

COVALENCE ANALYST PAPERS

Fuelling Debate: the Biofuels Dilemma

Daria Gorbounova | London School of Economics (UK) | intern analyst, Covalence SA, Geneva, 02.05.2008

Introduction

This paper will begin with a brief introduction to biofuels and the food crisis. Its underlying causes will then be invoked, and biofuels' culpability will be examined. Using the criteria of the Covalence Ethical Quotation system, I will then argue that a corporate social responsibility demand can indeed be made upon MNEs involved in biofuels – a demand pertaining to their institutional impact on human rights. Following this, ethical dilemmas arising from the biofuels case study will be discussed. Then, in the MNEs' defence, it will be explained that it is actually well-intentioned, albeit ultimately damaging government policy which underlies the sudden surge in biofuel production. To conclude, potential paths for solving the food crisis, or at least for lessening its severity, will be proposed.

Biofuels

Biofuels are fuels made from any renewable organic source, the most common varieties being bioethanol and biodiesel. At present, biofuels are mainly made from agricultural crops (agrifuels). For instance, sugarcane is used for agrifuel production in Brazil, soybeans and corn in the United States, wheat, sugar beet and rapeseed in Europe and palm oil in Asia. The biofuels industry comprises many MNEs: directly involved producers, suppliers, as well as consumers using biofuels in their own production process. Here is but a snippet of the most well-known companies concerned: BP, Shell, Peugeot, Honda, Daimler, BMW, Volkswagen, Nestle, Suzuki, Dow Chemical, Cargill, Procter & Gamble, DuPont, General Motors, Kraft Foods, Vera Sun Energy, Monsanto, Tereos, Abengoa, Poet LLC, EOP and Unilever.

Biofuels are nothing new – in fact, Henry Ford designed one of his first vehicles to run on ethanol. However, for many years this energy source was simply overshadowed by cheap and easily accessible oil. Nowadays, skyrocketing oil prices, concerns about peak oil and the security and of energy supply (some oil reserves being located in politically volatile areas, others being difficult to extract), as well as alarm about the nefarious effects of burning fossil fuels on the environment have prompted the search for alternatives. Thus biofuels entered the limelight.

Biofuels constitute an energy source with a significantly reduced carbon footprint, as the carbon emitted during their combustion is compensated for by the carbon absorbed by its inputs, such as corn, before they are

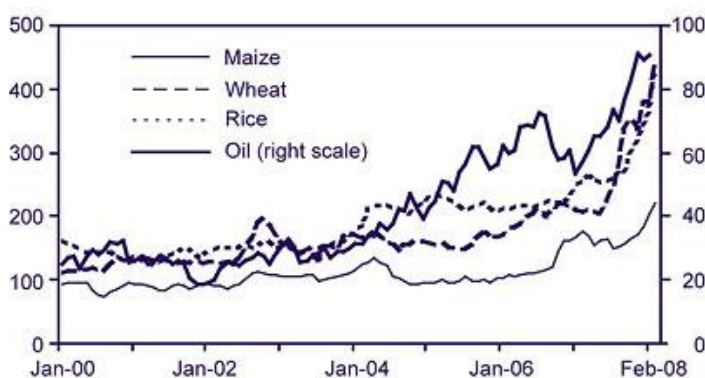
harvested. Switching to biofuels allows states to rely less on foreign oil and oil in general, as well as to secure their energy supplies in the long-term, since biofuels are renewable and sustainable. Moreover, the switch to biofuels would democratise energy production: any state with an agricultural sector could participate, unlike with oil, where there is an arbitrary and highly asymmetric resource distribution. Hence there is enormous potential for developing countries to participate and improve their economic situation.

Nonetheless, the benefits remain contested. Some claim that the amount of fossil fuels burnt for harvesting, processing and transporting biofuels is significant. Critics claim that biofuels carry many other environmental risks, for example, loss of biodiversity due to mono-cropping and the clearing of large areas of rainforests to free-up land, that which could negate the carbon savings made from biofuels. Local populations are also often displaced to make space for agrifuel crops. It is possible that developing country farmers will not be able to benefit, for biofuel production favours large-scale farming, making it a struggle for small-holdings. Lastly, of course, it has been said that biofuels are culpable for the recent food price inflation.

