SYNESIS
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On the agenda, finally: America's not-so-invisible forest health crisis

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Abstract
Recognition that forests can be carbon sinks has altered consumer perception of privately owned forested lands and provided an opportunity for revised public policy. Stimulated by the recognition that the majority of United States forested lands are privately owned, and occur in small parcels has the potential to modify local and national forest products policy and to support small business and rural economies. Existing forest management policy has long been directed to U.S. Forest Service and other federal lands at least in part due to public perceptions of environmentally proper management through protection. Instead, the forest management paradigm in coming decades must recognize ecosystem services provided by forested lands, the economic services provided by small business entities on privately owned land, and a flexible federal and state regulatory framework.

Key words*: carbon; forest; economy; ecosystem; ownership; policy; small business*

It took a crisis of global magnitude to put forests at the center of the political agenda. As recently as four years ago, except for the annual fire-stoked news-fest, forests did not figure in mainstream U.S. policy circles. Then came near-universal recognition of the perils of global climate change, and the palliative role healthy forests can play in curbing it.

Forests are enormous carbon sinks – each absorbing about 10 pounds of atmospheric carbon dioxide each year (and about the same amount of oxygen (1)). Overall, the forest sector in the U.S. captures about 10 percent of all the carbon dioxide emitted. In addition to storing carbon, forests also contribute to reductions in emissions when renewable energy or wood products from sustainably managed family forests are used in place of more carbon intensive materials such as fossil fuels, steel, or concrete.

The largest part of U.S. forests, some 262 million acres, is owned by families and individuals. These are not timber barons, as average tract size is around 20 acres (2). Beyond environmental benefits, these family-owned forests are the bedrock of rural economies. Together, they account for roughly 60 percent of all the productive timberland in the United States, and support a fiber-based industry that generates about a quarter-billion dollars in sales annually (3). In brief, family-owned forests are fundamental to both the rural community and national economies.

The Disappearing Forest

But this environmental and economic bedrock is being chipped away. Family forest owners are one of the nation's most vulnerable 'endangered species', and their forests are fast disappearing from the landscape, like the American Chestnut tree. Each year, we lose between one and one-and-a-half million acres of forest land; this equates to a land mass about the size of Everglades National Park (1). Every day, the Chesapeake Bay watershed loses about 60 acres of forests and open space.

Unfortunately, this environmental story remained relatively out of public sight for decades. Without the ingredients of great visuals, danger, and lives disrupted, these stories did not gain mass appeal. The fact that millions of acres of diverse habitats were being lost never quite became part of the public agenda.

Congressional policy and Agency followed the same pattern: forests of main interest were those owned by the Forest Service. The founder of the Forest Service [and seminal conservationist] Gifford Pinchot declared himself the nation's "Chief Forester." But for generations after, the men and women who occupied his desk were content to serve simply as Chief of the Forest Service – in short, custodian of the Federally-owned forests. In celebrating its 100th anniversary in 2005, the notion that somebody other than the Forest Service owned most of the nation's forests was barely mentioned. Somewhat more telling was that by mid-decade, up to 48 percent of the agency's *entire* budget was devoted to putting out fires (4). Everyone agreed this couldn't stand.

The Roots of Sustainability

In the late 19th century, massive clear-cutting sparked the beginning of the U.S. conservation movement. With states like Vermont stripped of nearly 80 percent of its forest cover, the nascent movement blocked plans to clear-cut parts of the Adirondacks (5). Even as these forests grew back (6), antipathy to clear-cutting remained. Despite the fact that clear-cutting mimics the natural disturbance necessary for forests to regenerate, activists still fight to bar timber harvests on Federal lands, layering administrative appeal upon lawsuit in a near-Dickensian tangle of litigation.

A century later, most of Vermont [and many other states] had regained their forests as agriculture became more efficient, wood-burning for energy subsided, and other products substituted for wood. Now stone walls transect Vermont forests, and Civil War cemeteries remain buried in Mississippi woods – clear evidence of the resiliency of these lands (6).

Beginning in the early 1990s, spurred by disastrous deforestation in the tropics, a few environmentalists shifted focus from seeking outright preservation through law and treaty, to a new strategy that wove economic and social realities together with environmental imperatives. To assure that market forces accounted for environmental values, and that conservation would not drain income from already-poor communities, they contrived a new, market-based mechanism for regulating forests – certification.

Before long, the certification movement spread worldwide to temperate, boreal, and tropical forests. By recognizing the importance and value of markets for forest products, certification changed both the tools for influencing behavior, and the venues in which they could be deployed. For companies, keeping brands on supermarket shelves became as important as engaging Congress.

The New Era

These forces – the recognition that healthy forests can curb climate change; the need to prevent fire suppression from de-funding all other Forest Service functions; recognition that conservation must embrace both environmental and economic values, and the emergence of market-based mechanisms for regulating forest owners – combined to create a new climate for deciding forest management.

Federal Policy

In a major paradigm shift, policy goals have changed from a maxim of "preserve, protect and prevent" behavior deemed harmful to forests, to a dominant theme animating policy makers to keep forests as forests, and working to produce the benefits we need. This shift serves to sustain not merely jobs, but "our nation's natural life support system … working farms, ranches and forests and wilderness and other open spaces that support native species, maintain natural ecological processes, sustain air and water resources and contribute to the health and quality of life for America's communities and people" (7).

