



I am John Barnwell, Assistant Forest Policy Director for the Society of American Foresters (SAF), and I am here representing more than 14,000 SAF members who are forest managers, consultants, academics, and researchers dedicated to sustainable forest management for balanced and diverse values. I would like to thank Dr. Stallworth, the Science Advisory Board staff, and the EPA SAB Panel for furnishing SAF a few minutes to share our thoughts on this important subject.

In a letter sent to the Senate Environment and Public Works, Senate Energy and Natural Resources, and the Senate Agriculture Committees in July of 2010, 113 scientists working in a variety of research areas from different regions across the United States expressed their reservations about equating biogenic carbon emissions with fossil fuel emissions in the EPA Tailoring Rule. They contended that the draft regulations were not consistent with the best science available and urged the Committee Chairs and the EPA to recognize that forests are the nation's primary source of renewable materials and the second largest source of renewable energy available in the United States. The EPA responded to the concerns of these scientist and others by granting a 3 year deferral for biomass and biogenic stationary sources from the EPA Tailoring Rule. Our members trust that the SAB Panel will be given the time and resources to evaluate all the available science over this review period and provide recommendations.

In May of 2010, SAF leadership also decided that SAF's mission of advancing the science, education, technology, and practice of forestry dictated that they convene a Task Force to analyze the science of forest carbon stocks and flows; climate-forest interactions; biomass use and feedstock issues; wood fossil fuel substitutions effects; and forest carbon policies. A group of nine scientists volunteered their time and worked for over a year to compile and publish the peer reviewed report, *Managing Forests because Carbon Matters: Integrating Energy, Products, and Land Management Policy*, and SAF is excited to have the opportunity to make *Managing Forest because Carbon Matters* available for review by the Science Advisory Board Panel.

The report makes a compelling case for use of woody biomass for energy with important analyses of forest carbon cycling and the direct and indirect benefits of its use. Included in this carbon flow discussion is an investigation of the carbon accounting approach as it relates to forests. The report illustrates how the analysis of carbon flux equations for a single stand of timber is quite different than the equation for a wood supply system. Wood supply system is a term used to refer to multiple stands of timber managed for extended periods of time. Forest managers place emphasis on maintaining site productivity in these areas through responsible management. Site productivity allows for sustained yields and maintains a balance between the growth and removals keeping carbon stock levels essentially unchanged.



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With scale considered, *Managing Forest for Carbon* illustrates the net benefits of using wood to produce energy compared to the energy generated by fossil fuels. When woody biomass is substituted for fossil fuels, a sustained net carbon benefit is attained by avoiding the release of fossil carbon emissions into the atmosphere. The authors show how the carbon emitted from burning woody material has already been accounted for as a loss in the forest carbon cycle when the wood is harvested. Accepting the premise that conditions will remain as they are now and harvests will not exceed net forest growth, biomass for energy production provides a carbon benefit to the atmosphere equal to that of the avoided emissions of fossil fuels minus the small amount of fossil fuel required to produce energy from the biomass feedstock. The research in *Managing Forests because Carbon Matters* shows that if biomass is considered a renewable resource and prior CO<sub>2</sub> uptake in the growth cycle is represented in the emissions calculation, burning biomass to generate electricity produces 4% of the emissions of a coal fired power plant.

The three year deferral period will allow the Panel the time necessary for a detailed examination of all the technical issues and the science and research associated with the CO<sub>2</sub> emissions from these renewable energy sources. The SAF membership is proud to submit *Managing Forests because Carbon Matters: Integrating Energy, Products, and Land Management Policy* as one source of current research for SAB Panel review. SAF is confident that this group will devise a practicable and reasonable CO<sub>2</sub> accounting method for emissions from biomass and biogenic stationary sources for new renewable energy sources supported by science. Thank you all for the opportunity to speak with you this morning.