

# Can trees really offset emissions?

Some call them ‘indulgences’; others say plantings can’t hurt

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*ALBANY, N.Y.* — If you plant some trees, is it OK to drive an Escalade?

The question isn’t as silly as it sounds. People worried about global warming increasingly are trying to “offset” the carbon dioxide — the leading greenhouse gas — they spew into the atmosphere when they drive, fly or flick on a light. One idea popular with the eco-conscious is to have trees planted for them. You get to keep driving and flying, but those trees are supposed to suck in your trail of carbon.

Whole forests have been funded by tree-loving celebrities like Leonardo DiCaprio and Coldplay, and more modest packages tailored to typical consumers are proliferating.

But some researchers say planting trees — while a good thing — is at best a marginal solution to global warming. Still others decry tree planters who continue to jet off to Cannes, drive their SUVs or generally fail to reduce their fuel-hungry lifestyle. To those critics, plantings and other carbon offsets are like the medieval practice of selling indulgences to wash away sins: It may feel good, but it doesn’t solve much.

The sale of offset indulgences is a dead-end detour off the path of action required in the face of climate change,” says a report by the [Transnational Institute's Carbon Trade Watch](#).

Groups that offer tree offsets typically rely on Web calculators requiring users to type in how many miles they drive, how much electricity they use and how far they fly. Figure out how much CO<sub>2</sub> someone is responsible for (output), compare it with the work average trees can do (input), and you have a formula for neutralizing a person’s ‘carbon footprint’.

Tree planting is “easy to do, and it makes a big difference,” said Jena Thompson of the [Conservation Fund](#), and one of many groups that will plant trees on your behalf.

*‘Trees are all different and the amount of carbon in the tree depends on how old it is and where it’s growing and what kind of tree it is’*

**John Kadyszewski**  
**Winrock International**

The science is sound: 'trees take in carbon dioxide as part of photosynthesis and store the carbon. But even conservationists caution it's not as simple as planting a sapling so you can crank up the air conditioning without guilt.

Offset groups use averages to estimate how much carbon a given tree or forested acre can capture. For instance, the nonprofit Conservation Fund figures that each tree planted captures less than 1¼ tons over 100 years.

To put that in perspective, consider that about 7.3 billion metric tons of carbon dioxide was produced from the burning of fossil fuels worldwide in 2003, the most recent estimate available.

And how much carbon dioxide a tree can soak up varies, said John Kadyszewski of [Winrock International](#), a nonprofit that works on environmental projects. A huge California redwood might have 30 tons of carbon stored while a 100- year-old pine might have less than a ton.



A tree, such as one in New York's Adirondacks, is estimated to soak up about 1-1/2 tons of carbon in 100 years.

*Mike Groll/The Associated Press*

"Trees are all different," said Mr. Kadyszewski, coordinator for ecosystem services for Winrock, "and the amount of carbon in the tree depends on how old it is and where it's growing and what kind of tree it is."

Mr. Kadyszewski notes that most of the calculators use conservative numbers. The Conservation Fund and Carbonfund.org both

say they plant more than enough trees to deliver on offsets.

There are other potential problems, however. Some researchers suggest forests in the snowy North might actually increase local warming by absorbing sunlight that would otherwise be reflected into space. And dead, decaying trees release some of that captured carbon back into the atmosphere.

Maybe most importantly, some researchers say it's simply not possible to plant enough trees to have a significant effect.

Michael MacCracken, chief scientist at the nonpartisan [Climate Institute](#) in Washington, said tree-planting has value as a stopgap measure while society

attempts to reduce greenhouse gases. In Canada, University of Victoria climate scientist Andrew Weaver fears tree offsets could steal the focus of a problem that requires technological advances and behavioral changes.

The danger is that you could actually think you're solving a problem," Dr. Weaver said. "It makes you feel good. It makes you feel warm and fuzzy, like changing a couple of light bulbs. But the reality is it's not going to have a significant effect."

Eric Carlson of the tree-planting nonprofit [Carbonfund.org](http://Carbonfund.org) fears the indulgence argument shifts the focus from what normal, everyday people can do to fight global warming: Cut down on electricity and gasoline use, support renewable energy and, yes, plant trees. "The worst thing is to do nothing," he says.

### **Forest Campaigns**

For \$40, Trees for the Future will plant 400 trees in a developing country to handle your car emissions. In June, Delta Air Lines, partnered with the Conservation Fund, will let online ticket buyers help offset emissions of flights through plantings in the U.S. and abroad.

*Michael Hill, the Associated Press*