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# High Country News

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## Salvaging the Atmosphere

*The Forest Service joins the carbon offsets game*

*By Rick Craig*

The tornado that touched down near Bear, Idaho, in June of 2006 left a swath of the Payette National Forest looking like a giant's game of pick-up sticks. The jumble of broken ponderosa pine branches, fallen Douglas fir trunks and upturned roots stretches for 12 miles, reaches half a mile in width and has an estimated commercial value of \$9 million. It is no surprise the U.S. Forest Service sees the blowdown as an opportunity for salvage logging. But the agency also perceives another, less obvious benefit - a chance to fight global warming.

On July 25, Forest Service Chief Gail Kimbell announced the launch of the Carbon Capital Fund, which will sell carbon offsets to fund tree planting on national forests. "We know we can sequester more carbon through the right kind of reforestation projects in the right places," Kimbell said. The idea sounds logical enough. In fact, the theory that forests can suck up excess carbon and cool the planet helps drive a market that doubled its revenues last year to \$110 million. But the Forest Service's entry into the carbon offsets game comes as doubts about tree planting mount. Scientists are skeptical about its benefits, and the honesty of the unregulated market has been questioned in congressional hearings. Worst of all, critics feel, is the tacit permission offsets give buyers to continue their carbon-emitting lifestyles.

Visit the Web site of the National Forest Foundation, the Forest Service's nonprofit arm, and its Carbon Footprint Calculator can tell you how many metric tons of CO<sub>2</sub> emissions you are responsible for. If the result leaves you feeling guilty, don't worry. For just \$6, the fund lets you offset 1 ton of carbon by supporting tree-planting projects on the national forests. The transaction is based on the theory that forests act as "carbon sinks," soaking up the greenhouse gas from the atmosphere.

But in temperate forests, the concept has not held up well to scientific analysis. Forests do take carbon out of the atmosphere temporarily, but they don't remove it from the active carbon pool, because their carbon is released when they rot or burn. Cambridge botanist Oliver Rackham, author of a history of Britain's forests, has said that telling people to plant trees to stop global warming is like telling them to drink more water to keep down rising sea levels.

A 2006 Livermore Labs study found benefits to tree planting in the tropics, but showed that forests in temperate zones have a net *warming* effect. This is because their dark canopies absorb more solar heat than the grasslands and seasonal snow cover they displace, and the effect more than cancels out any benefits from carbon sequestration. In fact, when the Livermore scientists instructed their computer models to remove every tree in the world, the result was a slight cooling.

The University of Montana's Steve Running, a member of the United Nation's Intergovernmental Panel on Climate Change, thinks boosters are overstating the benefits of tree planting. "I'm all for planting trees," he says, "but what I'm getting progressively concerned about is that people think planting some trees will be good enough." He believes the Forest Service overestimates sequestration rates by understating factors like the release of carbon from the forest floor. And with warming temperatures causing more forest fires and faster decomposition, he doubts the forests' capacity to lock up that carbon in the long-term. "If somebody tried to sell a block of forest for a hundred years of CO2 uptake, I wouldn't find that defensible," he says.

The scientific community's concerns are spreading to Congress. In a July 18 hearing, Sen. Edward Markey, D-Mass., the chairman of the House Select Committee on Energy Independence and Global Warming, expressed his concerns that no standards existed to judge offset sellers' claims. And when the Forest Service launched its own offset program the following week, Markey and Sen. John Kerry, D-Mass., questioned the program in a letter to Kimbell.

The Idaho blowdown and the Kraft Springs Fire on the Custer National Forest will be the first two areas replanted by the Carbon Capital Fund. Both will follow salvage-logging operations, creating the appearance that the dubious practice of selling forest-based carbon offsets is being used to support yet another questionable program. Since 1995, the Forest Service has promoted salvage logging as a way to rescue marketable timber from rot while rejuvenating forests. But environmentalists have called it a smokescreen to hide destructive giveaways on public land. Indeed, a 2006 Government Accountability Office report found that salvage logging after Oregon's Biscuit Fire lost money. And a study by Oregon State graduate student Dan Donato indicated it slows regrowth and increases the risk of future fires.

National Forest Foundation director Bill Possiel defends the program's link to salvage logging, pointing out that extremely hot fires like Kraft Springs can leave forests so scorched that without replanting they wouldn't grow back for decades. He adds that controls are in place to ensure the fund's money is not merely used to supplement shrinking Forest Service budgets, or to enhance the economics of salvage logging. But Pacific Forest Trust director Laurie Wayburn, an advocate of verifiable standards for forest-based carbon reduction, says the controls are inadequate. She adds that the whole idea of selling carbon offsets on the national forests is questionable, because the forests already belong to the taxpayers. "If this (offsets) is a commodity produced on public land," she says, "who owns that?"

For an agency with increasingly stretched budgets, however, selling that commodity makes a difference. By tapping into the carbon zeitgeist, the program has already raised \$250,000. And with the agency's million-acre reforestation backlog, there's no shortage of places for consumers to relieve their carbon guilt.

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