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Biofuels could kill more people than the Iraq war.

By George Monbiot. Published in the Guardian 6th November 2007

It doesn't get madder than this. Swaziland is in the grip of a famine and receiving emergency food aid. Forty per cent of its people are facing acute food shortages. So what has the government decided to export? Biofuel made from one of its staple crops, cassava(1). The government has allocated several thousand hectares of farmland to ethanol production in the county of Lavumisa, which happens to be the place worst hit by drought(2). It would surely be quicker and more humane to refine the Swazi people and put them in our tanks. Doubtless a team of development consultants is already doing the sums.

This is one of many examples of a trade described last month by Jean Ziegler, the UN's special rapporteur, as "a crime against humanity"(3). Ziegler took up the call first made by this column for a five-year moratorium on all government targets and incentives for biofuel(4): the trade should be frozen until second-generation fuels - made from wood or straw or waste - become commercially available. Otherwise the superior purchasing power of drivers in the rich world means that they will snatch food from people's mouths. Run your car on virgin biofuel and other people will starve.

Even the International Monetary Fund, always ready to immolate the poor on the altar of business, now warns that using food to produce biofuels "might further strain already tight supplies of arable land and water all over the world, thereby pushing food prices up even further."(5) This week the UN Food and Agriculture Organisation will announce the lowest global food reserves in 25 years, threatening what it calls "a very serious crisis"(6). Even when the price of food was low, 850 million people went hungry because they could not afford to buy it. With every increment in the price of flour or grain, several million more are pushed below the breadline.

The cost of rice has risen by 20% over the past year, maize by 50%, wheat by 100%(7). Biofuels aren't entirely to blame - by taking land out of food production they exacerbate the effects of bad harvests and rising demand - but almost all the major agencies are now warning against expansion. And almost all the major governments are ignoring them.

They turn away because biofuels offer a means of avoiding hard political choices. They create the impression that governments can cut carbon emissions and - as Ruth Kelly, the British transport secretary, announced last week(8) - keep expanding the transport networks. New figures show that British drivers pattered past the 500 billion kilometre mark for the first time last year(9). But it doesn't matter: we just have to change the fuel we use. No one has to be confronted. The demands of the motoring lobby and the business groups clamouring for new infrastructure can be met. The people being pushed off their land remain unheard.

In principle, burning biofuels merely releases the carbon they accumulated when they were growing. Even when you take into account the energy costs of harvesting, refining and transporting the fuel, they produce less net carbon than petroleum products. The law the British government passed a fortnight ago - by 2010, 5% of our road transport fuel must come from crops(10) - will, it claims, save between 700,000 and 800,000 tonnes of carbon a year(11). It derives this figure by framing the question carefully. If you count only the immediate carbon costs of planting and processing biofuels, they appear to reduce greenhouse gases. When you look at the total impacts, you find that they cause more warming than petroleum.

A recent study by the Nobel laureate Paul Crutzen shows that the official estimates have ignored the contribution of nitrogen fertilisers. They generate a greenhouse gas - nitrous oxide - which is 296 times as powerful as CO₂. These emissions alone ensure that ethanol from maize causes between 0.9 and 1.5 times as much warming as petrol, while rapeseed oil (the source of over 80% of the world's biodiesel) generates 1-1.7 times the impact of diesel(12). This is before you account for the changes in land use.

A paper published in Science three months ago suggests that protecting uncultivated land saves, over 30 years, between two and nine times the carbon emissions you might avoid by ploughing it and planting biofuels(13). Last year the research group LMC International estimated that if the British and European target of a 5% contribution from biofuels were to be adopted by the rest of the world, the global acreage of cultivated land would expand by 15%

(14). That means the end of most tropical forests. It might also cause runaway climate change.

The British government says it will strive to ensure that “only the most sustainable biofuels” will be used in the UK(15). It has no means of enforcing this aim - it admits that if it tried to impose a binding standard it would break world trade rules(16). But even if “sustainability” could be enforced, what exactly does it mean? You could, for example, ban palm oil from new plantations. This is the most destructive kind of biofuel, driving deforestation in Malaysia and Indonesia. But the ban would change nothing. As Carl Bek-Nielsen, vice chairman of Malaysia’s United Plantations Bhd, remarked, “even if it is another oil that goes into biodiesel, that other oil then needs to be replaced. Either way, there’s going to be a vacuum and palm oil can fill that vacuum.”(17) The knock-on effects cause the destruction you are trying to avoid. The only sustainable biofuel is recycled waste oil, but the available volumes are tiny(18).

At this point the biofuels industry starts shouting “jatropha!” It is not yet a swear word, but it soon will be. Jatropha is a tough weed with oily seeds that grows in the tropics. This summer Bob Geldof, who never misses an opportunity to promote simplistic solutions to complex problems, arrived in Swaziland in the role of “special adviser” to a biofuels firm. Because it can grow on marginal land, jatropha, he claimed, is a “life-changing” plant, which will offer jobs, cash crops and economic power to African smallholders(19).

Yes, it can grow on poor land and be cultivated by smallholders. But it can also grow on fertile land and be cultivated by largeholders. If there is one blindingly obvious fact about biofuel it’s that it is not a smallholder crop. It is an internationally-traded commodity which travels well and can be stored indefinitely, with no premium for local or organic produce. Already the Indian government is planning 14m hectares of jatropha plantations(20). In August the first riots took place among the peasant farmers being driven off the land to make way for them(21).

If the governments promoting biofuels do not reverse their policies, the humanitarian impact will be greater than that of the Iraq war. Millions will be displaced, hundreds of millions more could go hungry. This crime against humanity is a complex one, but that neither lessens nor excuses it. If people starve because of biofuels, Ruth Kelly and her peers will have killed them. Like all such crimes it is perpetrated by cowards, attacking the weak to avoid confronting the strong.

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