

# Report provides new analysis of carbon accounting, biomass use, and climate benefits

November 9 2011

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Substituting woody-residue-sourced bioenergy for fossil fuels confers immediate, and permanent, climate benefits. Credit: S. Jolley

A recent report provides new ideas regarding carbon and energy benefits forests and forest products provide. The report, *Managing Forests Because Carbon Matters: Integrating Energy, Products, and Land Management Policy*, summarizes and analyzes the most recent science regarding forests and carbon accounting, biomass use, and forest carbon offsets.

A team of researchers from the U.S. Forest Service, several universities, and natural resource and environmental organizations coauthored the report, which appears as a supplement to the October/November 2011 issue of the *Society of American Forester's Journal of Forestry*.

"This work should help policymakers reconsider the critical impact forests have on our daily lives and the potential they have to solve problems that confront our Nation," says Bob Malmshemer, lead author of the report and a professor at State University of New York (Syracuse) College of [Environmental Science](#) and Forestry. "We believe our science-based findings should lead toward positive reforms that encourage investment in this vital [renewable resource](#)."



Converting forests to other uses, whether agriculture or housing, leads to carbon emissions and immediate loss of further carbon sequestration. Credit: D. Brown

The report suggests that U.S. environment and energy policies should be based on the following science findings:

- Sustainably managed forests can provide [carbon storage](#) and substitution advantages while delivering a wide range of environmental and social benefits including timber and biomass resources, jobs, [economic opportunities](#), clean water, wildlife habitat, and recreation.
- Energy produced from [forest biomass](#) returns to the atmosphere [carbon](#) that plants absorbed in the relatively recent past; it

essentially results in no net release of carbon as long as overall forest inventories are stable or increasing (as with U.S. forests).

- Forest products used in place of energy-intensive materials such as metals, concrete, and plastics reduce [carbon emissions](#) (because forest products require less fossil fuel-based energy to produce and they also store carbon for a length of time based on their use and disposal), and they provide biomass residuals (i.e., waste wood) that can be substituted for fossil fuels to produce energy.
- Fossil fuel-produced energy releases carbon into the atmosphere that has resided in the Earth for millions of years; forest biomass-based energy uses far less of the carbon stored in the Earth, thereby reducing the flow of fossil fuel-based carbon emissions to the atmosphere.



Keeping forests as forests prevents greenhouse gas emissions. But active forest management provides even more climate benefits. Credit: T. Iraci

"Perhaps this report will inspire fresh efforts to find management strategies that folks can agree on," says coauthor and Forest Service scientist Jeremy Fried. "The forest inventory and analysis data collected by the Forest Service on all forested lands in the U.S. provided the data

necessary to explore how forests can be managed to provide climate benefits. Full life-cycle analyses of U.S. forests show that the best opportunity for these forests to provide even more climate benefits requires a combination of factors. Those factors are: sustainably managed forests, a healthy market for long-lived forest products, and renewable energy generated from forest and mill residues."

**More information:** Read the paper online at [www.safnet.org/documents/JOFSupplement.pdf](http://www.safnet.org/documents/JOFSupplement.pdf)

Provided by USDA Forest Service

Citation: Report provides new analysis of carbon accounting, biomass use, and climate benefits (2011, November 9) retrieved 4 May 2024 from <https://phys.org/news/2011-11-analysis-carbon-accounting-biomass-climate.html>

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