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BIOFUELS

TIM BLACK





MOTION:

"GOVERNMENTS SHOULD STOP SUPPORTING THE BIOFUELS INDUSTRY"

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Over the past decade, increasing the production of biofuels [Ref: <u>New Internationalist</u>] - in the main, liquid fuels made from crops such as corn, sugarcane and rapeseed - has become something of a priority for governments in the West. The reason seems clear enough. Biofuels hold out the promise of an environmentally friendly and plentiful supply of energy that would diminish Western reliance on oil. So, in the absence of willing private investors [Ref: <u>ClickGreen</u>], successive governments in Europe [Ref: <u>BBC News</u>] and the US [Ref: <u>BusinessGreen</u>] have both set targets for increased biofuel use and handed out significant subsidies [Ref: <u>DECC</u>] to biofuel producers in an attempt to meet those targets. The effects have been dramatic. In the US alone ethanol production from corn crops increased from 1.6 billion gallons in 2000 to 13.6 billion gallons in 2010.

But in recent years, political support for biofuels has come under attack [Ref: <u>BBC News</u>] from a variety of quarters. Environmentalists, for instance, claim that biofuels are not as green as it was originally claimed [Ref: <u>Guardian</u>] and, in some instances, emit more CO2 than fossil fuels [Ref: <u>Telegraph</u>]. Elsewhere, the political and financial support for the biofuel industry has been blamed for the global food price crisis [Ref: <u>Guardian</u>]. Instead of trying to increase energy production, the critics of biofuels conclude, Western governments should be focusing on decreasing energy consumption.







THE BIOFUELS DEBATE IN CONTEXT

Environmentally friendly?

The environmental credentials of biofuels have long been championed. The idea is simple enough: although the burning of biofuel releases CO2, the growing of the crops for the biofuel will absorb a comparable amount of CO2. As the Observer reported in 2006, 'There is no overall addition to atmospheric levels of the gas... it is merely recycled' [Ref: Guardian]. The contrast with fossil fuels is striking: 'petrol and diesel are pumped from reservoirs laid down millions of years ago. Burning them adds to atmospheric carbon dioxide levels.' An International Energy Agency report from earlier this year was similarly enthusiastic: 'the projected use of biofuels could avoid around 2.1 gigatonnes of CO2 emissions per year when produced sustainably' [Ref: Yahoo]. Little wonder that after a successful biofuelled test flight by a British plane, aviation minister Theresa Villiers was moved to declare: 'The government believes that sustainable biofuels have a role to play in efforts to tackle climate change, particularly in sectors where no other viable low carbon energy source has been identified - as is the case with aviation.' [Ref: Daily Mail]. For its critics, however, biofuels are far from being the saviour of the planet. Some such as the World Wildlife Fund's Jason Clay are concerned by the threat to biodiversity posed by the mass growing of single crops, be they palm, rape, or corn [Ref: Guardian]. Others point out that the total CO2 emissions involved in clearing, harvesting, processing and transporting biofuels not only negate the putative environmental benefits of biofuels, they end up making them more harmful to the environment than fossil fuels. In Brazil, for instance, the demand for biofuels has given rise to large-scale deforestation [Ref: <u>Time</u>]. But the most prominent current criticism of

biofuels' environmental credibility has been what the Scientific Committee of the European Environment Agency recently described as a 'serious environmental accountancy error': that is, there is no reduction in CO2 emissions if the land on which a biofuel crop is planted was already being used to grow food crops [Ref: <u>Reuters</u>]. The EU energy commission, for one, has countered such accusations by asserting that 'We believe it's better to use biofuels than petrol, because biofuels emit much less carbon dioxide'.

