



Food for Fuel?

USC Canada Fact Sheet on Biofuels (aka Agrofuels)

The Connection Between Biofuels and the Food Crisis

Land that was used for growing food is now being used to grow crops for bio-fuels. As a result, there is less food available on world markets, prices have increased, and poor families have less food to eat.

- According to a recent World Bank report, 75% of recent food price increases were caused by the use of food for fuel.
- Stocks of corn that could have been used to reduce poverty during the food crisis have instead been used to fuel cars in the US. The United Nations says it takes 232kg of corn to fill a 50-litre car tank with ethanol. That is enough to feed a child for a year. A major UK newspaper, the Telegraph, has suggested that “the mass diversion of the grain harvest into ethanol plants for fuel is reaching its political and moral limits.”
- The World Bank indicates, for example, that “the increase in global production and yields were above trend and would have been more than adequate to accommodate demand growth and even add to global stocks without the large increase in biofuel use”.

Family farmers in developing countries are losing their land, which they need to feed their families, to big firms that are growing biofuel crops.

- In South East Asia, for example, land is being taken aggressively to grow palm, and in Africa, to grow jatropha -- for export to the US, EU and Canada, to meet these countries' laws that require all gas at the pump to include biofuels.
- In Colombia, there is documented evidence of farming communities being forced off their land, and into slums, by firms looking to grow soy for biofuels. Farmers need their land to feed their families, and without it, they become more vulnerable, hungry and poor. The UN Human Rights Commission has condemned the practice of forced eviction as a “gross violation of human rights, in particular the right to adequate housing”.

What's Canada doing?

- On June 26, 2008, Canada adopted a law (Bill C-33) allowing federal government to implement regulations requiring 5% average biofuel content in gasoline by 2010. Subsequent regulations would also require 2% average renewable content in diesel and heating oil by 2012.
- The biofuel processing industry has argued that this Bill will help Canadian farmers, but evidence suggests Canada won't be able to grow enough food to make this quantity of fuel – even if much of the land where wheat is currently grown, and sent to developing countries, was converted to biofuels. This means that biofuel and biodiesel crops will be bought in developing countries where these crops replace food crops.
- In debate, one Senator said “I think we all find using food crops for fuel to be somewhat offensive.”, but the Bill was passed. Regulations which are being written in Summer and Fall 2008 will determine whether Canadians buy fuel that takes food away from the poor.

Are agrofuels good for the environment?

- According to Nobel Prize winner Professor Paul Crutzen, agrofuels from canola and maize are actually worse for greenhouse gas emissions than fossil fuels -- since fertilizer-fed row crops emit some 3-5% of the nitrogen fertilizer they use into the atmosphere, and because nitrogen oxide emissions are 296 times worse for the climate than carbon dioxide.
- Agrofuels emit climate-changing greenhouse gases throughout their lifecycles: when land is cleared to plant them, when fertilizers are created using greenhouse gases, when soils release carbon, when farm machinery is used, and when the crop gets transported and processed.
- A study from Cornell University and University of California-Berkeley found that corn ethanol requires 29% more fossil energy than the fuel produced; soybean requires 27% more, and sun-flower plants 118 % more.
- The conversion of tropical forests and biodiversity-rich wetlands into biofuel plantations has been environmentally devastating for the environment in South East Asia. Every tonne of palm oil produced in Southeast Asia results in up to 33 tonnes of CO₂ emissions – 10 times that produced by burning an equivalent volume of petroleum.
- Indonesia has about 6M hectares of oil palm and the government supports further clear-cutting to grow more. If this goes ahead, up to 50 billion tonnes of carbon are likely to be released into the atmosphere – the equivalent of over six years of global fossil fuel burning.
- Biofuels are inefficient users of water – which is likely to be an increasingly scarce and important resource as temperatures mount in tropical areas – and generate pollution.

What else can we do?

- Overall subsidies to ethanol and biodiesel are currently estimated at US\$5.5-7.5B. It costs \$500 to reduce carbon dioxide by a ton using subsidies for biofuels, but that amount could purchase more than 30 metric tons of carbon reductions at the European Climate Exchange.
- Costs of reducing deforestation are much lower than subsidizing biofuels – and by reducing the number of trees that are cut down, you reduce the number of human rights violations towards indigenous peoples and local communities. Investing in energy-efficient technologies – like cleaner refrigerators and industrial machinery – would reduce CO₂ significantly. The internet generates as much greenhouse gas emissions as the global transportation sector, so conservation technologies here is very important. Consumer actions are also important!
- Encourage policies that invest in other renewable energies to reduce our ecological footprint.

What about using non-food inputs for biofuels?

- There are technologies in development to convert non-food materials, like grasses, algae, garbage, and crop residues into biofuels. These so-called “second generation” biofuels wouldn’t use food, and would instead use materials that don’t usually need agricultural land.
- Many of these biofuels are based on genetically modified (GM) crops, which pose threats to the environment. Also, using crop residues like corn stalks for agrofuels would take away an important input into the soil, and reduce soil fertility.
- 2nd-generation biofuels, based upon synthetic inputs, will according to most scientists not be ready for at least 10 years – until then, biofuels will continue to be made from food – in a world still struggling to reduce the number of people in chronic hunger.