

Clean Energy: Myth Or Reality?

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The April 7 cover article in Time magazine "The Clean Energy Myth" has prompted conflicting views among farmers, economists, biofuel interests and environmental groups. The Time article, based on an article in Science, expresses concerns

for the clearing of the Amazon rain forests in Brazil as developers are replacing forests and cattle ranches with soybean acreage.

The author blames the accelerating land rush on biofuels, an explosion in demand for farm grown fuels that has raised global crop prices to record highs and spurring expansion of Brazilian agriculture.

With soaring oil costs and anxieties over climate changes, biofuels have become the "vanguard of the green tech revolution, the trendy way for politicians and corporations to show they're serious about finding alternative sources of energy and in the process slowing global warming."

The pressure to expand crop acres in Brazil is blamed on the expansion of ethanol production in the United States – a mandate to increase renewable fuels output over the next decade. Europe has similarly aggressive biofuel mandates and subsidies.

However, the Time article states that new studies show the biofuel boom is doing exactly the opposite of what its proponents intended – "dramatically accelerating global warming, imperiling the planet in the name of saving it." Corn based ethanol is labeled "environmentally disastrous."

At the same time, diverting corn and oil seed crops from dinner plates to fuel tanks, biofuels are blamed for jacking up world food prices and endangering the hungry.

The article's main criticism is that using land to grow fuel leads to destruction of forests, wetlands and grasslands that store enormous amounts of carbon. The author cites the U. S. production of one fifth of its corn for ethanol as causing a chain reaction in Brazil and other countries shifting to produce more energy crops.

The Time article has fueled criticism from those who believe that the author has over simplified the forces of global climate change and farmers' production decisions. Many agree that global grain demand is supporting crop prices. Others believe that the commodity price boom is being influenced by the declining value of the U. S. dollar. Also the story ignores potential advances in genetics and other technologies that could boost per acre yields on existing crop land.

Other close observers believe that the Time article ignores the differences in types of biofuel. As they see the situation, the feedstock, its production, the conversion processes and the byproducts are all very different. Sugar cane will yield an estimated 4540 liters of ethanol per hectare (about 2.47 acres). The byproduct will provide enough power to run the plant and electricity to sell. Corn yields 4680 liters per hectare and 3.9 metric tons of distillers dried grains for feed. Soybeans provide oil for biodiesel and soybean meal for feed and other uses.

Concerned by the destruction of rain forests in Brazil, the government in Brazil has passed laws to limit cutting forests to 20 percent of an owner's land. The major problem seems to be enforcement and the powerful forces that biofuels have unleashed – political, economic, and social – seem too powerful to constrain.

In this country, farmers who expand corn and soybean acreage are not cutting down forests but usually they are planting crops on land that has been in other less productive uses.

However, not all biofuel news is good news. Iowa based Renewable Energy Group has withdrawn its initial stock offering because of adverse market conditions. They are currently making about one-quarter of all biodiesel sold in this country.

Ethanex, an ethanol company has said it will seek bankruptcy because the firm could not raise \$1.5 million in interim financing. It has dismissed three of its six officers and has backed out of a plan to buy a Nebraska ethanol plant. Some proposed ethanol plants have delayed construction plans.

The pressure to switch to biofuels because of higher oil prices is producing major consequences in many countries. Freak weather may be one cause. But dramatic changes are occurring in the global economy including higher oil prices, lower food reserves and growing consumer demand in China and India.

Eventually farmers will grow more grain for both food and fuel and prices will stabilize. Recent congressional hearings and other pressures may force major oil companies to accept a lower share of their profits from refining. A Wall Street Journal article claims that gas prices would be 15 percent higher without the increasing effect of biofuels. However, United Nations agriculture officials suggest that consumers will face at least 10 years of more expensive food.

Farmers, agricultural industry, environmental groups, consumers, and oil companies all have an interest in the development of biofuels. Each will be affected differently as the biofuels industry expands. Δ

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