

---

## The Unthinkable in Pursuit of the Eatable

RAJ PATEL

**ABSTRACT** *Raj Patel argues that in the demand for well-paid rural employment creation, movements around the world are presenting new policies that challenge and are prevented by the current constitution of international power. He warns that unless the constitution is changed, many of us will lose not only ways of thinking but also ways of eating, and some of us will lose our very lives.*

**KEYWORDS** *food crisis; climate change; women farmers; hegemony; constitutional change*

Thoughtcrime does not entail death: thoughtcrime is death (Orwell, 1984).

### Introduction

The soaring price of food has stimulated a surge of interest in food and agrarian policy. Much of this interest is a panicked search for answers, for reasons why the situation should seem to have deteriorated so far and so fast, and for policies that might mitigate the crisis. And crisis does seem to be the right word. Jacques Diouf, Director-General of the Food and Agriculture Organization, reports that food prices have risen by 45 percent in the nine months leading up to April 2008 (FAO, 2008, <http://www.fao.org/newsroom/en/news/2008/1000823/index.html>). In a single day, the price of rice rose by 30 percent (Blas and Ten Kate, 2008). The price of food has doubled over the past eight years (De Schutter, 2008, <http://www2.ohchr.org/english/issues/food/docs/SRRTFnotefoodcrisis.pdf>) and is set to increase significantly, with oilseeds up 60 percent and vegetable oils up over 80 percent in nominal terms over the next decade (OECD and FAO, 2008). The ability of the world's poor to afford food has, of course, seen no such increase, prompting the very real fear that the number of food-insecure people will breach the one billion level in 2008 (the latest figures, from 2006, when the food situation was 'normal', put the number of food-insecure at 854 million).

The spectacular food price inflation is a both symptom of a longer-term malaise, and an augury of worse to come. To see past and future trends, it is worth teasing apart the explanations offered for the current food crisis by leaders and opinion makers. The increase in prices has spawned the usual businesses of punditry, prophecy of doom and peddling of snake oil. But crises like these are moments in which hegemony is advanced (Gramsci and Buttigieg, 1992; Klein, 2007). Hegemony necessarily has an intellectual component, and this crisis has provided an opportunity for the advancement of certain interpretations and, therefore, solutions. Every diagnosis is, after all, simultaneously

an explanation of causes and a concomitant prognosis for the future. The furthering of neo-liberal hegemony has involved the revivification of certain explanations, and the smothering of others, in an attempt to make some solutions thinkable and others not. It is a straightforwardly Orwellian process, and one that seems to be gaining ground.

One way that hegemonic explanations work is through the naturalizing of causes. Many pundits (including your author – (Patel, 2008, Guardian.co.uk, 15 April)) have stooped to cliché in describing the current crisis as a ‘perfect storm’. The language is, however, profoundly unsatisfactory: it suggests that the crisis has about it the air of something natural and unpreventable. In fact, the causes for today’s tempest have been manufactured over decades by some very deliberate, cruel and unnatural acts. The presentation of these histories as immutable factors in a perfect storm makes it all the harder to think about doing things differently.

## Agrofuels

Perhaps the easiest place to start is the policy in which it takes the least effort to imagine change: agrofuels. The recent leaking of a World Bank report in which up to 75 percent of the increase in the price of food might be attributed to agrofuels (Mitchell, 2008) has hobbled the case that agrofuels are benign. President Bush’s assurances earlier this year, that less than 4 percent of the price increases were attributable to agrofuels policy, have been rubbished even by his political allies – Robert Zoellick of the World Bank estimates that the agrofuels component in the current food crisis is ‘around 25 percent’. This lends credence to the independently calculated IFPRI figure of a contribution of 30 percent to net food price increases (Rosegrant, 2008).

Indeed, with the current barrage of criticism against them, it is hard to remember a time when agrofuels seemed a sensible policy. Yet the policy once seemed not only reasonable but also desirable – otherwise it would never have advanced as far as it has. When first floated in the United States, the possibility of turning plant matter into fuel treated two very separate policy anxieties. First,

such fuels would reduce the amount of CO<sub>2</sub> emitted by burning fossil fuels. Second, being renewable, they would provide ‘energy independence’ for countries that wanted to wean themselves away from oil but not from the internal combustion engine.

Both hopes have been dashed. It has been and continues to be proven that agrofuels produce a carbon debt in their production (Fargione *et al.*, 2008). Second, policymakers have confused renewability with sustainability. Certainly agrofuels can be coaxed out of the ground again and again – they are renewable. But they cannot be sustained – for it takes more energy to grow and process them than they release (Holt-Giménez and Kenfield, 2008).

Agrofuels’ third failure lies in their economic consequences. The effect of agrofuels, particularly when it was announced in the United States that they would be the recipient of government largesse, was to stimulate a frenzy among agribusiness processors. Farmers, too, got in on the action, switching production of other crops to corn, and diverting corn production from food to fuel. The effect was to bump up the price of other grains, and to create a speculative bubble in corn, both the yellow varieties grown in the US and the white varieties in Mexico. The price of both increased, putting out of reach the daily staple for the majority of working Mexicans – the tortilla. In February 2007, Mexico City hosted the first tortilla riots in decades.

