

SIDEBAR: Ending the Ethanol Wars

One of the most contentious areas of energy and climate policy has been a major dispute about whether or not biofuels produced or consumed in the United States and other developed countries are driving deforestation.

A number of studies published in prominent scientific journals have concluded that growing crops for fuel in the United States and Europe displaces food crops, leading to higher food prices and greater demand for agricultural products that in turn drives deforestation for agricultural expansion.* As a result of this “indirect land use” impact, these studies found that ethanol and other biofuels caused significantly more climate pollution than the gasoline they are meant to replace. In a report published in the journal *Science*, for instance, Princeton University’s Tim Searchinger found that corn-based ethanol grown in the United States increased greenhouse gas emissions for 167 years over gasoline.†

“REDD can help reduce the potential for any direct and indirect effects of bioenergy production on greenhouse gas emissions from changes in agriculture and other land uses.”

—Annie Petsonk
Environmental Defense Fund

Biofuels manufacturers, growers and others have disputed these findings, arguing that land use decisions in tropical countries are driven by many forces other than developed country energy and land use policy — and that increasing yields from many crops could counteract any indirect land use impacts.**

There’s a lot at stake in this debate — and not just for the environment. The 2007 Energy Independence and Security Act mandated the production of 36 billion gallons of biofuels by 2022 (a quadrupling of current production), but required 22.3 billion gallons of that to be subject to lifecycle greenhouse gas analysis to ensure that it actually reduced pollution relative to gasoline. As part of that analysis, it stipulated that indirect land use impacts such as tropical deforestation be used to calculate the total greenhouse gas impact of biofuels.†† If ethanol is found to indeed drive deforestation at significant levels, it would be ineligible to fill the demand created by part of the 36 billion gallon mandate — significantly reducing a source of income for corn growers and ethanol manufacturers.

Although stark disagreements about the environmental impact of ethanol persist, environmentalists and biofuels producers have reached a consensus that protecting rainforests through climate finance mechanisms will dramatically reduce any indirect land use concerns. In most parts of the world, even additional income from biofuels can’t come close to generating the levels of revenue that could be available to landowners from climate finance incentives for forest conservation — meaning that tropical forests will generally stay intact.

As a result, protecting rainforests through climate finance will allow biofuels producers and growers in the United States to prosper with fewer concerns about the environmental impact of their production.

* Fargione, Joseph; Jason Hill, David Tilman; Stephen Polansky; and Peter Hawthorne. “Land Clearing and the Biofuel Carbon Debt,” *Science*. Vol. 319, No. 29. February 29, 2008. P. 1235-1238.

† Searchinger, Timothy; Ralph Heimlich; R.A. Houghton; Amani Elobeid; Jacinto Fabiosa; Simla Tokgoz; Dermot Hayes; and Tun-Hsiang Yu. “Use of U.S. Croplands for Biofuels Increases Greenhouse Gases Through Emissions from Land Use Change.” *Science*. February 29, 2008. Vol. 319, no. 5867. P. 1238-1240.

** Khosla, Vinod. “Biofuels: Clarifying Assumptions.” *Science*. Vol. 322, No. 5900. October 17, 2008. P. 371-374.

†† Energy Independence and Security Act, Title II