

Market Incentives: The Next Generation of Conservation Tools¹

William J. Ginn²

Perhaps it is time for the conservation movement to leave the comfort of our past successes and direct our formidable resources toward new solutions, new ways of thinking about our work. Nothing is harder to do because it means making new arguments and new friends. —Peter Forbes et al., *Coming to Land in a Troubled World*

The St. John River in western Maine is an unusual river as North American rivers go, in that it flows almost due north toward the Canadian border. This northward track means that spring comes earlier to the southern headwaters of the river. As melt water builds northward, it often encounters frozen ice that results in massive ice jams and flooding that scour river banks and gravel bars clean of large vegetation. It's this ecology that makes it possible for a number of rare species to survive against competition from raspberries, alders, and spruce trees.

In a world where by all accounts we are headed toward a warmer climate—perhaps by as much as five to eight degrees—will the reduction in ice continue to favor the conditions that support these species? Recent modeling from the U.S. Forest Service suggests that New England forests will be profoundly changed in a warmer world. In the next century the line of spruce and fir trees linked so closely with the image of Maine will be pushed back north of the Canadian border in most places. The St. John River may be the last bastion of this forest type in the United States.

Addressing broad scale threats to ecological systems like climate change will be extraordinarily challenging for conservation because the problem requires new skills and competencies beyond simple land acquisition. We will be required to think about people, their role in the landscape, and the systems that hold us together as communities: governments, commerce, business, and the essential cultural and human values that control so much of how we use resources. For conservationists the message is clear. Working at nature's scale is essential. Putting fences around small patches of land will not save most endangered species. Protecting six hundred thousand acres may not save most endangered species. Even moderating overwhelming changes in our climate will not prevent the catalog of extinction from growing. Only by being successful at *all* of these scales will the millions of other species of plants, insects, and animals—from the charismatic right whales to the lowly ants—be truly protected.

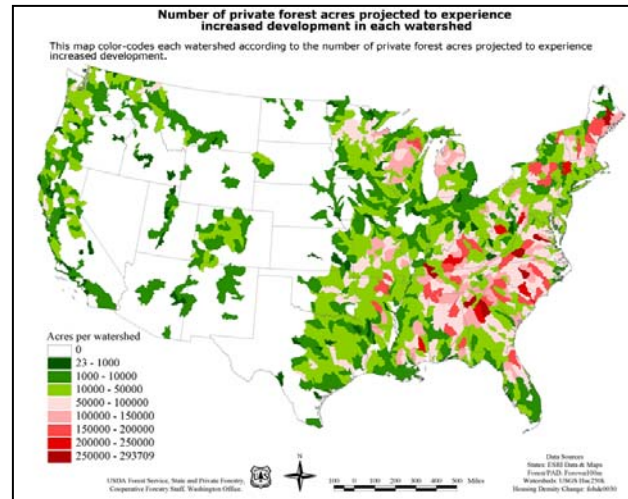
The great challenge to working at the scale of nature is that a competing system is operating at the same global scale. Its power is challenging the fabric of our natural systems. The nearly irresistible forces of business and commerce increasingly dominate culture, politics, and even our natural environment. Unless we are prepared to confront the direction of the global economy, our conservation efforts will fail.

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Figure 1. Projected Development in the U.S.

Since 2000, more than 3.1 million new houses have been built in the United States. The decline in forestland in the last fifteen years to make way for this and other development has been alarming. North Carolina has lost over 1 million acres of forest to clearing and conversion to development and even in rural Maine nearly 200,000 acres were developed in the period (see Figure 1) (USDA Forest Service).



At the base of the American and every other world economy is the use of nature's resources—land, timber, soil, water. In a world with a population headed from over 5 billion to at least 9 billion, the pressure on our natural systems will grow even greater. In 2002, the U.S. economic engine generated \$11 trillion worth of goods and services alone. Compare this with the funds available for investing in conservation. In 2005 the U.S. government will spend a paltry \$314 million to expand its parks and protect wildlife refuges, national forests, and shorelines.

