



**Statement of the National Alliance of Forest Owners
Senate Committee on Agriculture, Nutrition and Forestry
Hearing entitled, “The Role of Agriculture and Forestry in Global
Warming Legislation.”
July 22, 2009**

I. Introduction

The National Alliance of Forest Owners (NAFO) is pleased to submit comments to the Senate Committee on Agriculture, Nutrition and as it considers climate change and energy legislation. NAFO is an organization of private forest owners committed to promoting Federal policies that protect the economic and environmental values of privately-owned forests at the national level. NAFO membership encompasses 75 million acres of private forestland in 47 states. NAFO members are well positioned to help our nation in the development of approaches that utilize private working forests, and the products they produce, as a critical tool in fashioning solutions to climate change and energy independence.

To provide some context, forests in the United States, nearly 60 percent of which are privately owned, sequester almost 200 million metric tons of carbon (CO₂) each year,¹ offsetting about 10 percent of annual U.S. emissions from burning fossil fuels.² According to the Environmental Protection Agency (EPA), this amount represents 84 percent of the carbon sequestered by all land uses.³ An appropriately crafted offset system that accounts for the sequestration and storage capabilities of responsibly managed working forests and harvested wood products in an industrial emissions offset

¹ US Environmental Protection Agency. 2007. *Inventory of U.S. greenhouse gas emissions and sinks: 1990-2005*. EPA 430-R-07-002.

² Birdsey, R., K. Pregitzer, and A. Lucier. 2006. Forest carbon management in the United States: 1600-2100. *J. Environmental Quality* 35: 1461-1469.

³ US Environmental Protection Agency. 2007. *Inventory of U.S. greenhouse gas emissions and sinks: 1990-2005*. EPA 430-R-07-002.

marketplace can play a significant role in helping the nation address greenhouse gas (GHG) emissions, and do so in a way that reduces the overall cost of achieving mandatory emissions reduction targets. The essential elements of a national climate change and energy policy that appropriately incorporate the contributions of working forests are outlined in Section VI below.

I. Responsibly managed private forests play a key role in sequestering carbon.

The basic proposition that responsibly managed forests play a critical role in sequestering carbon is beyond dispute. The EPA, in considering approaches to address climate change, has recognized that responsibly managed forests are considered one of five key “groups of strategies that could substantially reduce emissions between now and 2030.”⁴ Similarly, the Intergovernmental Panel on Climate Change (IPCC) report on mitigation technologies highlights forest management as a primary tool to reduce GHG emissions.⁵ Indeed, the IPCC contends that, “[i]n the long term, a sustainable forest management strategy aimed at maintaining or increasing forest stocks, while producing an annual sustained yield of timber, fibre or energy from the forest, will generate the greatest mitigation benefit.”⁶ The following graphic illustrates this work (the “IPCC Managed Forest Graph”):⁷

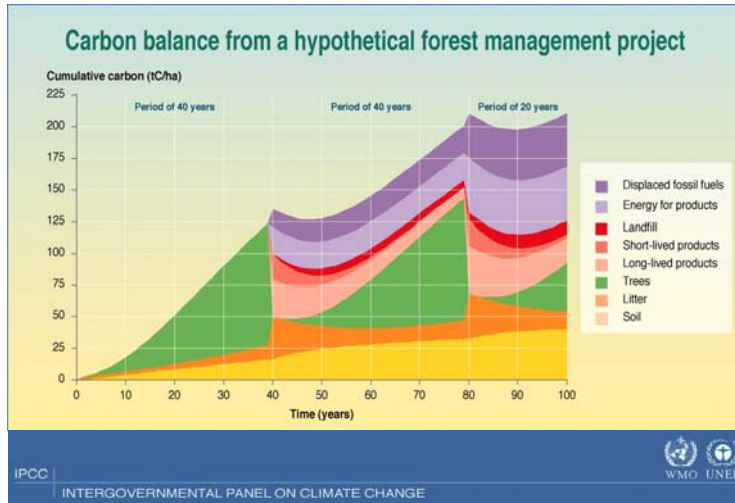
(see chart on next page)

⁴ Regulating Greenhouse Gas Emissions Under the CAA, 73 Fed. Reg. 44,354, 44,405 (July 30, 2008).