Fuel versus food

By far the most pointed criticism of governmental support for biofuels, however, has centred on the extent to which US and European governments, by encouraging farmers to grow crops for fuel instead of food, have helped create a global food crisis. The Global Hunger Index was certainly in no doubt and blamed the heavily subsidised US corn-for-ethanol industry for the rising food prices of the last few years [Ref: Guardian]. In Slate magazine, Bjorn Lomborg substantiated this argument, noting that noting that 6.5 per cent of global grain output and 8 per cent of vegetable oil had been used as biofuels in 2010 [Ref: <u>Slate</u>]. As Mark Lynas put it in the New Statesman, 'What biofuels do is undeniable: they take food out of the mouths of starving people and divert them to be burned as fuel in the car engines of the world's rich consumers.' [Ref: New <u>Statesman</u>]. But others argue that the biofuel industry is being made a scapegoat for increased food prices and subsequent food shortages. In spiked, for instance, Rob Lyons writes that blaming biofuel production for the food crisis means that 'important factors will go unaddressed' [Ref: spiked]. These

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BIOFUELS: "Governments should stop supporting the biofuels industry"





THE BIOFUELS DEBATE IN CONTEXT CONTINUED...

factors include the vast and equally subsidised 'retirement' of land from agricultural production in the US and Europe during the 1980s and 1990s due to overproduction, and, as Lewis Smith records in The Times, the hardship and inefficiency of much food production in the rest of the world, from 'grossly inefficient Thai paddy fields' to 'Indian irrigation systems... in need of massive investment' [Ref: The Times]. As two scientists argue in Nature magazine, it is not biofuel production that is the problem, but inefficient food production. The answer, they contend, is to raise agricultural productivity, not blame the biofuel industry: 'Most parts of Africa have plenty of land that could be productive while under-development fuels hunger'. In fact, they continue, biofuel production could provide those living in less developed regions of the world both with a purpose for land unsuited to food production, and a potential means of economic growth [Ref: SciDev]

A waste of time, money and energy?

While biofuels have certainly been embroiled in controversy over the past few years, technological progress continues to be made. Alongside a test flight carried out by Thomson airlines, Air China has also flown its first biofuelled flight. Towards the end of 2011, it was reported that the aviation industry is closer to using biofuel routinely [Ref: <u>New York Times</u>]. Moreover, there is much talk of second-generation non-ethanol, non-food-based biofuels, so much so that the Economist reported 'Biofuels are back and this time they might even work' [Ref: <u>Economist</u>]. Certainly, faith in the potential of biofuels is such that US President Barack Obama's 'energy vision', in which second generation biofuels are to be funded, was praised by the New York Times for potentially freeing the US from its dependence on energy imports [Ref: New York Times]. In the form of biofuels, nation states previously reliant on energy supplies from volatile regions of the world can achieve a degree of energy security, argue its supporters. Yet criticisms of biofuel as an actual energy source persist. The aviation successes are dismissed as unsustainable PR stunts [Ref: Epoch Times]. Compared to that to which it poses as an alternative, namely, petrol, biofuels remain hopelessly inefficient [Ref: Guardian]. Others note that to produce biofuel in sufficient guantities would result in 'most of the arable surface of the planet being deployed to produce food for cars, not people' [Ref: Guardian]. And to those who talk of the potential of second generation biofuels, a columnist in the Financial Times responds scathingly: 'The industry's bluff that [burning food crops] merely serves as a bridge to second-generation biofuels should finally be called: non-food alternatives are perpetually "a few years away".' [Ref: FT].Some advocates of biofuels counter that the problem is expectation: biofuels should not be seen as a silver bullet for either climate change or energy security. Instead, they call for continued government support on the basis, as Andrew Meeks puts it in the New Statesman, that although biofuels can only play a 'modest' role in our meeting energy needs, that is 'no reason not to pursue it' [Ref: New Statesman]. Instead of dismissing biofuels as problem, is not it not possible to see them potentially providing part of the solution to our energy needs? To those calling for the continued support of biofuels, the possibility of continuing to meet people's energy needs remains central. But for those opposed to the biofuel industry, governments in the West would be better off finding ways to encourage their citizens not to consume so much.



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ESSENTIAL READING

Biofuels - the good, the bad and the Ugly Danny Chivers New Internationalist 1 July 2011

Biofuels, Biodiesel and Ethanol New York Times 17 June 2011

Quick guide: Biofuels BBC 24 January 2007

FOR

Scientific advisers urge rethink of EU biofuel policy Charlie Dunmore *Reuters* 16 September 2011

Bio hazard: barons of subsidy Financial Times 12 June 2011

<u>The Ethanol Catastrophe</u> Bjorn Lomborg *Slate* 10 March 2011

<u>Biofuels: a growing evil</u> Jeremy Warner *Telegraph* 27 October 2010

<u>The adoption of biofuels would be a humanitarian and</u> <u>environmental disaster for the planet</u> George Monbiot *Guardian* 23 November 2004

