

# Carbon, Forests and Markets

SFI Annual Meeting 2010  
Vancouver, BC

Michael Goergen  
Executive Vice President and CEO

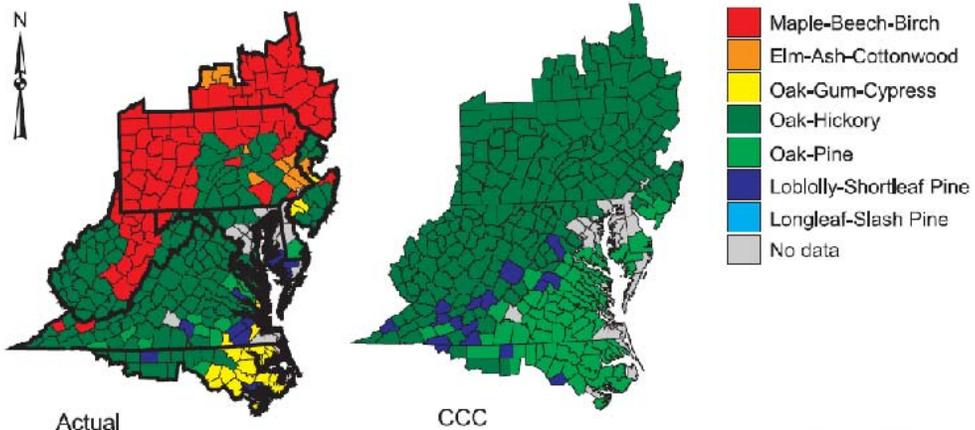


## Forests' Roles in Climate Change

- Depending on how they are managed, forests can be carbon sinks or sources
- Policies must recognize all of the ways forests and forest products can address GHG emissions
- Current management on public lands may lead to deterioration of carbon sequestration
- Adaption and resilience are critical issues facing forest managers and owners
- Forests can sequester carbon now
  - And these same forests can still provide recreation, water quality, wildlife habitat, aesthetic benefits



# Why Foresters are Looking For Solutions



Society of American Foresters

# SAF Report on Forests and Climate Change

## Forest Management Solutions for Mitigating Climate Change in the United States

Robert W. Maloshesmer, Patrick Heffernan, Steve Brisk, Douglas Crandall, Fred Donike, Christopher Guik, Edmund Gee, John A. Hales, Nathan McClure, Michael Mortimer, Steve Ruddell, Matthew Smith, and John Stewart

### About the Authors

**Robert W. Maloshesmer**  
Lead Fore Co-Gen. Associate Professor of Forest Policy and Law, SUNY College of Environmental Science and Forestry, Syracuse, New York  
Maloshesmer has been a professor at SUNY ESF since 1979 and teaches courses in natural resources policy and environmental and natural resources law. His research focuses on how laws and the legal system affect forest and natural resources management, including how climate change and carbon sequestration policies affect forest and natural resources. Prior to becoming a professor, Maloshesmer practiced law for six years. He has a Ph.D. in forest policy from SUNY ESF, a J.D. from Albany Law School, and a B.S. from SUNY ESF. He was the 2007 chair of the SAF Committee on Forest Policy and served on the committee from 2003 to 2007. He has served on numerous national and state SAF committees and task forces.

**Patrick Heffernan**  
Task Force Co-Chair, President, SAFPE Inc., Chicago, Illinois, Missouri  
Heffernan began his career in forestry in 1976 and graduated with a natural resources degree from the Cambridge College of Agriculture and Forestry in 1981. He has

received a variety of forestry scholarships in State forests and the United States and is now past owner and manager of an experimental private forest in New Zealand. He has been an SAF member since 1995, served as chapter and state chairs in Missouri, and is currently on SAF's National Policy Committee. He was involved during the formative years of what has become the National Carbon Offset Coalition, whose his research in promoting voluntary solutions to forest carbon sequestration pointed an approach for voluntary non-private productivity calculations as a sound basis for forestry carbon credit markets.

**Steve Brisk**  
The President Public Resource, California Forestry Association, Sacramento, California  
Brisk has been with the California Forestry Association since July 2005. He organizes most of the continuing educational information and many of the managing business professionals in the state. He focuses on timber and biomass wood supply from the national forests, which average 50 percent of the state's productive forestland. Since 2007, Brisk has focused on forest carbon sequestration, carbon life-cycle modeling, forestry practices, and the potential of renewable energy credits for forest landowners, wood manufacturing facilities, and bio-

mass for power generation. He graduated from the University of California at Davis with a degree in civil engineering. Prior to joining the California Forestry Association, he spent 30 years with the US Forest Service.