Groups like TNC, Trust for Public Lands, and the Conservation Fund raise millions more from private donors, and while these efforts may double the amount available from government, but the combined sums remain woefully inadequate. Then one must factor in the plight of biodiversity hotspots like Papua New Guinea and Indonesia. With much of their population living at a bare subsistence level, funding for conservation is a low priority for governments dealing with faltering economies and crises in health care and education. Here the forces pushing development make the tools of conservation seem weak and wholly inadequate to the task ahead.

These are not new thoughts or statistics—and it is easy to be discouraged. But against these odds, a small group of dedicated business people turned environmental entrepreneurs and conservation-oriented investment bankers are pioneering a new set of market-based conservation tools in partnership with business. These practical visionaries have protected millions of acres of land; transformed the practices of entire industries; and inspired farmers, forest owners, and ranchers to change their management practices to sustain natural systems.

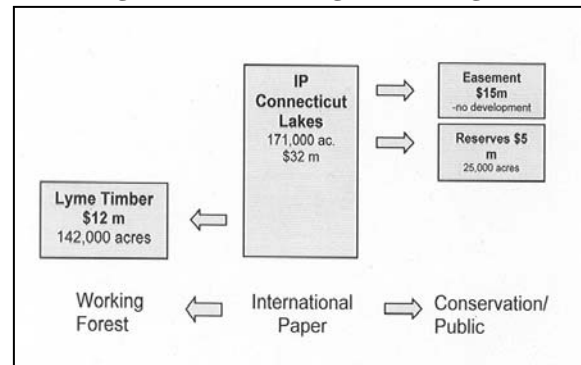
Increasingly, conservationists are turning toward incentives as a major tool to encourage businesses to change practices and commit to sustainable management of their resources. These tools rely not only on regulation, but also on growing customer expectations. New focus is being placed on green products harvested legally in sustainable ways, on tax credits and deductions that reward investments in conservation, and on a new set of financial incentives designed to encourage business practices and investments that support biodiversity.

But these are not the only opportunities for new approaches. Another group of investment bankers turned conservationists is aggregating capital contributed by conservation-minded individuals and organizations. These investment practitioners are buying conservation properties from bankrupt companies, restructuring corporate loans conditioned on conservation outcomes, and partnering with environmentally responsible investors to purchase vast acres of farms and forests that otherwise would be developed and in the process lost to the working landscape.

Another group of entrepreneurs has been tackling the task of creating wholly new marketplaces for environmental goods and services. Their vision has resulted in forest conservation projects as a source for carbon credits. They have developed natural resource-based “banks” where the currency is not money but grass, water, or timber resources. Conservationists are setting in motion powerful new approaches to engage business in the business of biodiversity (see Figure 2). As in any new field, this is an evolving story and not all of the recipes for conservation have been perfected or even shown to work at all. As any entrepreneur knows, the risk of failure comes with the territory and to think otherwise is foolish. We have a lot to learn from our mistakes and we need to be honest about what works and what does not.

Our focus must be on developing a new set of tools to achieve conservation at the scale of nature. My message is simple—markets and market-based conservation tools are powerful complements to old-fashioned land conservation. In an era of dwindling public resources and even scarcer charitable dollars, these new tools, honed from years in business and adapted by a growing group of entrepreneurial conservationists, are showing a new pathway to achieve our biodiversity goals.

Figure 2. Unbundling the land rights



But the importance of engaging business in the environment is not only about being clever in structuring land deals—it goes far beyond—to the heart of why we are protecting natural systems. The future of our planet is at stake. Communities are organized around economic systems and we can’t defeat human nature. We are a species that thrives by trading and thereby sharing goods and services—it is this collaboration for survival that distinguishes us from other species. Our future will be determined by whether we can find ways to use these skills to enhance the quality of life and the relationships between people and the natural systems of earth. The other choice is for our era to be recorded as the last feeding frenzy over the dwindling resources of the fossil fuel age. Commerce, with the proper structure and incentives, is perhaps our best hope for a tool powerful enough to create and sustain communities in a new harmony with the rest of the biodiversity of this planet.

