WASHINGTON, Sept. 29, 2011 – The findings of a new U.S. Forest Service study indicate that wood should factor as a primary building material in green building, Agriculture Secretary Tom Vilsack announced today.

The authors of Science Supporting the Economic and Environmental Benefits of Using Wood and Wood Products in Green Building Construction reviewed the scientific literature and found that using wood in building products yields fewer greenhouse gases than using other common materials.

"This study confirms what many environmental scientists have been saying for years," said Vilsack. "Wood should be a major component of American building and energy design. The use of wood provides substantial environmental benefits, provides incentives for private landowners to maintain forest land, and provides a critical source of jobs in rural America."

The Forest Service report also points out that greater use of life cycle analysis in building codes and standards would improve the scientific underpinning of building codes and standards and thereby benefit the environment. A combination of scientific advancement in the areas of life cycle analysis and the development of new technologies for improved and extended wood utilization are needed to continue to advance wood as a green construction material. Sustainability of forest products can be verified using any credible third-party rating system, such as Sustainable Forestry Initiative, Forest Stewardship Council or American Tree Farm System certification.

"The argument that somehow non-wood construction materials are ultimately better for carbon emissions than wood products is not supported by our research," said David Cleaves, the U.S. Forest Service Climate Change Advisor. "Trees removed in an environmentally responsible way allow forests to continue to sequester carbon through new forest growth. Wood products continue to benefit the environment by storing carbon long after the building has been constructed."

The use of forest products in the United States currently supports more than one million direct jobs, particularly in rural areas, and contributes more than $100 billion to the country's gross domestic product.

"In the Rockies alone, we have hundreds of thousands of dead trees killed by bark beetles that could find their way into the building supply chain for all types of buildings," said Forest Service Chief Tom Tidwell. "Taking a harder look at wood as a green building source could reduce the damages posed by future fires, maintain overall forest health and provide much-needed jobs in local communities."
The U.S. Forest Service report identifies several areas where peer-reviewed science can contribute to sustainable green building design and decisions. These recommendations address the following needs for use of wood as a green building material:

- Information on environmental impacts across the lifecycle of wood and alternative construction materials needs to be updated and revised;
- Green buildings codes and standards should include adequate provisions to recognize the benefit of a lifecycle environmental analysis to guide selection of building materials; and
- A lack of educational, technology transfer, and demonstration projects hinder the acceptance of wood as a green building material.

Research recently initiated by the wood products industry in partnership with the U.S. Forest Service Forest Products Laboratory will enable greater use and valuation of smaller diameter trees and insect and disease-killed trees. Research on new products and technologies has been initiated including improved cross-lamination techniques and the increased use of nanotechnology.

These developments are especially important amidst a changing climate because forest managers will need to increasingly thin densely forested areas in the coming years to reduce the impacts from longer and more severe wildfire seasons. Continued research of wood-based products and technologies will contribute to more environmentally responsible building materials and increased energy efficiency.

The mission of the U.S. Forest Service is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations. Recreational activities on our lands contribute $14.5 billion annually to the U.S. economy. The agency manages 193 million acres of public land, provides assistance to state and private landowners, and maintains the largest forestry research organization in the world.

To view the full Green Building report please click here.

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