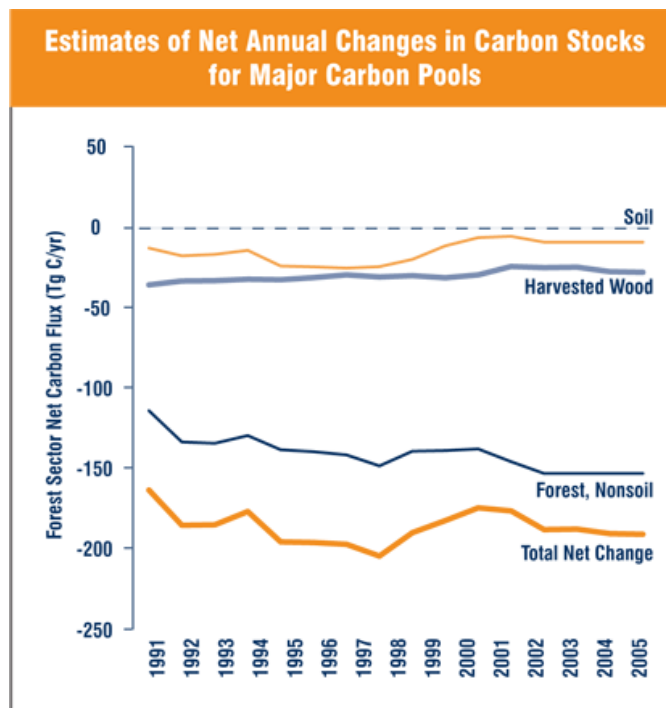
⁵ *Id.* at 44,405-06.

⁶ Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (eds)], Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, page 543.

⁷ Climate Change 2001: Mitigation. Contribution of Working Group III to the Third Assessment Report of the Intergovernmental Panel on Climate Change, Technical Summary, Section 4.1, Figure TS-6 (2001).



Private forests in the United States are already a valuable and multifaceted tool in the effort to reduce U.S. greenhouse gas emissions and remove carbon dioxide from the atmosphere. As the following EPA chart demonstrates, managed forests and harvested wood products in the United States provide a significant carbon sink:



EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2006.⁸

⁸ Available at USEPA #430-R-08-005, <http://www.epa.gov/climatechange/emissions/usgginventory.html>.

As EPA has explained, “[o]verall, forestry, land use and land-use change activities are considered ‘sinks,’ absorbing carbon dioxide from the atmosphere through a process known as carbon sequestration. In 2006 these activities resulted in removing 883.7 MMTCO₂e (240.8 MMT Carbon) from the atmosphere.”⁹ Despite these impressive figures, as described below there are significant further opportunities for forests to contribute to an offset system through the sequestration and storage of greater amounts of carbon.

II. A successful market based mechanism for controlling GHGs must consider the opportunities provided by responsibly managed forests.

A climate change program focused on reducing GHG emissions through market mechanisms that generate credits should include offsets from responsibly managed domestic forests and harvested wood products.

Private forests long have been recognized as a source of real, verifiable reductions in GHGs. Most established GHG trading regimes credit forestry activities. For example, trading platforms and registries that recognize forest management include the Chicago Climate Exchange (“CCX”) and the Voluntary Carbon Standard (“VCS”). The Regional Greenhouse Gas Initiative (“RGGI”) and the Western Climate Initiative (“WCI”) both intend to consider forest management offsets in the very near future.¹⁰ NAFO is cautiously encouraged that the California Air Resources Board has initiated work by the Climate Action Reserve (CAR) to revise its forest project protocol to encourage greater participation by managed forest owners. NAFO is also participating with a broad array of U.S. and Canadian stakeholders to develop an international forest project standard for measuring carbon from forest projects that will be compliant with

⁹ EPA Technical Support Document for Stationary Sources at 39 (June 2008).

¹⁰ In contrast, the United Nation’s Clean Development Mechanism (“CDM”), does not allow credits for forest management but limits credits to afforestation or reforestation. This approach has produced very few projects in the forestry area due to unnecessary restrictions in the program. By comparison, the Voluntary Carbon Standard, a global consortium dedicated to improving standards and programs for offsets, has proposed potential standards for forestry management.

the requirements of the American National Standards Institute (ANSI) and its Canadian counterpart.

Given the scope of emissions reductions that can result from improved forest management both domestically and in developing countries, it is important that managed forests and harvested wood products play a role in future national and international offset programs. Generating credits from responsibly managed forests and harvested wood products, and allowing the trading of such credits, affords both regulators and industry significantly greater flexibility in determining how to achieve overall net GHG reductions.