My recent book, *Investing in Nature* (Island Press, 2005), explores several new kinds of tools for partnering with business. My purpose is to provide not only insights into how business thinks about conservation decisions but also to go beyond philosophy with practical tips on how to conceive and implement these strategies.

Conservation investment banking. There are interesting partnerships with private capital, conservation-oriented lending, and the adroit use of investment banking tools that have resulted in some extraordinary conservation results. Investment banking is about finding and deploying capital to grow businesses. Arranging loans, merging and acquiring businesses, investing in or creating new companies and partnerships to take advantage of marketplace opportunities—all are tools of the investment banking trade. *Conservation investment banking* is a new specialty that, like its kindred soul socially responsible investing, is focused on using capital to obtain conservation results while also meeting business needs.

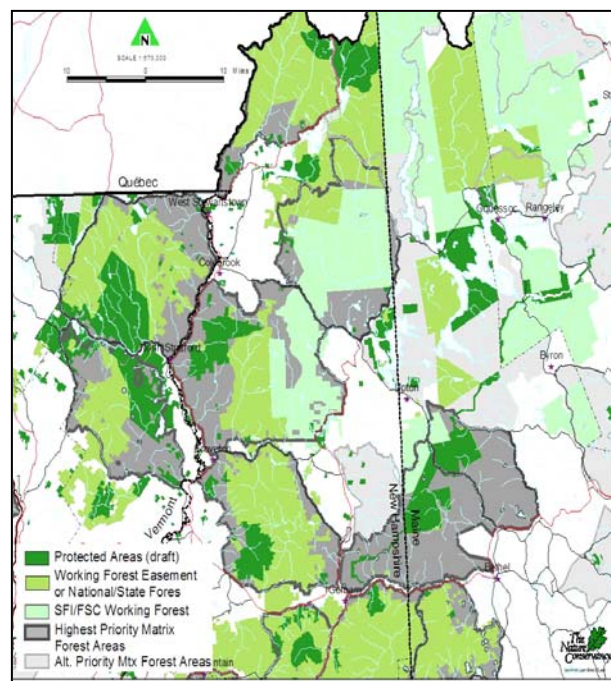
New environmental markets. There are new markets for nature's goods and services that have been used to conserve millions of acres of land. The topics range from using carbon credits to protect forests even in this uncertain "post" Kyoto period, and the creation of natural resource-based "banks"—grassbanks, forest banks, and water banks—all deployed around land conservation objectives.

Conservation incentives. Working with customer demands for green products, harvested sustainably, has moved some of the world's largest companies into new conservation-oriented land management practices. There are new tax credits and deductions that encourage companies to do the right thing. There are financial incentives for conservation—grants and payments linked to conservation management—that encourage companies and landowners to manage for endangered species and implement wildlife conservation practices.

There are important "lessons learned" from efforts of these kinds to date. Some things conservation groups have tried have not worked—and these failed projects provide new insights. At least one of these efforts, The Nature Conservancy's controversial compatible development approach in Virginia, has faced tough scrutiny from the press and donors. But there is also much to be learned from stepping back and examining what ten years of working on these new conservation strategies is accomplishing in places like the northern Appalachians of Vermont, New Hampshire, and western Maine (see Figure 3) (The Nature Conservancy).

As E. O. Wilson observed, "The juggernaut of technology-based capitalism will not be stopped, but its direction can be changed." Changing the direction of conservation *and* business in ways that can save our natural capital—land, water, biodiversity—while honoring the energy, creativity, and power of both.

Figure 3. Major Conservation Areas in the Northern Appalachian/Acadian Ecoregion – 2001/2002



Bill Ginn is director of forest conservation programs for The Nature Conservancy. This article is adapted from the introduction to his recent book *Investing in Nature* (Island Press, 2005).