FAQ

The biofuel industry is faced with many questions regarding sustainability, and economic, environmental and social issues. The answers are often highly dependent on local circumstances. Biofuel Energy appreciates the increasing focus on the industry. Below we have answered some of the most Frequently Asked Questions (FAQ).

1. **Is biofuels/ethanol an answer to the climate change challenge?**
   Biofuels are a way of reducing greenhouse gas emissions compared to conventional transport fuels. Burning the fuels releases carbon dioxide; but growing the plants absorbs a comparable amount of the gas from the atmosphere. However, energy is used in farming and processing the crops, and this can make biofuels as polluting as petroleum-based fuels, depending on what is grown and how it is treated. This underpins the need for efficient value chains. Research shows that most biofuels reduces emissions by 30 to 60 per cent, compared to up to 90 per cent with sugar cane ethanol.

2. **Are Biofuel Energy's activities in conflict with rain forest preservation?**
   No, Biofuel Energy is located in Paranapanema, Sao Paulo state, around 1300 km from the nearest rain forest.

3. **Does Biofuel Energy contribute to higher food prices and weakened food security?**
   No, Biofuel Energy's Brazilian operations are not in conflict with food production. Brazil has the capacity to take on the sugar cane ethanol expansion. The Organisation for Economic Co-operation and Development and the Food and Agriculture Organisation of the United Nations anticipates that the Brazilian sugar cane production will double from 2006 until 2016. This doubling is not anticipated to put significant pressure on agricultural land.

4. **How does Biofuel Energy affect local biodiversity?**
   Brazilian laws regarding land use are becoming stricter each year. Biofuel Energy fully meets the legislation, as a part of the more overall environmental awareness embedded in field and industrial operations, and the business model of the company.

   From all land available to plant sugar cane, at least 20 per cent is kept as a reserve of native trees and forests. In these areas, local fauna live undisturbed. If an isolated tree is found and its removal is inevitable, before doing so Biofuel Energy plants 7 similar trees in a protected area.

   Biofuel Energy keeps a distance of 30m from rivers, not interfering with their natural courses and preserving the fish and other forms of life, and 50m from water springs, which also constitutes an additional reserve area.

   All liquid residues (vignasse) from the industrial plant are returned to the field and act as a natural fertilizer.

5. **How are the working conditions of Biofuel Energy employees in Brazil?**
   Biofuel Energy's employees' working conditions are industry best practice. The company has a modern value chain with automated agricultural operations.

   All employees have tariff wages, life insurance and social rights. Biofuel Energy provides medical and dental assistance to the employees and their families and has placed a local ambulatory so that employees and their families have an easier access to assistance if needed.

6. **How does the agri-energy development in Brazil affect wealth distribution in a country with challenging social differences?**
   The increased investments in the biofuel industry in Brazil are welcomed. It creates economic growth and rural jobs, both factors important in raising the standard of living.

7. **Should the global community not wait for more efficient second generation biofuels?**
   Brazilian sugar cane ethanol makes good sense today. It meets the needs of the present. There is no conflict between today's effort in the Brazilian ethanol industry and the implementation of second generation biofuels - when they are ready.

8. **Is Biofuel Energy's business sustainable?**
   The sustainability of the modern Brazilian ethanol industry is recognized by many. According to the United Nations, Brazil has one of the cleanest energy economies in the world and the country is one of the few nations to successfully produce biofuels on a large scale. Brazil has many advantages, such as long harvest cycles, a lot of sun and more unused potential cropland than any other nation.

Sources and further reading

- **IEA** 2007 *World Energy Outlook 2007* www.worldenergyoutlook.org
- **OECD** 2007 *Biofuels for Transport: Policies and Possibilities* www.oecd.org/tad
- **OECD- FAO** 2007 *Agricultural outlook 2007-2016* www.oecd.org
- **UN-Energy** 2007 *Sustainable Bioenergy: A Framework for Decision Makers* www.un.org
- **ZERO – Zero Emission Resource Organization** 2007 *Biofuels and poverty* www.zero.no