For example, while it may not be economically or technologically feasible for a utility to reduce its GHG emissions for several years, acquiring forest offset credits could have the dual benefit of helping the utility achieve compliance in an economically efficient way until it can enact its own GHG controls while also encouraging strong long-term forest management practices that lead to further GHG reductions in the future. In this way, forests provide an extraordinary opportunity to create a multi-faceted national program that promotes both immediate and sustainable long-term GHG reductions.

Importantly, under appropriately constructed policy, the forest sector could be in a position to immediately participate in an offset program, thus helping ensure the successful start-up of a market oriented mechanism. Promoting policies that encourage emitters to work voluntarily with the private forest sector to offset their GHG emissions will enable the nation to attain emission goals in a cost-effective manner and at the earliest opportunity.

NAFO recognizes that no protocol or registry is perfect. However, that should not distract from the role that responsible forest management and harvested wood products can play in reducing GHG levels and the greater flexibility they offer to achieve net GHG reductions in a cost-effective manner. Policies should seek to encourage and credit such benefits when seeking to achieve GHG reductions economy wide.

III. A broad range of forest management activities are available for inclusion in an offset system.

Managed forests in the United States present a clear opportunity to reduce atmospheric CO₂ and mitigate GHG emissions. Available forest management activities that can aid in reducing greenhouse gas emissions include afforestation, reforestation, conservation and the production of harvested wood products. Research on private forestlands has shown that more intensively managed forests and the products they produce can sequester and store as much as 150 percent more tons of carbon per acre than less intensively managed forests.¹¹

Products like building materials, furniture and other consumer goods made of wood harvested from working forests also are an important means of storing carbon over long periods. The EPA estimates that the amount of carbon stored annually in forest products in the United States is equivalent to removing more than 100 million tons of CO₂ from the atmosphere every year.¹² Independent studies show that wood products used in building construction store more carbon and use less fossil fuels than other materials, such as steel and concrete. Wood framing in a home, for example, produces 26 percent less net CO₂ emissions than steel and 31 percent less than concrete.¹³

IV. A sound offset system that promotes forest markets will enhance the carbon benefits of private forests over time.

NAFO's members represent more than 75 million acres of private forest lands covering every region of the country. These forests are managed according to state-

¹¹ *Carbon Sequestration in Californian Forests; Two Case Studies in Managed Watersheds* by Dr. Cajun James, Dr. Bruce Krumland, and Dr. Penelope Jennings Eckert, December 12, 2007. http://www.spi-ind.com/html/forests_research.cfm.

¹² US Environmental Protection Agency. 2007. *Inventory of U.S. greenhouse gas emissions and sinks: 1990-2005*. EPA 430-R-07-002.

¹³ Perez-Garcia et al. *The environmental performance of renewable building materials in the context of residential construction*. Wood and Fiber Science CORRIM Special Issue 37:3-17.

based water quality best management practices, state forestry regulations and standards, third party certification programs and contracts and agreements that ensure long-term forest renewal and strong environmental protection. At the same time, forest owners depend on economically viable markets for products and services to continue making investments in good stewardship and to maintain working forests on the landscape over the long term.

An offset policy that supports existing markets and promotes new and emerging markets for forest carbon will help maintain and strengthen the forest land base over time, thereby continuing its contributions toward reducing nationwide GHG levels. This includes the development of new sources of domestic renewable energy, such as electricity from forest biomass and cellulosic biofuels that take advantage of the carbon mitigation benefits of forests to help maintain a low carbon economy.

V. Forest biomass is a renewable energy that is an important part of the climate change solution. An inclusive definition of renewable forest biomass is essential to realizing the benefits private forests can provide.

Wood is a dependable and plentiful domestic renewable energy resource that can be utilized for energy production through a variety of processes like biomass generation, wood gasification and conversion to cellulosic biofuels. Wood, wood residuals and other plant material can be utilized to produce steam and heat hot water boilers. Steam can be converted to electrical power by turbines or used to heat buildings through piping distribution networks. Newer “wood gasification” technologies heat wood in an oxygen-starved environment, collect gases from the wood and later mix the gases with air or pure oxygen for combustion. Wood gases can be cooled, filtered and purified to remove pollutants and used as fuel for internal combustion engines, micro-turbines and gas turbines.

The use of wood from responsibly managed forests for electrical and thermal energy production is carbon neutral. The EPA has concluded that there is “‘scientific consensus’... that the carbon dioxide emitted from burning biomass will not increase CO₂ in the air if it is done on a sustainable basis.”¹⁴ This position is supported not only by the IPCC, but also by the Energy Information Administration (EIA), the World Resources Institute (WRI) and other credible scientific bodies.