**Douglas Crandall**  
Director of Legislative Affairs, US Forest Service, Washington, DC  
Crandall is currently director of Legislative Affairs for the US Forest Service. Previously, for eight years, he was the staff director for the US House of Representatives Subcommittee on Forests and Forest Health, with jurisdiction over most legislation and proposals concerning the Forest Service and Bureau of Land Management. He also served with the Society of American Foresters as policy director, the National Forest Foundation as vice president, and the American Forestry and Paper Association as director responsible for national forest issues. Before he became the staff director, he spent 30 years managing a timber company in Livingston, Montana, and four years on the Endless Mountains State and Forest and Range plan, then as a physical wild manager. Doug graduated with a B.S. in Forestry from Oregon State University. He has been a member and officer of numerous forestry, industry, conservation, and community organizations.

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Report Published in 2008 April/May JoF, later as a book

SAF has established a follow up Task Force on Biomass Energy



## Securing Additional Value

- Ecosystem service markets present opportunity for forests and landowners
- Water, wildlife, recreation and most prominently, carbon offset credits
- Obviously, traditional markets offer the best returns
- Always looking for opportunities to boost returns both from lands and products



Water and biodiversity trading markets are less mature at this time, carbon markets are growing at exponential rates, resulting in a wave of interest and exploration in the forestry community

## Half Empty or Half Full?

- Limited opportunities currently exist for forest landowners interested in participating in carbon storage efforts
- There are burdens and risks for participation
  - Fire, insects, other losses, easements, contract length, change in silvicultural regime, additional scrutiny, etc.
- International community not focused on developed countries
- For SFI certified companies considering a carbon offset project, there may be efficiencies to be gained through alignment of the verification that will need to occur for each effort.



THE BEATINGS WILL  
CONTINUE



UNTIL MORALE IMPROVES

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## Compliance Carbon Trading Markets

- Remains uncertain in the United States
- The U.S. House of Representatives passed a cap and trade bill in 2009 (Waxman Markey)
- The U.S. Senate did not pass similar legislation and it is extremely unlikely this year
- Regulatory activity remains a strong possibility, so far haven't treated forestry well, unlikely to include cap and trade opportunities
- CAR: Climate Action Reserve



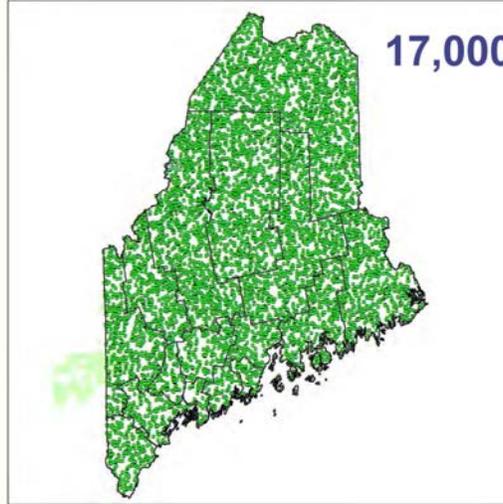
Senate likely to stay with the democrats, but Republicans likely to pick up 6 to seven seats leaving 50 to 51 democrats and two independents that caucus with the democrats.

## The Future for Cap and Trade?

- Very few nations that committed to the Kyoto Protocol actually met their commitments
- Unlikely to adopt a US Cap and Trade system without global action
- However, EPA is likely to act under the Clean Air Act
- Perhaps a Carbon tax?
- Numbers for the voluntary market don't provide tremendous financial incentives
- (Un) intended consequences of political decisions are detrimental to the positive role forests can play in addressing climate change



## Maine Timberland Qualifying as "Renewable Biomass" under 2008 Farm Bill

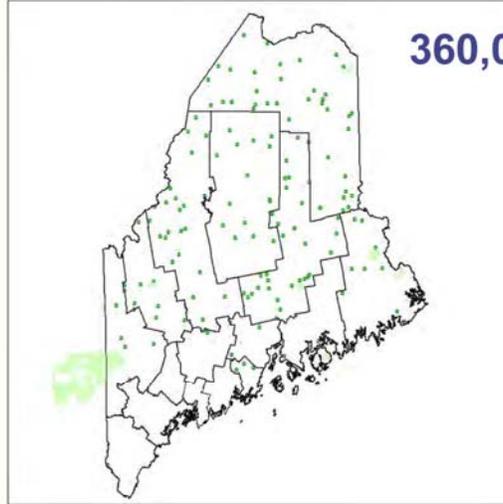


**17,000,000 Acres**

NOTE: These maps do not estimate the amount of volume that would be removed for biomass, but simply show the acreage of forests that are eligible under each definition.