The Food Crisis

The food crisis entailed an unprecedented increase in the cost of many types of food stuffs, many doubling in price in just a matter of months, as the graph below illustrates. Both developed and developing countries felt the squeeze, although the latter, where many people live below the poverty line and spend up to eighty percent of their income on staples such as corn, were hit the hardest. Many were forced to forego consumption of healthcare or education simply because such a large proportion of their earnings went towards buying provisions, leaving little for other needs. Hunger ravaged large chunks of Africa, Asia and South America, leading to civil unrest and food riots in states as varied as Haiti and Egypt, Mexico and Mozambique, Uzbekistan and Yemen, and Senegal and Indonesia, as well as in many other states. These were widely documented by media throughout the world.

World Commodity Prices, January 2000–February 2008 (US\$/metric ton)



Sources: FAO international commodity prices database 2008, and IMF world economic outlook database 2007.

(Graph taken from IFPRI Policy Brief: Rising Food Prices What Should Be Done?, Joachim von Braun, *International Food Policy Research Institute*, April 2008. Accessed from <http://www.ifpri.org/pubs/bp/bp001.asp> on 25 April 2008.)

Some may ask: is this not what non-governmental organisations (NGOs) have been advocating for years? For farmers in developing countries to be paid a fairer, higher price for their produce? The situation is not as simple as that. International trade liberalisation, despite having made important progress in the last few decades, has not completely dismantled the lopsided system in which developed countries subsidise their industries and dump their goods in developing countries, weakening local industries, notably agriculture. Hence, seventy percent of developing countries are now net importers of food.¹ So while farmers are able to sell their goods at a higher price, a much larger group of people is undergoing great suffering – consumers, particularly consumers in developing countries. Even net exporters of food, such as China, India and Vietnam are foregoing the opportunity to improve their terms of trade by implementing export bans on rice in order to protect domestic consumption. Perhaps one of the best illustrations of the severity of the crisis is the fact that Sam's Club, part of Wal-Mart, is already restricting the amount of rice each customer can purchase so as to prevent hoarding. Astonishingly, this is happening in the United States.

Food Crisis Causes

It is important to recognise that this colossal crisis is multi-causal. Simplistic explanations that focus on a single scapegoat reason are inappropriate for analysing such a complex problem of international development and international economics. The roots of the food price inflation lay in (listed in no particular order): 1. historically low food stocks. 2. Climate change having hampered agricultural production. 3. Growing consumption by emerging economies, especially of meat and dairy, which require large quantities of agricultural crops as feed. 4. Droughts destroying harvests, for instance in Australia. 5. A growing world population that requires more and more produce. 6. An increase in the price of oil, which made running farm equipment and transporting food more expensive – a cost that became implicit in the price of food. 7. The growth in biofuel production.

Biofuels affected the price of foodstuffs in a number of ways. Firstly, as more agricultural crops are demanded for use in biofuel production, less remain available for consumption and prices of crops such as corn rise. Secondly, land is diverted towards production of agrifuels and away from that of other crops. Less space was left for non-agrifuel crops, such as wheat, supply of these crops decreases and their price is driven up. This explains (in part) why seemingly unrelated, non-agrifuel crops, such as rice, became more expensive. Thirdly, developed countries cut down on dumping their agricultural surpluses in developing countries at below market prices as they began using these surpluses in biofuel production.

It is crucial to understand that the problem is *not a food shortage* as such – although food stocks are running low – the issue is that so much food is becoming agrifuel. Little food is left over for consumption, and what is

¹ 'Making a Killing from the Food Crisis', Author unknown, *The Environmental News Network*, 29 April 2008. Accessed from <http://www.enn.com/ecosystems/article/35510> on 1 May 2008.

left becomes very expensive and simply unaffordable for many. The trade-off between food and fuel filling the 25-gallon tank of an SUV with pure ethanol requires over 200kgs of corn – sufficient in terms of calories to feed a person for an entire year.²