Wood used to produce transportation fuels also has a very favorable carbon footprint. The EPA has determined that for every BTU of gasoline replaced by cellulosic ethanol, the total lifecycle GHG emissions that would have been produced from that BTU of gasoline would be reduced by 92.7 percent¹⁵.

In order for forest biomass to make its full contribution to producing low carbon energy, definitions of qualifying renewable energy feedstocks should provide a level playing field for market access across all feedstock sources, including wood, and encompass the full range of forest biomass, including trees and other plants, forest residuals (e.g., tops, branches, bark, etc) and byproducts of manufacturing (e.g., sawdust, bark, chips, dissolved wood retrieved from the paper-making process, etc). Presently there are at least four different definitions of qualifying forest biomass in federal statute¹⁶. This adds complexity and confusion to project developers, biomass producers and federal program administrators who are required to determine how the various, and at times conflicting, definitions interact with one another.

Appropriately including forest biomass in a renewable electricity standard would take full advantage of its carbon mitigation benefits in the energy context. Likewise, a policy that discourages forest biomass utilization will forfeit such benefits, particularly in

¹⁴ U. S. Environmental Protection Agency Combined Heat and Power Partnership. *Biomass Combined Heat and Power Catalog of Technologies*, 96 (Sept. 2007) available at www.epa.gov/chp/documents/biomass_chp_catalog.pdf.

¹⁵ U.S. Environmental Protection Agency. April 2007. *Regulatory Impact Analysis for the Renewable Fuels Standard Program*. EPA 420-R-07-004.

¹⁶ Separate definitions of eligible forest biomass can be found in Section 45 (c)(3) of the Internal Revenue Code (26 U.S.C. 45(c)(3)); Section 203(b)(1) of the Energy Policy Act of 2005 (42 U.S.C. 15852(b)); Section 201(1)(I) of the Energy Independence and Security Act of 2007 (42 U.S.C. 7545(o)(1)(I)); and Section 9001(13) of the Food, Conservation, and Energy Act of 2008 (7 U.S.C. 8101 (12)).

areas where fossil fuels are the predominant source of energy production and where alternative forms of renewable energy, such as wind, solar and geothermal are not viable options.

VI. NAFO has several suggestions for inclusion in any national climate change and energy policy.

Based on our experience in forest management and the forest products sector, the following should be included in any national climate change policy:

- **The U.S. Department of Agriculture should serve the key role with respect to agricultural and forestry offset projects.** The USDA has critical expertise to bring to the development of methodologies and processes for crediting offset projects in the agriculture and forestry sectors. Indeed, Congress already recognized such a role for the USDA in last year's Farm Bill. Like Section 2709 of the Food, Conservation, and Energy Act of 2008, climate change legislation should place primary responsibility on USDA to establish technical guidelines and regulations to assess offsets from forest projects, including approving eligible project types, establishing project protocols and certifying specific projects.
- **Climate change legislation must identify eligible offset projects at the outset.** The initial years of a cap and trade system will be critical to the long term success, and a vigorous and vibrant source of offsets is necessary to implementation during these critical early years. These include forest management activities that increase carbon stocks, harvested wood products, afforestation and reforestation and avoided deforestation. Any offsets program should be open, inclusive and establish a level playing field for all project types.
- **Offset provisions should ensure early offset availability.** To ensure that offsets are available during the outset of the cap-and-trade program, any climate legislation must give offset project developers as much early guidance and certainty as

possible so they can attract investment and develop projects in time for the first compliance periods. Congress should direct relevant agencies to begin developing regulatory frameworks immediately, should significantly shorten the deadlines for action for developing such regulations and should streamline various other procedures to make offsets available as soon after enactment as possible. Legislation also should fully encompass offsets generated by well established programs.

- **The definition for renewable forest biomass should be broad and inclusive.** The most effective definition for eligible renewable forest biomass was enacted by Congress in the 2008 Farm Bill. The House captured this definition well in H.R. 2454, and the Senate should adopt the same definition.

VI. Conclusion

NAFO appreciates this opportunity to provide input on the important opportunities private working forests provide to reduce atmospheric concentrations of GHGs. Working forests work to sequester carbon and are undisputed in serving as a critical carbon sink. In order to be effective, any market based mechanisms for controlling GHGs must incorporate working forests and the broad array of management activities associated with them. This will enhance the carbon benefits provided by working forests and better enable our nation to achieve its overall climate change objectives.

NAFO looks forward to further discussions with this Committee and other policy makers in the Senate as work progresses on comprehensive climate change legislation.