Carbon, Forests and Markets

SFI Annual Meeting 2010
Vancouver, BC

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Executive Vice President and CEO

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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

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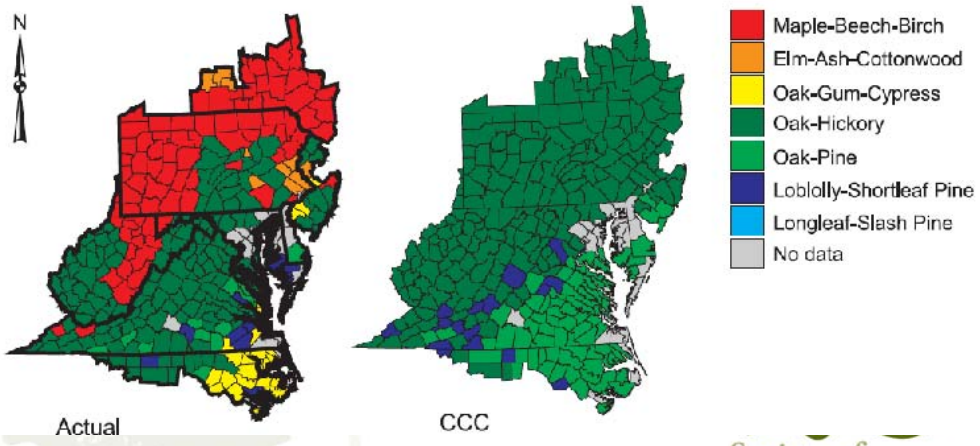
Why Foresters are Looking For Solutions



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SAF Report on Forests and Climate Change

Forest Management Solutions for Mitigating Climate Change in the United States

Robert W. Malmsheimer, Patrick Heffernan, Steve Brink, Douglas Crandall, Fred Deneke, Christopher Galik, Edmund Gee, John A. Helms, Nathan McClure, Michael Mortimer, Steve Ruddell, Matthew Smith, and John Stewart

About the Authors

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

SAF has established a follow up Task Force on Biomass Energy

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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

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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.

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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

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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

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NEWFIELDS

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

new INSIGHT | new DIRECTION | new SOLUTION

Source: USDA Forest Service - Forest Inventory and Analysis National Program

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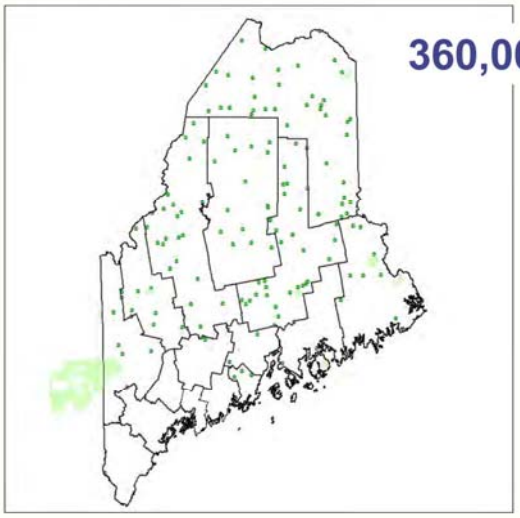
Maine Timberland Qualifying as "Renewable Biomass" under 2007 Energy Act



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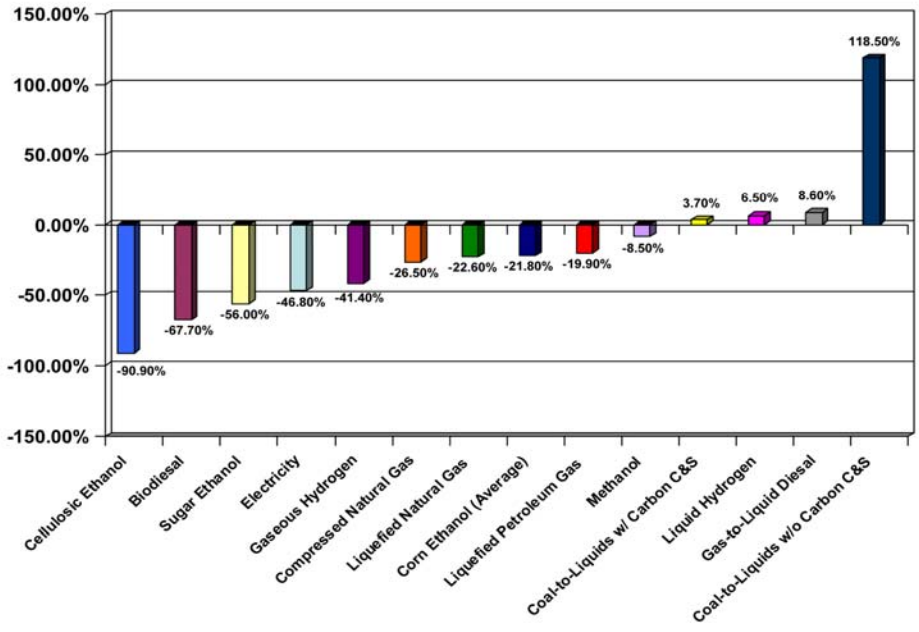
Alternative Fuel Comparison to Gasoline



Unintended Consequences Associated with Biomass Energy

- Some have suggested that the accounting for biomass CO2 and fossil fuel CO2 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 CO2, 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

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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

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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

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But How Do We Ensure Storage is Real?

- Baseline
- Permanence
- Additionality
- Leakage

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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 Iniative, 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

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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 CO2, can we take advantage of this opportunity?

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