Accordingly, in the 2008 Farm Bill, Congress opened USDA's multi-billion-dollar conservation programs to family forest owners. Although rural acreage is approximately equally divided between forest and farmland, until this Farm Bill, farmers had accrued more than 98 percent of the total Federal investment in rural conservation. Pending bills to deal with climate change, and to foster the use of renewable energy now incorporate provisions for family forests – both to garner the benefits they can provide through carbon sequestration and biomass production, and to generate additional revenue for owners. Nonetheless, competition for dollars in the Federal budget will intensify over the next decade – and the impact will spread beyond limitations to the amount of money spent in any one program area.

Many different interest groups compete for USDA conservation funding. Often, entrenched interests command the most attention and capture most funding. Even in the 2008 Farm Bill, 60 percent of the annual $1+ billion Environmental Quality Incentives Program is set aside by law for cleaning concentrated animal feeding operations. Remaining funds are allocated through a network of state and local committees long dominated by farm interests, and only now affording access to forest owners.

Markets

With the decline in U.S. pulp and paper manufacturing, markets for forest owners have been reduced – slashing the income they require to stay on the land. New markets for ecosystem services may make the difference between owners staying on the land, or acquiesing to developers. In short, there is much to be gained by letting the market work – to drive change outside the orbit of government regulation. However, if the current fiscal crisis has taught us anything, when government leaves the field and markets remain fully unfettered, the final outcome may hurt far more than the original problem trying to be solved. A number of factors influence such outcomes.

First, developing market rules is inherently a politicized process. There will be winners and losers. In the climate change arena, for example, there is already a fault-line separating those who pursue the "perfect" forest-carbon solution, from those willing to settle for a "good" outcome. Perfection seekers demand air-tight measuring and monitoring systems, stringent rules on additionality and leakage, and firm commitment to permanence. Others will accept some flexibility in these rules to maximize participation in carbon markets by small owners. Depending on the outcome, market rules may be too onerous and transaction costs too high to permit participation by small owners.

Second, rules set in the marketplace aren't subject to the discipline of public debate. Currently, the "marketplace" has generated at least three national systems to certify the practice of sustainable forestry. The goals are worthy: to enable companies to "reassure" customers that the products they buy do not harm the planet. Millions are invested to demonstrate the putative superiority of one system over an other, and activists lobby to see their system become the exclusive benchmark for purchasing decisions, and critical public policy. Slogans often overwhelm facts, and reality can disappear in a rhetorical fog. Worst of all, this ardent competition distorts the public view of what is really 'happening in the woods'.

We simply do not have big problems with U.S. forest sustainability. It is not poor forest practices that threaten our forests, it is conversion, intergenerational change, and thus, the number of people who do not understand that they own forests that provide valuable public goods. Does it matter that "the market" has decided that we must burden owners with expensive processes to prove that they are doing the right thing? This might make sense in some parts of the planet, but it is just another formality and bill to pay for family forest owners is New England or the Southeast where there is near-universal adherence to contemporary standards for good forestry (and already not much cash to invest in the future of their forests.).

Third, extra-governmental rules can produce counter-intuitive, if not downright problematic public policy. For example, consider "green building" legislation. Who is against it? Nobody. But recent legislation in Maryland highlights what can happen when government incorporates a single market-driven standard for green building- the Leadership in Energy and Environmental Design (LEED) standard – into procurement and tax incentive policies. LEED uses only one yardstick to measure forest sustainability – the Forest Stewardship Council's (FSC) standard. In Maryland, this means that wood from all of Maryland's locally-owned forests might not get credit for green building. The legislature ignored the fact that some 200,000-plus acres of Maryland forests have been certified to equivalent international standards for sustainability- just not to FSC. Nearly three-fourths of these forests are owned by individuals and families; some have held the same forest land in their family for more than 300 years. Telling these tax-payers that wood from their forests is not "good enough" for green buildings - which, in many cases, will be paid for with their tax dollars - is pragmatically and ethically wrong. Moreoever, it impugns the work ethics of those families and slights the passion and energy they've invested in keeping their forests healthy.

Perhaps, just as importantly, it ignores the role these forests play in protecting one of the nation's most treasured environmental resources, the Chesapeake Bay. When these family forest owners are excluded from markets, they are deprived of the funds needed to keep their land in trees. More and more will sell out, and thus will add even more forestland to the 60+ acres that disappears from the watershed every day.

Policymakers cannot remain silent and bend to the altar of market discipline. Informed debate should drive decisions about resources on which all citizens depend; simply, we cannot depend upon information generated by competing advocates. Politics is about the balance of conflicting interests; we elect representatives to strike that balance. Government can play a critical role in shaping these markets – setting rules, affirming protocols, assuring access to all citizens. For sure, these tasks are challenging, but from these can grow great opportunity for an environmentally sound future.

Legislators should embrace this challenge, lest they - and we - fall victim to the one immutable law that cannot be repealed, the law of unintended consequences.

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Mr. Wiseman is principal of CenterLine Strategy, LLC, which provides consulting services to federal agencies and nonprofit organizations on matters relating to urban and community forestry and advancement of green infrastructure.

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