The most destructive crop on earth is no solution to the energy crisis

Over the past two years I have made an uncomfortable discovery. Like most environmentalists, I have been as blind to the constraints affecting our energy supply as my opponents have been to climate change. I now realise that I have entertained a belief in magic.

In 2003, the biologist Jeffrey Dukes calculated that the fossil fuels we burn in one year were made from organic matter "containing 44 x 1018 grams of carbon, which is more than 400 times the net primary productivity of the planet's current biota". In plain English, this means that every year we use four centuries' worth of plants and animals.

The idea that we can simply replace this fossil legacy - and the extraordinary power densities it gives us - with ambient energy is the stuff of science fiction. There is simply no substitute for cutting back. But substitutes are being sought everywhere. They are being promoted today at the climate talks in Montreal, by states - such as ours - that seek to avoid the hard decisions climate change demands. And at least one substitute is worse than the fossil-fuel burning it replaces.

The last time I drew attention to the hazards of making diesel fuel from vegetable oils, I received as much abuse as I have ever been sent for my stance on the Iraq war. The biodiesel missionaries, I discovered, are as vociferous in their denial as the executives of Exxon. I am now prepared to admit that my previous column was wrong. But they're not going to like it. I was wrong because I underestimated the fuel's destructive impact.
Before I go any further, I should make it clear that turning used chip fat into motor fuel is a good thing. The people slithering around all day in vats of filth are performing a service to society. But there is enough waste cooking oil in the UK to meet a 380th of our demand for road transport fuel. Beyond that, the trouble begins.

When I wrote about it last year, I thought that the biggest problem caused by biodiesel was that it set up a competition for land use. Arable land that would otherwise have been used to grow food would instead be used to grow fuel. But now I find that something even worse is happening. The biodiesel industry has accidentally invented the world's most carbon-intensive fuel.

In promoting biodiesel - as the EU, the British and US governments and thousands of environmental campaigners do - you might imagine that you are creating a market for old chip fat, or rapeseed oil, or oil from algae grown in desert ponds. In reality you are creating a market for the most destructive crop on earth.

Last week, the chairman of Malaysia's federal land development authority announced that he was about to build a new biodiesel plant. His was the ninth such decision in four months. Four new refineries are being built in Peninsula Malaysia, one in Sarawak and two in Rotterdam. Two foreign consortiums - one German, one American - are setting up rival plants in Singapore. All of them will be making biodiesel from the same source: oil from palm trees.

"The demand for biodiesel," the Malaysian Star reports, "will come from the European Community ...

This fresh demand ... would, at the very least, take up most of Malaysia's crude palm oil inventories." Why? Because it is cheaper than biodiesel made from any other crop.

In September, Friends of the Earth published a report about the impact of palm oil production. "Between 1985 and 2000," it found, "the development of oil-palm plantations was responsible for an estimated 87 per cent of deforestation in Malaysia". In Sumatra and Borneo, some 4 million hectares of forest have been converted to palm farms. Now a further 6 million hectares are scheduled for clearance in Malaysia, and 16.5 million in Indonesia.

Almost all the remaining forest is at risk. Even the famous Tanjung Puting national park in Kalimantan is being ripped apart by oil planters. The orangutan is likely to become extinct in the wild. Sumatran rhinos, tigers, gibbons, tapirs, proboscis monkeys and thousands of other species could go the same way. Thousands of indigenous people have been evicted from their lands, and some 500 Indonesians have been tortured when they tried to resist. The forest fires which every so often smother the region in smog are mostly started by the palm growers. The entire region is being turned into a gigantic vegetable oil field.

Before oil palms, which are small and scrubby, are planted, vast forest trees, containing a much greater store of carbon, must be felled and burnt. Having used up the drier lands, the plantations are moving into the swamp forests, which grow on peat. When they've cut the trees, the planters drain the ground. As the peat dries it oxidises, releasing even more carbon dioxide than the trees. In terms of its impact on both the local and global environments, palm biodiesel is more destructive than crude oil from Nigeria.

The British government understands this. In a report published last month, when it announced that it would obey the EU and ensure that 5.75% of our transport fuel came from plants by 2010, it admitted "the main environmental risks are likely to be those concerning any large expansion in biofuel feedstock production, and particularly in Brazil (for sugar cane) and south-east Asia (for palm oil plantations)."

It suggested that the best means of dealing with the problem was to prevent environmentally destructive fuels from being imported. The government asked its consultants whether a ban would infringe world trade rules. The answer was yes: "Mandatory environmental criteria ... would greatly increase the risk of international legal challenge to the policy as a whole." So it dropped the idea of banning imports, and called for "some form of voluntary scheme" instead. Knowing that the creation of this market will lead to a massive surge in imports of palm oil, knowing that there is nothing meaningful it can do to prevent them, and knowing that they will accelerate rather than ameliorate climate change, the government has decided to go ahead anyway.

At other times it happily defies the EU. But what the EU wants and what the government wants are the same. "It is essential that we balance the increasing demand for travel," the government's report says, "with our goals for protecting the environment." Until recently, we had a policy of reducing the demand for travel. Now, though no announcement has been made, that policy has gone. Like the Tories in the early 1990s, the Labour administration seeks to accommodate demand, however high it rises. Figures obtained last week by the campaigning group Road Block show that for the widening of the M1 alone the government will pay £3.6bn - more than it is spending on its entire climate change programme. Instead of attempting to reduce demand, it is trying to alter supply. It is prepared to sacrifice the south-east Asian rainforests in order to be seen to be doing something, and to allow motorists to feel better about themselves.

All this illustrates the futility of the technofixes now being pursued in Montreal. Trying to meet a rising demand for fuel is madness, wherever the fuel might come from. The hard decisions have been avoided, and another portion of the biosphere is going up in smoke.

By George Monbiot, December 6, 2005, The Guardian,
http://www.guardian.co.uk/climatechange/story/0,12374,1659037,00.html