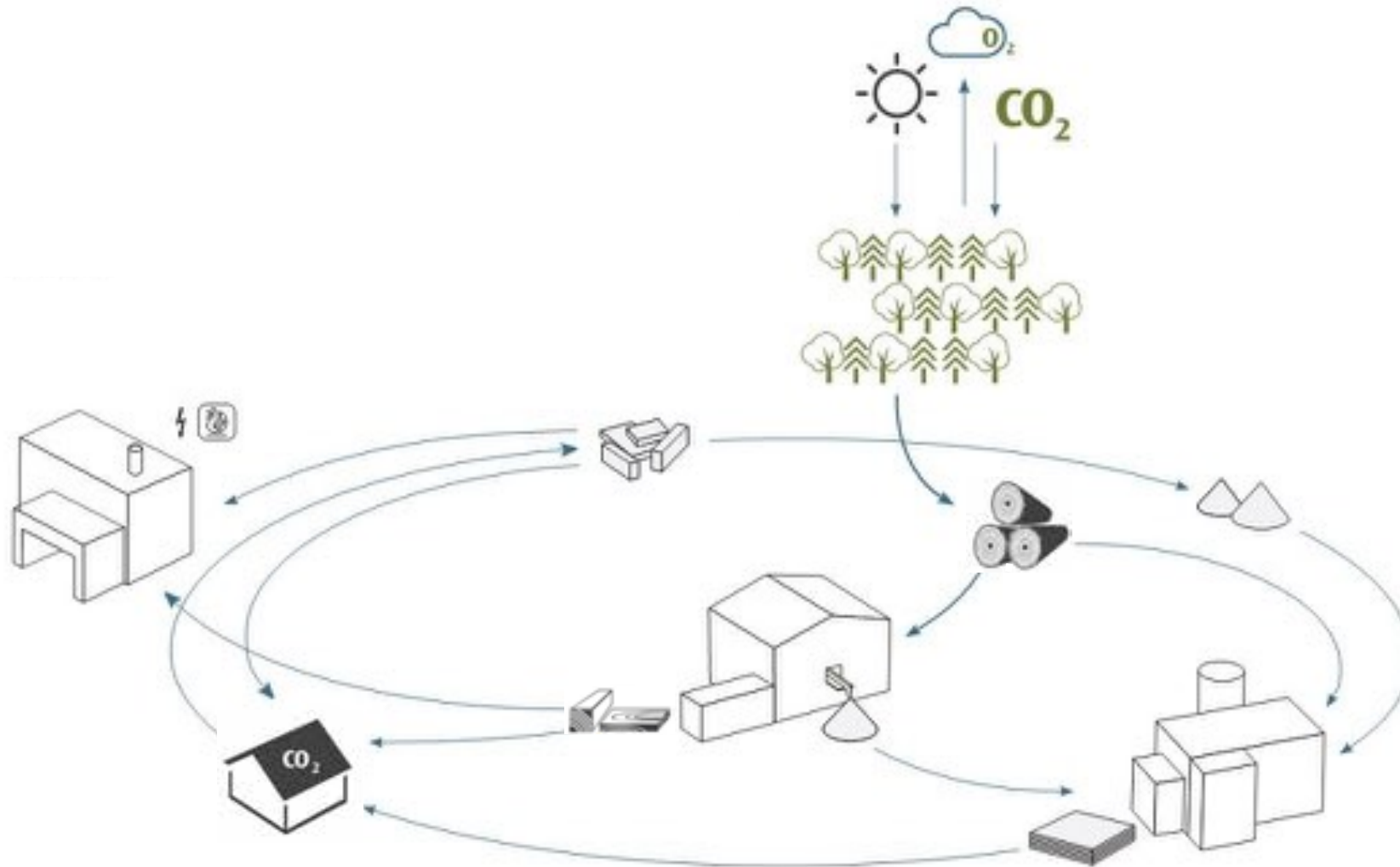


Figure 1. Carbon storage over time under a no-harvest scenario compared to a sequence of 45-year rotation harvest, illustrating additional carbon storage from making and using wood products that substitute for concrete walls in residential housing construction. Diagram courtesy of Jay O'Laughlin, University of Idaho as part of the 2008 Policy Analysis Group on Carbon Sequestration Strategies in the Forest Sector.

