IISD Commentary

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Subsidizing Biofuels Backfires

By David Runnalls

U.S. President George Bush's enthusiasm for biofuels—witness his recent courting of Brazil on developing ethanol in the hemisphere—is all well and good, but the cost, both to the American taxpayer and to the global environment, is sobering indeed.

A recent report by the International Institute for Sustainable Development's Global Subsidies Initiative estimates that subsidies to biofuels are between US$5.5 billion and $7.3 billion a year. Those figures are expected to grow significantly if current policies remain in place, because the bulk of biofuel subsidies are tied to output—and output is increasing at double-digit rates of growth.

"While corn farmers are happy with this system, other rural dwellers are not," writes Runnalls. (iStock photo/ ©James Steidl)

The IISD report estimates that the subsidy content of a gallon of E-85—the almost pure blend of ethanol that "flex fuel" cars are designed to run on—at roughly $1. In mid-February, the price at the pump of a gallon of gasoline in the U.S. Midwest was $2.26. Many of these subsidies are being piled on top of one another without policy-makers having a clear idea of their potential impact on the environment and the economy. And these are not just federal subsidies; everyone wants in on this act. The report estimates there are more than 200 individual subsidies for biofuels in the United States. For example, the competition among small towns for the attention of the builders of prospective ethanol distillery plants is as spirited as the 19th-century competition for rail lines.

Meanwhile, U.S. government subsidies to biofuels have been promoted as a way to simultaneously address concerns related to the environment, energy security and rural development. But the cost-effectiveness of achieving these goals under the current subsidy regime is low.

The IISD report finds, for example, that biofuels are an extremely high-cost means for reducing greenhouse-gas emissions. Under optimistic projections, it costs at least $500 in federal and state subsidies to reduce one metric tonne of carbon dioxide equivalent through the production and use of corn-based ethanol. And that may be a conservative estimate.

Five hundred U.S. dollars could purchase more than 30 tonnes of equivalent offsets on the European Climate Exchange, or nearly 140 tonnes on the Chicago Climate Exchange. And if coal-based electricity has been used to power the ethanol plant, the cost of carbon dioxide reduction approaches infinity, as little or no carbon dioxide has been reduced. In fact, it would be just as sensible in climate-change terms to use a gallon of normal gas. The sheer levels of government support for biofuels appear out of proportion to their ability to satisfy domestic transportation fuel requirements. Current forecasts are that biofuels will account for less than five per cent of total global transport fuel use in 2010.

While corn farmers are happy with this system, other rural dwellers are not. The price of corn has more than doubled, since it is now a competitor to oil rather than food grains, putting ranchers, hog farmers and other feed users under enormous pressure. According to U.S. food policy expert Lester Brown, if all the ethanol plants that have been approved for the next year are built, ethanol will be eating more than 40 per cent of the entire U.S. grain crop by 2008. What happens if we have another African famine or one or two bad crop years in North America?

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Biofuels can help the transition toward less carbon-intensive fuel sources. Brazil's production of ethanol from sugar cane is an excellent example of these fuels at their best, and holds out hope for the producers of sugar cane in other developing countries that have been impoverished by competition from subsidized sugar production in the United States and Europe. However, even here, one has to be careful not to diminish valuable rain forest carbon sinks in a rush to produce sustainable biofuel. And the unproven cellulosic ethanol process, which could produce large quantities of fuel from wood and agricultural wastes, would represent the kind of seminal technological breakthrough that could benefit both our climate and our rural economies.

But subsidizing corn farmers the American way is clearly not sustainable.

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