

ECOSYSTEM SERVICES: Maybe Money Does



By **LARRY**
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Imagine yourself driving through the back roads of New England at the height of foliage season. Gentle autumn sunlight washes the reds, yellows, browns and greens of the forested hills. You stop at a creek-side restaurant, sit at the window, sip a beer and gaze out at the scenery. "Can it get any better than this?" you ask yourself.

"You betcha," mutters the restaurant owner under his breath, as he contemplates yet another fruitful and lucrative tourist season.

Everybody's happy. Well, almost. There's another player in this scene, way offstage, but vital nonetheless: the owner who invested years, sweat and probably a considerable amount of

money in nurturing the very forest you traveled hundreds of miles to look at.

He's providing you an "ecosystem service" — beautiful scenery — and everybody in the neighborhood is earning money from it ... everybody, that is, but him.

There are two lessons buried in this little story.

The first is that the definition of "ecosystem services" is nowhere near as complex as some economists make it. Every forester and most Tree Farmers understand that forests produce lots of things besides wood: beautiful landscapes, clean water, habitat for all kinds of wildlife, places for recreation or just to find a bit of

solitude. Producing these "ecosystem services" contributes mightily to the pride and pleasure family forest owners have always sought from being good stewards.

The second lesson is that it's hard to put a value on these services, and even harder to find a way to get paid for them. But it's not impossible.

In fact, many Tree Farmers have been selling a special kind of ecosystem service for decades — the right, through leases and permits, to hunt for the wildlife that lives in their woods.

Who's Buying What

The experts (and there aren't many!) tend to cluster ecosystem services

into two broad categories: "cap and trade" and "fee for services." The first type is primarily a pollution control strategy, and it requires a jumpstart from government. The latter tends to emerge when forest owners discover they have something to sell at about the same time other folks decide they need to buy it.

Cap and Trade: The classic example of a cap-and-trade program is carbon. Even though the United States hasn't yet signed on to Kyoto (and may never), there's still a market for carbon credits in the United States. It works something like this:

- A government body decides that air pollution from factories or power plants should be limited so that each plant adds no more than a set amount of carbon to the atmosphere every year. This is called the "cap," and each facility gets one.
- Some facilities, though, emit more pollutants than their caps permit.
- A market is set up in which a plant, in order to keep the facility below its cap, can choose between investing in more pollution-control technology or buying carbon credits from forest owners. (Check out <www.ecosystemmarketplace.com> for a look at real, working ecosystem markets.)

Storing carbon, of course, is only one of the ecosystem services Tree Farmers might provide under a cap-and-trade system. Others include wetlands mitigation, where developers "buy" credits (acreage in newly established wetlands banks) so they can build on existing wetlands; and transferable development rights, where a local government sets development caps for urban and rural areas, and rural owners can sell their development rights on a unit-by-unit basis to builders who want to exceed the urban caps.

The important thing to remember about cap-and-trade systems is that they're rooted in regulation. The

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value of what's being sold — indeed, whether there's a market at all — depends on government action that motivates buyers to seek out the service.

Fee for Services: Forests produce clean water. In fact, the vast majority of our nation's watersheds depend on healthy, growing forests; what happens upstream can determine what flows from the tap. So, keeping water clean and flowing is an important environmental service family forest owners provide to their neighbors. Generally, for free. But not always.

Consider what happened in New York City about eight years ago. The water utility faced a water-quality crisis. Quality was declining, and the choices were limited: pay \$6 billion upfront and hundreds of millions a year for a new treatment plant, or work with rural owners to protect the rural nature of their watershed. They chose to work in the watershed. Today farmers and forest owners in the Catskills earn about \$100 million annually from New York ratepayers — to practice precisely the kind of stewardship that's second nature to many Tree Farmers.

The fact is, most folks want pure, plentiful drinking water — and they'll pay for it. Like New York, other water districts have decided that investing to keep land in forests is cheaper and faster than building treatment plants to compensate for runaway rural development.

Other ecosystem services provided by Tree Farmers include endangered species protection, biodiversity, habitat for game and non-game species, outdoor recreation, green space around cities — to name just a few.

What's In It for Me?

It's hard to imagine a future where "selling" ecosystem services might supplant wood as a primary source of income for Tree Farmers. To begin with, it's difficult to define things such as "biodiversity" — much less quantify and put a value on it. Likewise, experts still grapple with how to create markets: to match buyers and sellers of environmental services, to set prices, to serve lots of small forest owners instead of a few big ones.

But some opportunities may surface. As part of the debate over the 2007 Farm Bill, Congress will explore whether to create new incentive programs to compensate forest owners who manage for endangered species or who have already achieved a high level of environmental performance — in protecting water quality, for example.

True, programs such as these don't constitute a true marketplace. They don't match "producers" directly with "consumers." Instead, government (at some level) acts as an intermediary, spending public tax dollars to pay for environmental services the public demands and you provide. But the net effect is the same — dollars earned for value delivered.

That's why savvy Tree Farmers should stay abreast of what's happening in the field of ecosystem services. As traditional commodity markets continue to evolve, the environment may become an even larger part of your future cash flow. 🌿

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