It is difficult to quantify biofuels' liability in the food crisis and to disentangle it from the other causes. The International Food Policy Research Institute in Washington calculated that between a quarter and one third of the recent commodity price inflation is attributable to biofuel production; while the Food and Agriculture Organization of the UN predicted in late 2007 that if current trend were to continue, biofuel production would push up food costs by ten to fifteen percent.³

This is, of course, a heated issue, and many high-ranking officials have expressed themselves on this topic. The Qatari Energy Minister, Abdullah bin Hamad Al-Attiyah, illustrated his point clearly with a personal touch: 'Biofuels is making the world face a lot of difficulty. It's created a food shortage. Sometimes I ask myself 'what is more important, driving or eating? I can't stop eating.'⁴ In the opinion of Lester Brown, founder of the Washington-based Worldwatch Institute, 'The competition for grain between the world's 800 million motorists, who want to maintain their mobility, and its 2 billion poorest people, who are simply trying to survive, is emerging as an epic issue.'⁵ Jean Ziegler, the United Nations special rapporteur on the right to food stated quite simply that 'This is silent mass murder.'⁶

Unsurprisingly, not everyone agrees. Luiz Inácio Lula da Silva, President of Brazil, echoing classic dependency theory arguments, feels that biofuels have been unjustly blamed for the crisis: 'Food is expensive because the world wasn't prepared to see millions of Chinese, Indians, Africans, Brazilians and Latin Americans eat. We want to discuss this not with passion but rationality and not from the European point of view...The real crime against humanity is to discredit biofuels *a priori* and condemn food-starved and energy-starved countries to dependence and insecurity.'⁷

Biofuels and CSR: Which Criteria?

² 'How Biofuels Could Starve the Poor', C. Ford Runge and Benjamin Senauer, *Foreign Affairs*, April/May 2008. Accessed from <http://www.foreignaffairs.org/20070501faessay86305-p40/c-ford-runge-benjamin-senauer/how-biofuels-could-starve-the-poor.html> on 1 May 2008.

³ 'Fuel Choices, Food Crises and Finger-Pointing', Andrew Martin, *The New York Times*, 15 April 2008. Accessed from http://www.nytimes.com/2008/04/15/business/worldbusiness/15food.html?_r=5&ref=business&oref=slogin&oref=slogin&oref=slogin&oref=slogin&oref=slogin on 24 April 2008.

⁴ 'Using Fuel to Make Food 'Criminal', Venezuela Says', Fred Pals and Ayesha Daya, *Bloomberg*, 21 April 2008. Accessed from <http://www.bloomberg.com/apps/news?pid=20601086&sid=aVWkvzDDYy3I&refer=news> on 24 April 2008.

⁵ 'Global food crisis looms as climate change and fuel shortages bite', John Vidal, *The Guardian*, 3 November 2007. Accessed from <http://www.guardian.co.uk/environment/2007/nov/03/food.climatechange> on 26 April 2008.

⁶ 'Darling calls for urgent review of biofuel policies', Heather Stewart and Larry Elliot, *The Guardian*, 13 April 2008. Accessed from <http://www.guardian.co.uk/environment/2008/apr/13/biofuels.energy> on 28 April 2008.

⁷ 'Brazil rejects biofuels criticism', Anil Dawar, *The Guardian*, 17 April 2008. Accessed from <http://www.guardian.co.uk/environment/2008/apr/17/biofuels.food> on 28 April 2008.

Covalence records show that up until now, entries on biofuels in Covalence's Ethical Quote CSR assessment system have almost always been coded in terms of *environmental* responsibility, usually using the following criteria: 26. Environmental impact of production, 30. Product environmental risk, 33. Eco-innovative product. Both offers and demands, the latter being more common, could be found. For example, investment in second-generation biofuels, which have a smaller carbon footprint than the first-generation variety, would constitute an offer. The felling of rainforests in order to make space for agrifuel crops illustrates a demand.

