



BRAZILIAN SUGARCANE ETHANOL

GET THE FACTS RIGHT AND KILL THE MYTHS

GIVEN THE
ONGOING DEBATE
ON ETHANOL
BENEFITS, IT IS
IMPORTANT TO
DISTINGUISH
FALLACIOUS
MYTHS FROM
HONEST FACTS





MYTHS vs. FACTS

MYTH #1

Brazilian sugarcane ethanol leads to the deforestation of the Amazon Rainforest

FACT

Most sugarcane for ethanol production (90%) is harvested in South-Central Brazil, over 2,500 km (1,550 miles) from the Amazon. The remainder (10%) is grown in Northeastern Brazil, about the same distance from the Amazon's easternmost fringe. That is roughly the distance between New York City and Dallas, or between Paris and Moscow. There is a very tiny production of sugarcane in the Amazon (less than 0,2% of Brazilian total production) that is processed at four mills that were built more than 20 years ago at a time when the government provided fiscal incentives to set up industrial facilities in this region to supply the local market. Without subsidies these mills would not have been economically viable since the Amazon region does not offer favorable conditions for commercial sugarcane production. For this reason, future expansion is anticipated to continue in South-Central Brazil, primarily in degraded pastures.

MYTH #2

Sugarcane expansion displaces other agricultural activities into the Rainforest

FACT

According to the Brazilian National Institute for Spatial Research (INPE), about 65% of recent sugarcane expansion took place on pastures, mostly degraded, in the Center-South of the country. As such, growing sugarcane in these areas do not increase competition for land or displace other crops. Amazon deforestation, which has been going on for many decades, has been caused by a complex set of social and economic factors completely unrelated to the expansion of Brazil's sugarcane industry. One of the main issues is the absence of clear land titles that leaves the region exposed to rampant land speculation and squatters. In the Amazon, 43% of the areas are officially protected, while the rest is divided between supposedly public (21%) and private (32%) areas. But the truth is that only 4% of the private areas have rock-solid titles. As a result of the lack of clear property rights and enforcement of the law, illegal logging is the "cash crop" of the rainforest. Finally, over 20 million people currently live in the Amazon region. Tragically, to many of them, the standing forest has no value for their immediate well being, or economic survival.

MYTH #3

Brazil is being overrun by sugarcane plantations in detriment of food production and prices

FACT

Sugarcane for ethanol production in Brazil occupies 3.4 million hectares, or roughly 1% of the country's 355 million hectares of arable farmland. The cultivated area is 1/4th of that dedicated to corn, 1/8th of the area planted with soybeans and 1/60th of the land used for cattle farming. With only 1% of its arable land dedicated to sugarcane for ethanol production, Brazil has been able to replace half of its gasoline needs with sugarcane ethanol. While cane production has increased steadily in recent years, food production in Brazil has grown dramatically without any material price increases. The 2007 grain and oilseed harvest set a record at 142 million metric tons, a doubling of production in the last ten years. Brazil is widely recognized for its diversified and highly efficient agricultural sector – it is the world's leading exporter of beef, coffee, orange juice, poultry, soybeans and sugar.

MYTH #4

Ethanol production and use cause more damage to the environment than fossil fuels

FACT

Ethanol can be produced from a wide variety of feedstocks, with different environmental impacts depending on how they are processed. Claims that ethanol production could actually increase carbon emissions are flawed. The basis for such assumptions lack transparency and lead to the absurd conclusion that dwindling fossil fuels are better for the environment. Brazilian ethanol produced from sugarcane reduces greenhouse gas emissions by up to 90% compared to gasoline, a reduction unmatched by any other biofuel produced with existing technology and comparable to what is attained with second-generation biofuels. This positive balance is not affected by changes in land use. In fact, when compared to crops such as corn or soybeans, sugarcane captures more carbon because it is a unique semi-perennial crop only replanted every six years. In addition, the use of degraded pastures – the expansion area of choice for sugarcane in Brazil – actually generates a carbon credit, as sugarcane captures significantly larger amounts of carbon than the quantities originally stocked in this type of land. In addition, the by-products of sugarcane ethanol production (bagasse and in the future straw) are used to produce clean, renewable electricity, currently accounting for 3% of Brazil's electricity needs and expected to reach 15% by 2015.

MYTH #5

Ethanol production consumes more energy than it generates

FACT

When the entire process is considered, from the planting of sugarcane to the use of ethanol as a motor vehicle fuel in what is known as a well-to-tank analysis, sugarcane ethanol produces 9.3 units of clean, renewable fuel for every unit of fossil energy utilized. Ethanol produced from other feedstocks such as sugarbeet, cereals and grains (corn, wheat, barley etc), manages a 2-to-1 ratio today. Studies from Boston University's Cutler Cleveland now show that the current and near future fossil fuels have a significantly lower energy ratio than in the past.

MYTH #6

Gasoline prices are not reduced by the use of ethanol

FACT

When added to gasoline, ethanol is a key factor to keep fuel prices competitive and more affordable. Recent studies have shown that if ethanol were entirely removed from the fuel supply, gasoline prices would rise by 15-30% at the pump. Used as an additive, ethanol is not only an effective fuel extender which makes gasoline supplies last longer, but also an octane booster.

MYTH #7

Sugarcane ethanol is a unique solution from which only Brazil can benefit

FACT

More than 100 countries grow sugarcane and most could produce and use ethanol, repeating Brazil's successful experience. The potential for expansion is impressive. According to FAO, only 10% of the world 200 million hectares (excluding forest and protected areas) available and suitable for sugarcane production are actually used. Most sugarcane producing countries are tropical, developing countries that would benefit tremendously from an opportunity for significant economic development. Ethanol production and use creates jobs, fosters development of new technologies, allows for the introduction of cheap renewable electricity in rural areas, cuts down on oil imports, and provides new export opportunities. Ethanol production in 100 countries would also enhance energy security by reducing the world reliance on only 20 oil producing countries.

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