- One dot represents 2,500 acres
- Federal Land

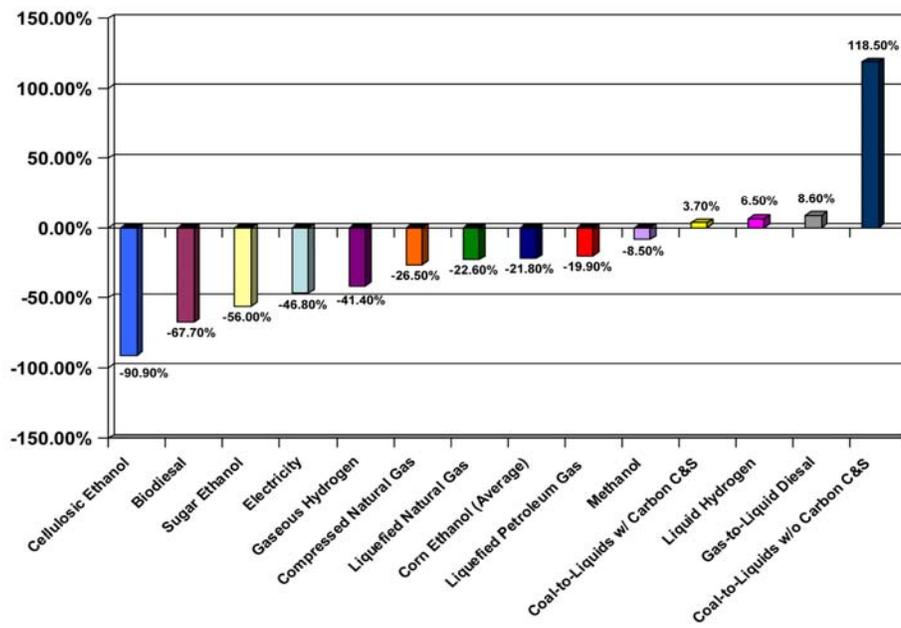
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## Alternative Fuel Comparison to Gasoline



## Unintended Consequences Associated with Biomass Energy

- Some have suggested that the accounting for biomass CO<sub>2</sub> and fossil fuel CO<sub>2</sub> should be the same.
- This fails to recognize the important role of the biomass carbon cycle and could result in facilities switching from forest-based fuels to fossil fuels.
  - This is because fossil fuels often yield more usable energy per ton of CO<sub>2</sub>, primarily due to the higher water content of biomass fuels.
- US forest sector is world leader in biomass energy production and use.
- Growth versus removals



## Carbon Market Project Types

- Afforestation/reforestation: the planting of trees
- Forest protection: protection of at risk forests
- Improved forest management: the management of forests for carbon outcomes
- Avoided conversion: keeping forests as forests



## Seems Pretty Simple, Right?

- Forests store carbon
- Products store carbon
- The public wants carbon stored
- As a landowner or manufacturer I can use my forest or product to store more carbon if you provide me with incentives
- Ability to net enough carbon credits to offset project costs



## But How Do We Ensure Storage is Real?

- Baseline
- Permanence
- Additionality
- Leakage



## Voluntary Markets

- VCS: Voluntary Carbon Standard
- ACR: American Carbon Registry
- CCX: Chicago Climate Exchange
- REDD: Reduced Emissions from Deforestation and Degradation
- Supply of forest offset credits are keeping prices for CAR around \$4 (US), and VCS/ACR around \$3.
- CCX is about done (trading under \$1)
- Protocols in development: North American Forest Carbon Standard (NAFCS – ANSI process), Western Climate Initiative, Regional Greenhouse Gas Initiative
- Tension between making the protocols credible and viable

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## Protocols in Development

- Western Climate Initiative, Regional Greenhouse Gas Initiative
- North American Forest Carbon Standard
  - Bi-national
  - ANSI/CSA process
  - Alternative regulatory effort
- Tension between making the protocols credible and viable



## Ending Thoughts

- There is wide recognition that there is a role for forests and forest products, as a way to offset emissions, given the carbon sequestered by forests and stored in forest products
- The challenge for forest-based offsets, however is how to craft both the policy framework and the actual accounting rules
- Will forests fulfill their potential as a solution to reducing atmospheric carbon?
- Are forest strategies too “easy” a fix?
- The public values forests more than ever before and partially because of their role in reducing CO<sub>2</sub>, can we take advantage of this opportunity?