The focus of this paper will, however, be a socio-economic dimension of CSR and its limits when applied to biofuels. As stated above, biofuel production is not the sole cause of food price inflation. Nevertheless, it is still a significant contributing cause and it is in fact *the* cause that MNEs (and other actors) can directly and effectively influence. None of the other reasons behind the food crises can be easily mitigated – we cannot simply stop climate change, dictate to people in countries such as China to eat less meat, prevent drought, cap the growth of the world's population or reduce oil prices,. The exception is perhaps, the historically low food stocks, which can be replenished. But these should be seen as a last resort in crises – not a permanent prop for the world to depend on. And also, restocking these would not lower high food prices. Thus we are left with one cause which something can be done about: biofuels. Arguably, MNEs should consider the repercussions of their involvement in this industry in terms of global hunger.

Covalence is seeing more and more articles relating (or blaming) biofuel production to (on) the global food crisis. Which of the Ethical Quote criteria should be used to code articles which relate rising food costs to increased biofuel production? Without doubt, the criteria groups Working Conditions, the Impact of Production and the Impact of the Product can be used, depending on the case at hand. But the working conditions, impacts of the production process and the impact of the biofuels themselves do not actually influence global food prices as such. For example, the seemingly obvious choice, impact of production criteria 35. Pricing/needs is in fact not applicable at all: the problem stems not from the product (biofuels) in price, but from the fact that crops being diverted from consumption purposes.⁸

Hence when addressing the *macro* impact biofuels have on food prices, the criteria group Institutional Impact is most appropriate. Once again, within this group, various criteria may be applied depending on the situation, for instance, lobbying practices. But when talking specifically about the food price inflation engendered by biofuel production, the most fitting criteria is 40. Human Rights Policy. Covalence prescribes the application of this criteria when coding information that pertains to how a company deals, or should deal, with the respect for, and promotion of human rights, internally and externally. It is applicable because the right to food is a widely recognised human right according to Article 25 of the Universal Declaration of Human Rights, which Covalence uses as one of the foundations of its Ethical Quote system: 'Everyone has the right to a standard of living

⁸ All of this makes criteria choices difficult and debatable. I am certain that some will dispute that any notion of CSR can be attached to biofuel production with regard to the food crisis. Still, I believe that the link can be made, at least on an industry-wide level. Furthermore, it must be made in order to push for something to be done about the starvation ensuing throughout the world.

adequate for the health and well-being of himself and of his family, including *food*, clothing, housing and medical care and necessary social services...⁹ (Emphasis added). Admittedly, it is also hard to pinpoint individual MNEs that are culpable, because the excessive growth in biofuel production cannot be blamed on any sole company – the fact that so many companies are involved is part of the problem. Thus the entries made on the subject in Ethical Quote would most likely pertain to the industry as a whole.

Ethical Issues

It is also worth examining the notions of social and environmental responsibility with regard to biofuels *together*, for this raises some imperative ethical questions. First of all, should the environmental benefits of biofuels be foregone in order to keep food affordable? Is it possible to establish a hierarchy of importance among ethical concepts such as the planet and its inhabitants? Such ambiguity is encapsulated in Covalence's recognition of ethical pluralism. Covalence's Ethical Quote system already addresses this: its ethical information analysts must code the opinion expressed by the source they are analysing, disregarding their own moral stance.

Furthermore, the biofuels case brilliantly illustrates another problem recognised by Covalence: scientific uncertainty. A number of years ago, biofuels were thought to be a blessing for the environment and were proudly supported by such renowned environmentalists such as Nobel Peace Prize winner Al Gore. Nowadays, their environmental impact is being re-evaluated and is actually under suspicion, as mentioned above. This case demonstrates that the definition of what it means to be responsible in the environmental sense is fluid and ever-changing. Hence, the trade-off with biofuels is increasingly being conceptualised as one not of reduced carbon emissions versus food, but one of simply cheaper fuel versus food. If the latter is accepted, the case for demanding MNEs to take responsibility for their part in the food crisis becomes that much more convincing.

The Role of Governments

MNEs do not operate in a vacuum – they act in a context shaped by many other actors while also interacting with these actors. Among the actors are governments. Political pressure to address climate change, energy insecurity and rising oil prices pushed governments consider alternative energies. Many governments singled out biofuels and set well-meaning targets for increasing their production. For instance, in an attempt to wean the US off foreign oil, George Bush set the goal of replacing three quarters of US oil imports with renewable energies, among which biofuels, by 2025. The European Union set out the biofuels directive, which mandates for ten percent of its transport fuel to come from biofuels by 2020 (it is now reconsidering this in light of recent events). Individual states within the EU set their own additional targets: for instance, the United Kingdom's Renewable Transport Fuel Obligation calls for five percent of all road transport fuel to be renewable by 2010 (this target is also being questioned). Many developing countries, such as Brazil, did much the same.