# Circularity

## Renewable Resource | Carbon Sequestration



Sustainable Forestry  
supports

**ALL 17 UN SDG Goals**<sup>2,3</sup>



# ESG

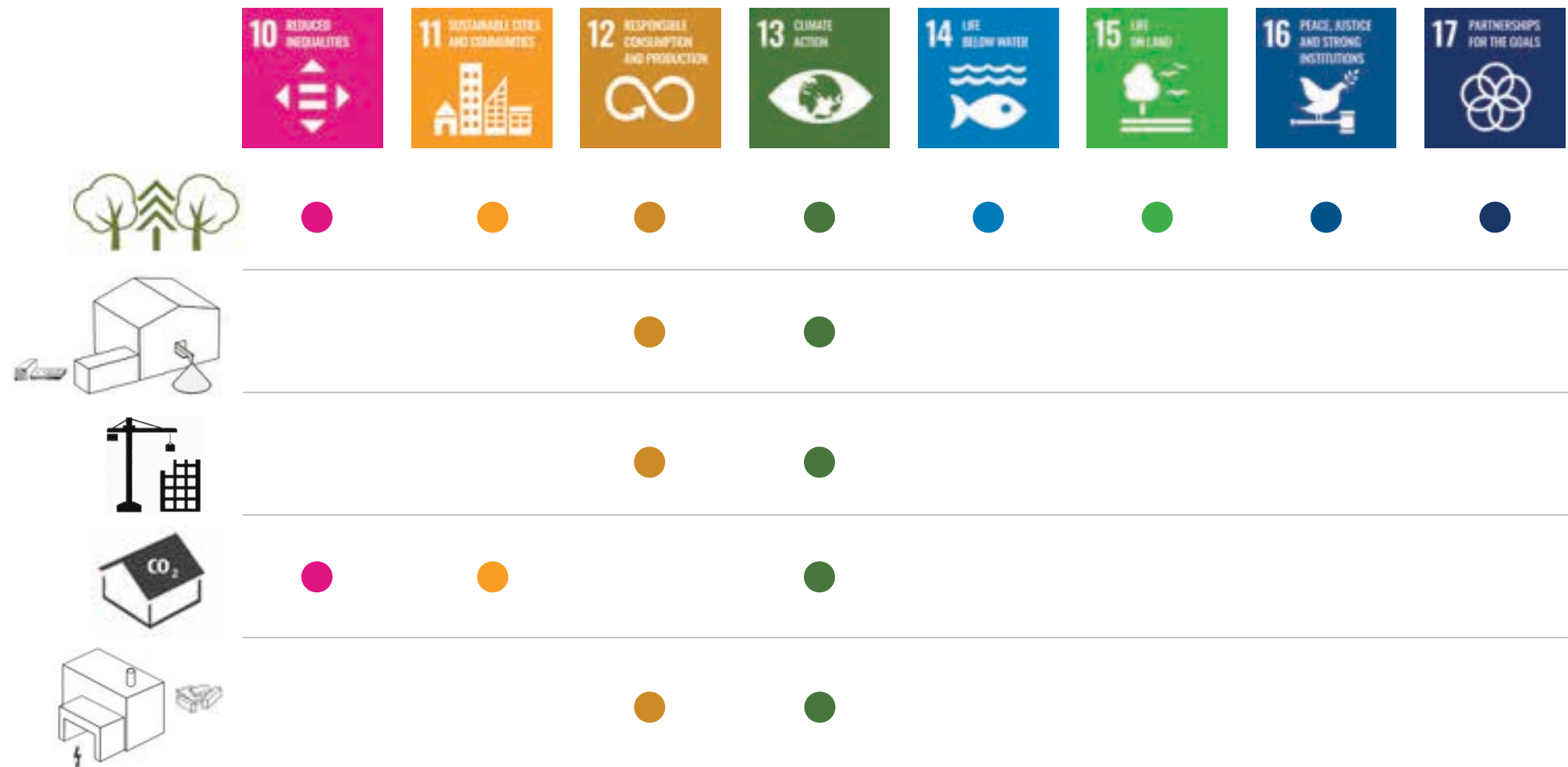
## UN Sustainable Development Goals



Sources: [Sustainable Wood for a Sustainable World global meeting \(SW4SW\) hosted by UN FAO](#)<sup>2</sup>  
[Forests and the Sustainable Development Goals, NYDF Global Platform](#)<sup>3</sup>

# ESG

## UN Sustainable Development Goals









Sources: [Sustainable Wood for a Sustainable World global meeting \(SW4SW\) hosted by UN FAO](#)<sup>2</sup>  
[Forests and the Sustainable Development Goals, NYDF Global Platform](#)<sup>3</sup>



# Long-Term Positive Effects

## Renewable Material | Carbon Storage

		Energy effect	Carbon effect	Value-added effect
	<b>Forest</b>	Stores solar energy	Removes C from Atmosphere	<b>Increases forest value;</b> supplies wood
	<b>Timber</b>	Often local, short transit	C in raw material	<b>Strengthens rural economies</b>
	<b>Lumber</b>	<b>Low embodied energy</b>	<b>Stores C;</b> replaces materials w/ greater C impact	<b>Supports energy independence;</b> strengthens US Forestry
	<b>Wood structure</b>	<b>Low thermal conductivity</b> & bridging	<b>Stores C;</b> reduces insulation / GHG emissions	<b>Cost effective &amp; healthy indoor environment</b>
	<b>Modernization, refurbishment, urban densification</b>	<b>Lightweight</b> & easy to transport	<b>More C storage</b>	Increasing use of prefab; saves resources & retains value
	<b>Demo, recycling, energy recovery</b>	Low energy recycling or emissions neutral energy recovery	Extended C fixation due to recycling	<b>Innovative solutions for circular economy</b>

Source: Building with Wood – Proactive Climate Protection, Dovetail Partners, Inc.<sup>1</sup>

The background of the slide is a photograph of autumn foliage. The leaves are in various shades of yellow, orange, and green, with some branches visible against a bright, slightly overexposed sky. The foliage is dense and fills the entire frame, creating a textured, natural backdrop for the text.

**“In the long-term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fiber, or energy from the forest, will generate the largest sustained mitigation benefit.”**

***- International Panel on Climate Change (IPCC) Assessment Report***





# Conclusions

- North America has the ecology for growing trees, and forest area in the US has been stable for many generations.
- Forests and forest products provide natural climate solutions in the wood and in our built environment and they strengthen our rural economies.
- Strong markets for wood products provide incentives for landowners to keep lands forested.

**Kathryn (Katie) Fernholz**

Dovetail Partners

[katie@dovetailinc.org](mailto:katie@dovetailinc.org)