AGAINST

Flying with biofuel gets one step closerSonia Kolesnikov New York Times 25 October 2011A next-generation biofuel strategyWarren Mabee and Donald L Smith Star 16 October 2011Boosting bioenergy needn't sacrifice food securityLee R Lynd and Jeremy Woods Nature 28 June 2011IEA report confirms that biofuels can enhance energy securitywhile reducing GHG emissionsYahoo 21 April 2011Could sugar cane save the planet?Robin McKie and Ned Temko Observer 17 September 2006

IN DEPTH

<u>FAO's new chief defends biofuels</u> Javier Bias *Financial Times* 28 June 2011

<u>Policy: Fuelling politics</u> Martin Robbins *Nature* 23 June 2011

The future of biofuels: The post-alcohol world Economist 28 October 2010

<u>How the rich starved the world</u> Mark Lynas *New Statesman* 17 April 2008

Food price crisis: feasting on apocalyptic porn Rob Lyons *spiked* 15 April 2008

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BACKGROUNDERS

Biofuels: Fields of Pipedreams Larry Bell Forbes 8 November 2011 US military support for biofuels will drive commercial roll-out ClickGreen 1 October 2011 President Obama Announces Major Initiative to Spur Biofuels Industry and Enhance America's Energy Security Whitehouse 16 August 2011 Perspective: A new hope for Africa Le Lynd and Jeremy Woods Nature 23 June 2011 Even the UN Hates Ethanol Wall Street Journal 14 June 2011 The great fuel fail: ethanol from corn Henry Miller *Guardian* 12 May 2011 Fossil fuel subsidies are 10 time those of renewables, figures show Guardian 3 August 2010 Mr Obama's Energy Vision New York Times 31 March 2011 Interview: Lord Browne of Madingley on biofuels alarmism Lord Browne The Times 20 October 2008 Europe to reaffirm biofuels targets David Gow Guardian 10 September 2008 Biofuels make useful villain for food crisis Leo Lewis The Times 4 June 2008 The Clean Energy Scam Michael Grunwald Time 27 March 2008

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<u>Biofuels Deemed a Greenhouse Threat</u> Elisabeth Rosenthal *New York Times* 8 February 2008

<u>Biofuels – love them or loathe them</u> Graham Meeks *New Statesman* 2 July 2007

<u>Biofuels 'will not lead to hunger'</u> Peter Kendall *BBC News* 5 October 2006

ORGANISATIONS

Department of Energy and Climate Change

European Commission - Energy

Food and Agriculture Organization of the United Nations (FAO)

No Oil Palm Energy (NOPE)

OECD Food and Agriculture Directorate

Renewable Energy Centre







IN THE NEWS

UDE

US Airlines begin powering flights with biofuels Guardian 8 November 2011 Coalition's commitment to bioenergy a 'great relief' says NFU Farmers' Guardian 25 October 2011 Britain's first biofuel passenger flight touches down amid worries from environmentalists Daily Mail 7 October 2011 Senate vote marks start of end for ethanol subsidies *Reuters* 16 June 2011 Jatropha biofuel 'produces six times greenhouse gas emission of fossil fuels' *Telegraph* 22 March 2011 Bristol biofuel plant given go-ahead by Eric Pickles BBC News 12 February 2011 Biofuels will up Euro greenhouse emissions New Scientist 11 November 2010 UK government told to cut 2020 biofuels target Reuters 10 September 2010 BP Oil Spill shows need for biofuels, developers say Reuters 27 May 2010 New Biofuels Regs Could Face Fight From Capitol Hill New York Times 4 February 2010 Politicians will put focus on biofuels Telegraph 6 December 2009 UK gets biofuels research centre BBC News 27 January 2009

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NOTES

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Slowdown ordered on biofuels

Los Angeles Times 5 June 2008

Petrol must now include biofuels

New York Times 23 January 2007

US battles over biofuels at UN summit

Bush calls for increase in renewable fuels

More biofuels, renewable energy in EU plans

Telegraph 7 July 2008

BBC News 15 April 2008

CBC News 10 January 2007

Business Car 6 December 2006

Tax breaks for biofuels



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