⁹ Article 25, Universal Declaration of Human Rights. Accessed from <http://www.un.org/Overview/rights.html> on 1 May 2008.

Governments then went on to grant various subsidies and tax breaks for biofuels, notably for ethanol production in the US. This seriously distorted prices, meaning that the food value of some crops fell below their fuel value.¹⁰ To put it quite simply, using food for fuel was more profitable than using it for consumption. Since the market responds to such economic incentives more readily than to human needs, it's no wonder MNEs diverting crops for use in biofuels. Even if agrifuel crop prices continue to climb, MNEs will still be able to purchase these and continue with biofuel production because government subsidies and tax breaks offset the cost. Moreover, such action would be perfectly justifiable – the MNEs would be good corporate citizens, saving the planet by helping us reach the aforementioned targets for renewable energy set out by governments. Oil prices also play a significant role. If the price per barrel keeps rising (and experts assert that it will continue to do so¹¹), biofuels – an alternative to expensive oil – will remain lucrative no matter how high prices per bushel are, up to a certain point of course. Consumers, however, will find it hard to stomach higher prices on foodstuffs. Ironically, most countries facing starvation due to expensive foodstuffs are also oil importers, for instance Bangladesh. As a result, they will thus be hurt doubly by both food and oil price inflation.

Solving the crisis?

The food crisis requires urgent attention. Several courses of action have been proposed and are evaluated here.

1. Price ceilings on food. While fixing the maximum price that sellers can charge for foodstuffs may relieve pressure on starving populations temporarily, it does not send a signal to farmers to produce more food for consumption because the price they would be paid for their produce is fixed below the market price. Some states, such as the Russian Federation, have, understandably, already implemented this measure.

2. Food aid. Pleas have been made from all directions for donations to be made to the World Food Programme and are getting some favourable responses. The problem is, the Programme's budget was fixed long in advance. With prices increasing, it cannot afford to buy as much food as projected, but at the same time there is now a greater number of people in need of food aid. While the importance of food aid is undeniable, it is unsustainable as a permanent option for feeding the world. It should only be used for a short period, until the worst of the crisis is over. In the long-term, ideally, people should be self-reliant for food – that is, they should be able to feed themselves.

3. Moratorium on biofuels. Such a drastic measure would unquestionably face enormous opposition, not least from MNEs making plum profits from biofuel production. It would also preclude research into, and preparations for cleaner, second-generation biofuels like cellulosic ethanol. These can be made from non-crop

¹⁰ 'Why ethanol production will drive world food prices even higher in 2008', Lester R. Brown, *Cleantech*, 25 January 2008. Accessed from <http://media.cleantech.com/2360/why-ethanol-production-will-drive-world-food-prices-even-higher-in-2008> on 24 April 2008.

¹¹ 'Oil prices near \$104 a barrel as dollar falls to historic low against euro', Jad Mouawad, *International Herald Tribune*, 3 March 2008. Accessed from <http://www.ihf.com/articles/2008/03/03/business/econ.4-233012.php> on 24 April 2008.

organic sources such wood, manure and food waste. They are 10-15 years away from being commercially viable.

Moreover, banning biofuels will not solve climate change. However problematic biofuels are, they are a potential solution to the environmental troubles caused by other, unsustainable energy sources such as oil.

4. Certification schemes. These measures aim to decide upon and implement standards to minimise nefarious effects of biofuel production. Three prominent schemes of this nature are already in existence:

- The Roundtable on Sustainable Soy (RSS)
- The Roundtable on Sustainable Palm Oil (RSPO)
- The Better Sugar Cane Initiative (BSI)

All of these schemes are at the early stages of their development, still setting standards and such. They do, however, include many stakeholders, such as civil society groups, as well as many MNEs active in the biofuels industry. For example, Cadbury Schweppes and HSBC Indonesia are part of the RSPO. Archer Daniels Midland, Cargill and Unilever are members of the RSS.

