

Sustainable Forestry's Next Step: Implementation

A New Definition

New England Forestry Foundation's scientists and foresters propose the following 21st-century definition of sustainable forestry:

“Sustainable forestry is forest management that prioritizes mitigating and adapting to climate change during the next 30 years as a critical aspect of meeting the social, economic, ecological and spiritual needs of current and future generations.”

Implementation

They suggest the following principles to guide successful implementation of this new definition:

1. **Consider impact of management inside and outside the forest** | Maintain or increase in-forest carbon levels at a landscape scale while sustaining or increasing harvest of timber products needed by society that also allow for additional long-term storage of carbon.
2. **Continue forest management under sound climate-smart practices** | Although allowing forests to grow unharvested potentially yields the greatest carbon storage in the forest, but not the rate of carbon removal from the atmosphere as this shows as trees age, studies and modeling have shown a combination of unharvested ecological reserves and well-managed forests that produce renewable, climate-sensitive wood products is the best alternative for the climate. The Intergovernmental Panel on Climate Change agrees.*
3. **Increase carbon storage in the forest while maintaining harvest levels** | Maximum climate benefit is achieved by limiting harvesting to forest stands where, at the end of the time period in question, the combination of the carbon stored in the harvested areas, the carbon stored in product and landfills, and the emissions avoided by substituting wood for other materials exceed the amount of carbon stored in the forest if it were simply left to grow. This must and can be accomplished without compromising other elements of sustainability.
4. **Avoid leakage** | Unless global demand for wood falls and/or there are new materials available that are more climate-smart than wood, reducing wood harvests in a given location merely shifts harvest to another location, and climate benefits are nullified. Maintaining harvest levels through better management and higher per-acre productivity rates allows in-forest carbon stocks to grow while avoiding leakage.

5. **Complement improved forest management with ecological reserves** | Maintaining a system of ecological reserves is essential for any landscape approach to be truly sustainable. These reserves serve ecological roles beyond those provided by managed forests, e.g., the ability to scientifically study natural processes at work. Reserves should be strategically located to maximize landscape scale benefits.

*The Intergovernmental Panel on Climate Change states, "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." Quote taken from "Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems." Access the report at www.ipcc.ch/srccl