

December 20, 2009

OP-ED CONTRIBUTOR

Clear-Cutting the Truth About Trees

By BERND HEINRICH

Burlington, Vt.

THE Copenhagen climate-change summit meeting is behind us, and did not achieve what was hoped for. There was no lack of good intentions, but they generated conflicts rather than solutions, and the product was a weak agreement to disagree in the future. Forests were part of the discussion, and several things were understood: carbon dioxide is a potentially world-altering lethal pollutant, fossil fuels are the problem, biofuels are part of the solution. But exactly how to pare down the use of fossil fuels and switch to energy sources derived from plant material? That is the problem.

Biofuels are the indirect use of solar energy packaged into plants by the best solar-panel technology that has ever been invented, and it is far easier to grow green power than to build nuclear plants, dam our waterways and put windmills on our scenic mountaintops. Yet our current plans to shift to green energy — centered on so-called carbon offsets and cap-and-trade systems — are in some applications sorely misguided.

Contrary to what you might hear from energy companies and environmentally conscious celebrities, offsets don't magically make carbon emissions disappear. Worse, relying on them to stem global warming may devastate our vital forest ecosystems.

On the industrial scale, carbon trading works like this: Limits (caps) are set on carbon emissions so that the true costs of our energy use are not just passed on to our descendants or people in some distant country. As an incentive to help the planet, savings of carbon emissions that one achieves below the designated cap can then be traded, as offsets, to another polluter who can then go over his cap by an equal amount. While carbon credits can be generated by switching to cleaner technology or nonpolluting sources in energy production, they can also be gained by unrelated steps, like planting trees, that are said to deter global warming.

Thus, if I burn coal in my business, I can plant pines in Chile and earn an offset, which will then allow me to burn even more coal. On a smaller scale, Al Gore purchases carbon offsets that he says make up for the emissions from the jets he uses in spreading his message of conservation. All this may seem logical, and energy companies would have you believe it works in the real world. But it is actually terrible for the planet, which is governed by the dictates of physics and biology.

Part of the problem is the public misunderstanding of how forests and carbon relate. Trees are often called a "carbon sink" — implying that they will sop up carbon from the atmosphere for all eternity. This is not true: the carbon they take up when they are alive is released after they die, whether from natural causes or

by the hand of man. The only true solution to achieving global “carbon balance” is to leave the fossil carbon where it is — underground.

Beyond that, planting more trees is decidedly not the same thing as saving our forests. Instead, planting trees invariably means using them as a sustainable crop, which leads not only to a continuous cycle of carbon releases, but also to the increased destruction of our natural environment.

A few environmental groups in Copenhagen were considered unwelcome guests for loudly pointing out that the carbon-trading proposals bandied about at the meetings subsidize forest destruction and will lead to large-scale destruction of ecosystems and unprecedented “land grabs.” (Disclosure: my wife is a researcher for one of those groups.) But such claims are correct. More than anything, carbon offsets will allow rich countries to burn ever more fossil fuels under the “clean development mechanism” of the [Kyoto Protocol](#), the system that sets the values, in terms of tons of carbon equivalent, of emission-reduction efforts.

In fact, most of the problems with the system can be traced back to the Kyoto Protocol, which was adopted in 1997. After much political wrangling, the Kyoto delegates decided that there would be no carbon-reduction credits for saving existing forests. Since planting new trees does get one credits, Kyoto actually created a rationale for clear-cutting old growth.

This is horrifying. The world’s forests are a key to our survival, and that of millions of other species. Not only are they critical to providing us with building material, paper, food, recreation and oxygen, they also ground us spiritually and connect us to our primal past. Never before in earth’s history have our forests been under such attack. And the global-warming folks at Copenhagen seem oblivious, buying into the corporate view of forests as an exploitable resource.

A forest is an ecosystem. It is not something planted. A forest grows on its own. There are many kinds of forests that will grow practically anywhere, each under its own special local conditions. When a tree falls, the race is on immediately to replace it. In the forests I study, there so many seeds and seedlings that if a square foot of ground space opens up, more than a hundred trees of many different species compete to grow there.

So if you want to plant a specific species of tree for lumber or for offsets, you’ll have to apply an (petroleum-based) herbicide repeatedly over its lifespan. If you hope to make a profit, you will plant a tree genetically engineered to grow quickly and resist disease. This is the path to domestication of a plant that needs to be ever coddled with fertilizers, herbicides, pesticides and fungicides. And not coincidentally, there will then be a market for its seeds, and all the chemicals needed to coddle the crop.

In the end, what was originally intended as a mechanism for slowing global warming has created huge economic pressure for ecocide. And there will be no objections from easily duped bleeding- heart “environmentalists,” who absolutely love tree planting because it sounds so “green.”

To preserve something it first has to be valued, and the most effective means of valuing it is to have a practical use for it. If the discussions in Copenhagen were any indication, mankind sees little value in forests, but much in tree plantations. (On the other hand, I admit that those of us who really do care about forests have not exactly been helpful. We have not encouraged selective harvesting from naturally occurring stands, which may be necessary.)

It is easy to scream bloody murder against tree planting as a means for biomass energy and industrial fiber production, but there then has to be an alternative (aside from the obvious one of energy conservation). We need either vastly fewer people or vastly more forests, along with a new definition of earth-friendly reforestation.

These new stands of growth — if managed as true forest rather than as a single-species, single-aged crops — would contain a mixture of mature and transitional-growth trees. Any tree cut down would immediately generate a race of others to replace it at that spot, and the winner will emerge from a natural selection of seeds and seedlings most suited to grow there. No, this isn't the fastest way to build up carbon credits. But it is the only real way to preserve the planet, and ourselves.

Bernd Heinrich, emeritus professor at the University of Vermont, is the author of the forthcoming "Nesting Season."

Copyright 2009 The New York Times Company

[Privacy Policy](#) | [Terms of Service](#) | [Search](#) | [Corrections](#) | [RSS](#) | [First Look](#) | [Help](#) | [Contact Us](#) | [Work for Us](#) | [Site Map](#)
