

## Media Advisory

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## Accounting Error Undermines Climate Change Laws

**Loophole encourages deforestation as carbon caps tighten — but is fixable, study finds**

As Congress continues to debate climate legislation, an important but fixable error in legal accounting rules for bioenergy could undermine efforts to reduce greenhouse gases by encouraging deforestation. The finding comes from an article released today in the journal *Science* from 13 prominent scientists and land use experts in the United States and Europe. The error affects the Kyoto Protocol, the European Union's Emissions Trading System and is written into the U.S. climate change bill passed by the House of Representatives this past summer.

"The error is serious, but we can fix it," said lead author Tim Searchinger, a research scholar at Princeton University and a fellow with the German Marshall Fund of the U.S. "The solution is to count all the pollution that comes out of tailpipes and smokestacks, whether from coal and oil or bioenergy, and to credit bioenergy only to the extent it really does reduce greenhouse gas emissions."

The greenhouse gas consequences of using bioenergy vary greatly depending on the source of the biomass. If plant growth increases to produce bioenergy, as when fast-growing trees or grasses are grown on degraded land, bioenergy reduces global warming because the plants absorb more carbon from the atmosphere than would otherwise be stored. But if bioenergy use results from burning wood chips from existing forests for electricity or clearing rain forests to grow palm oil and other crops for biofuels, bioenergy does not reduce greenhouse gas emissions and may increase them. The accounting rules in these legal measures mistakenly exempt the carbon dioxide emitted by bioenergy, regardless of the source.

This loophole gives oil companies and other carbon-intensive industries that face tighter pollution limits a cheap, yet environmentally expensive way to reduce greenhouse gas emissions. According to a number of studies, including one by a U.S. Department of Energy lab, applying this incentive globally could lead to the loss of most of the world's natural forests as carbon caps tighten.

"Just like with financial audits, it's important for carbon audits to be correct from the start," said Michigan State University Professor and study co-author Philip Robertson. "The promise of cellulosic biofuels is huge for our climate and economy. We don't want to find out later that we've built a new industry on a house of cards."

Neither the Kyoto Protocol, nor the existing or proposed climate legislation in Europe and the U.S., currently apply limits to emissions from land use such as deforestation. Because of that, the exemption of the real carbon dioxide emitted from the burning of biofuels and wood for electricity means all forms of bioenergy are carbon neutral, which creates incentives to clear land for biofuel use.

"The error results from misapplying principles set out by the international scientific body that advises governments on climate change," said Steve Hamburg, Chief Scientist of the Environmental Defense Fund and a lead author of the Intergovernmental Panel on Climate Change's 2000 report on land use. "The accounting rules need to work differently for laws and treaties that limit emissions only from energy use than they work for reporting requirements that apply to emissions both from energy and land use activities."

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