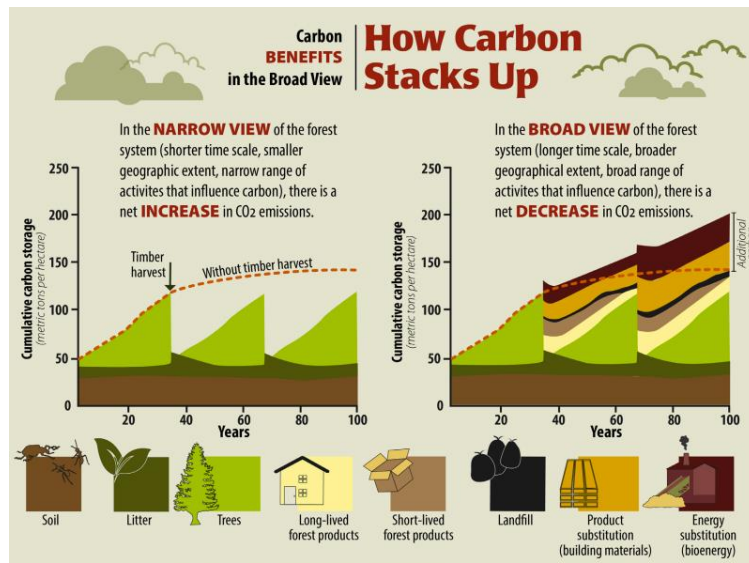


Managed Forests and Wood Products: A Climate Solution

Scientists at the local and international levels, including the **Intergovernmental Panel on Climate Change (IPCC)**, recognize the climate benefits of managed forests, timber harvest, and wood products:

Managed forests with sustained harvests provide the largest sustained climate mitigation benefit: IPCC's 4th Assessment (2018) - *"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."*

<https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg3-chapter9-1.pdf> - page 543



Different perspectives lead to very different conclusions about management activities. Both graphs represent identical treatments on a hypothetical harvest schedule and timber stand. In the narrow view, the carbon stocks never reach the full carbon storage potential of the ecosystem as seen by the no-harvest line. In the broad view, carbon is stored in various product pools and results in a net increase in carbon storage and net decrease in carbon emissions.

reducing emissions in other sectors." <https://www.ipcc.ch/site/assets/uploads/2019/11/SRCCL-Full-Report-Compiled-191128.pdf> - page 21

Chart Source: USDA <https://www.fs.usda.gov/sites/default/files/TimberHarvest-Carbon-3pg-v3.pdf>

Setting aside more working forests in the United States will likely result in more imports of wood products, increased transportation related emissions, and environmental degradation:

IPCC 6th Assessment (2022) - *"carbon storage in wood products and the potential for substitution effects can be increased by additional harvest, but with the risk of decreasing carbon storage in forest biomass when not done sustainably. Conversely, reduced harvest may lead to gains in carbon storage in forest ecosystems locally, but these gains may be offset through international trade of forest products causing increased harvesting pressure or even degradation elsewhere."*

https://report.ipcc.ch/ar6wg3/pdf/IPCC_AR6_WGIII_FinalDraft_Chapter07.pdf - page 84

With global demand for natural resources and building products set to double by 2060, we must increase the use of climate friendly wood products:

"State of the World's Forests", a U.N. Report, forecasts that demand for natural resources will double by 2060 due to increases in population and affluence. Below are key quotes from a co-author of that report, a researcher at Oregon State University:

Wood products store carbon and can be substituted for more energy intensive building materials - providing immediate emission reduction benefits:

IPCC Special Report (2019) -

"Sustainable forest management can maintain or enhance forest carbon stocks, and can maintain forest carbon sinks, including by transferring carbon to wood products, thus addressing the issue of sink saturation. Where wood carbon is transferred to harvested wood products, these can store carbon over the long-term and can substitute for emissions-intensive materials

“It is clearer than ever before that the increased utilization of wood products is critical to reducing global greenhouse emissions but only when these products are derived from sustainably managed forests,” OSU’s [Rajat Panwar](#) said. “Wood products over their life cycle are linked to lower levels of greenhouse gas emissions than products derived from materials that aren’t renewable.”

“Globally, the annual combined consumption of all natural resources is predicted to more than double from 92 billion tons in 2017 to 190 billion tons in 2060 because of increases in population and affluence,” said Panwar, noting that a tonne, also known as a metric ton, is equal to 1,000 kilograms. “Presently, one-quarter of total material demand is met by biomass – that means 75% comes from non-renewable resources.”

Active forest management can also help reduce the size and severity of wildfires, which are a major source of greenhouse gasses.

As reported by the [LA Times](#), California’s record-breaking 2020 wildfire season spewed almost twice the tonnage of greenhouse gases as the total amount of carbon dioxide reductions made in California since 2003 -- according to a study published recently in the journal [Environmental Pollution](#). “Researchers estimated that about 127 million metric tons of carbon dioxide equivalent were released by the fires, compared with about 65 million metric tons of reductions achieved in the previous 18 years.”

On a per acre basis, private landowners in Washington state sequester over 3x more carbon in forests and wood products than federal lands due to high mortality and wildfire on largely unmanaged, older federal forests.

Researchers at the University of Washington recently completed [a study](#) estimating the global warming mitigating role of forests in Washington State, factoring in natural and harvest-induced biogenic carbon flux in the forests and associated biogenic carbon flux in wood products. The study compared the net CO2 sequestration by major landowner type – U.S. Forest Service (USFS), Washington DNR, and private – including the carbon stored in forest and wood products, as well as emissions from wildfire, mortality, and harvest. The study found that 70% of the annual growth of USFS “end up burning or left decaying on the forests floor as dead biomass.”