A survey of the objectives of the three schemes shows that they are all primarily concerned with sustainability, with no mention of food price inflation. It is understandable that certification in the environmental sphere is much simpler than it is with the issue of food price rises. This is because ethical demands on biofuels related to price inflation come from the very fact that biofuels *are being* produced and have less to do with *how* they are produced. It would also be hard to certify individual MNEs – as mentioned before, the size of the biofuels industry is what is causing the problem. Thus a certification scheme is inappropriate for assessing the institutional impact biofuel production is having on food prices.

5. Cutting the subsidies. This will reduce biofuel production by making it less profitable, as unfair market distortions (subsidies) will have been eliminated. Thus more crops will be available for consumption, and food prices will decrease.

6. Rural investment. It is crucial to build-up agricultural industries in developing countries to increase global output and improve the lot of farmers there. The law of diminishing returns has not yet taken effect in parts of the developing world, so there remain opportunities to improve yields significantly by investing in infrastructure, technologies, irrigation systems and fertilisers. If developed countries were to also lower their agricultural subsidies, import tariffs and remove other red tape, developing countries would also find it easier to compete in world agricultural markets. Unfortunately, this is a far-off goal, particularly given the stagnation of the Doha Development Round of trade talks.

In sum, cutting subsidies for biofuels and investing in the rural sector in developing countries seem most conducive to alleviating the food crisis. The elimination of subsidies is a middle-of-the-road approach – while it would free up more agrifuel crops for consumption and reduce pressure on prices, it would not in any way constrain MNEs in their search for profits. Rural investment is a long-term strategy that aims to aid the

economic development and food security of developing countries. Price ceilings and food aid may be used as transitory measures help overcome the worst of the crisis. Certification schemes are only appropriate for the environmental dimension of CSR linked to biofuels. The moratorium option, however, seems unsuitable altogether, for reasons explained earlier. Such a combination of remedies is by no means perfect, but should help address the malfunction of the global food system over the long term. It should be remembered that the results will take time to appear, for in a sector such as agriculture, production patterns cannot be altered instantaneously – this takes time.

Conclusion

This paper has explored the connection between biofuels and the global food crisis. It contended that it is in fact possible to establish a notion of CSR that links these two together, particularly as biofuel production is one of the only causes underpinning the crisis which can be readily influenced. Such a notion of CSR could best be categorised under criteria 40. Human Rights Policy under the Covalence Ethical Quote system.

However, this notion is disputable because a) biofuels' responsibility for the food price inflation is tied to the rise in production in the industry as a whole and cannot be easily pinned on any particular MNE; and b) the problem arises from the very act of producing biofuels itself (albeit in great quantities). The obvious solution to this, demanding MNEs to stop production – that is, to abandon all considerations of profitability and shareholder satisfaction in the name of CSR and stakeholder satisfaction – is drastic, impracticable and probably unfair.

The paper went on to highlight the role of the government in encouraging an increase in biofuel production, which in a sense relieves the MNEs of much of their culpability, for it is only natural for companies to respond to economic incentive. Cutting out market-distorting government subsidies that push MNEs to step up biofuel output was the principal solution to the food crisis proposed. This middle-of-the-road solution that aims to decrease, but not to end biofuel production takes into consideration the ethical dilemmas evoked earlier in this paper, particularly that which asks us to balance competing objectives: environmental protection and fundamental human needs. Ethical pluralism prevails.

Von Braun, Joachim. IFPRI Policy Brief: Rising Food Prices What Should Be Done?, *International Food Policy Research Institute*, April 2008. Accessed from <http://www.ifpri.org/pubs/bp/bp001.asp> on 25 April 2008.)

Covalence SA 1, avenue Industrielle, CH-1227 Carouge Geneva Switzerland
Tel: +41 (0)22 800 08 55 ; Fax: +41 (0)22 800 08 56
US Rep Office, 20 Riverside Street, Apt. 25, Watertown MA 02472, USA, tel +(1) 617 429 4758
info@covalence.ch ; www.covalence.ch ; www.ethicalquote.com