In the face of this evidence, it becomes easier to imagine a shift away from agrofuels, especially in Europe, where policymakers seem to be making a speedy retreat from previously aggressive positions on their adoption. But in the United States, it is an election year, and every presidential candidate has endorsed the policy because it will bring votes from the key swing-states in the Midwest. This is what will pass for an energy manifesto in a year of high fuel and food prices.

## Fossil fuels

This leads into the second reason offered for the current food crisis. While it is possible to imagine the links between the food crisis and agrofuels

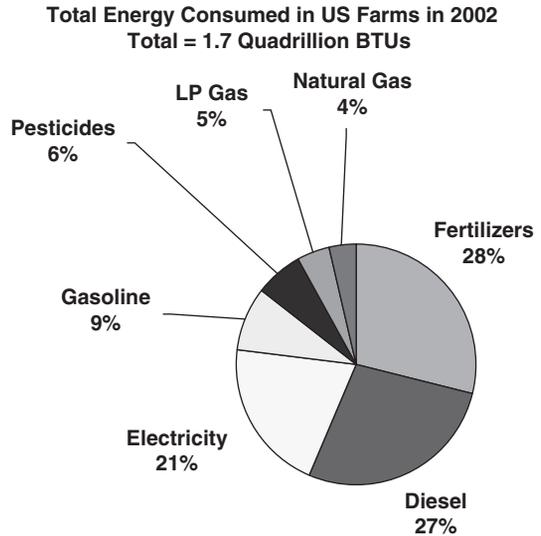
## Development 51(4): Upfront

being severed, this cannot be said for the explanation of the high price of food through the high price of oil. It is a seductive explanation – the current outbreak of food riots, most recently in Bangladesh, have often also been protests over high fuel prices as well as protests about the lack of food and democracy (Holt-Giménez and Peabody, 2008, <http://www.foodfirst.org/en/node/2120>). Ultimately, though, the oil–food link is not one that pops into our minds because we’ve been reading the placards waved by food protestors around the world – there’s very little reporting of food riots that pays much attention to what it is that protesters are actually saying.

Rather, explaining the food crisis in terms of fuel is made easy because of all the talk of 100-mile diets and 3,000-mile salads (Nestle, 2002; Smith and MacKinnon, 2007). In other words, the pathway for the price rise is popularly assumed to lie in transport costs. It is an explanation that readily thinks itself for us, spawning some exuberance among those who feel the magic bullet is through the individual act of eating locally. To give some idea of the purchase of this thinking on the US imagination, consider that ‘locavore’ was the 2007 Word of the Year in the Oxford American Dictionary. But while transport costs have certainly been increasing (Oakley and Wright, 2008), they are far from the only use of energy in food production.

As Figure 1 suggests, transport costs reflect less than a third of the production costs in industrial US agriculture. The manufacture of fertilizer, for instance, is hugely energy-intensive (Shapin, 2006, retrieved on 1 October 2008 from <http://www.lrb.co.uk/128/no2/shapoI.html>; Cox, 2008), with most of that energy coming from natural gas. The USDA’s price index for nitrogen fertilizers was 118 in 2000 but reached 204 by 2006 (Wiggins and Levy, 2008). The Department projects that over the next decade, cereals will cost 15 percent more per ton to produce (USDA, 2008). When the price of oil hits \$146/barrel, the cost of food is concomitantly kicked up.

Input costs are not the only route through which the price of oil creates hunger. Our entire economy, indeed, is hostage to oil, and when its price goes up, recession often follows. With reces-



**Figure 1:** Total energy consumed in US farms in 2002. Source: (Miranowski, 2004)

sion comes lower income, particularly for the working class, and therefore more difficulty putting food on the table. The gap between household income and food prices is, ultimately, at the root of the current crisis. Yet poverty is, also, not a thinkable cause of the food crisis.

The greatest measure of success of the oil explanation in shoring up a particular agrarian hegemony lies in its ability to prevent a deeper enquiry into why our agriculture requires so much fossil fuel. To explain the food price rise as the result of an oil price rise is to forestall the question – how did agriculture become so dependent on hydrocarbons? What becomes naturalized through the explanation is precisely the artifice and politics through which the price of oil affects the price of food.

One of the most significant transmission vectors for the oil price into the food system is the increasingly widespread application of inorganic chemicals in industrial farming. The Green Revolution, and the cocktail of high-yielding varieties of crops, irrigation and the inorganic fertilizer that it brought to many developing countries, was the means through which this kind of unsustainable agriculture was established in the Global South. There was nothing inevitable or natural about its establishment. The genesis of the Green

Revolution was a profoundly political affair, motivated by a desire to boost production at any cost to prevent communist insurrection in key developing countries. Simultaneously, the Green Revolution was a technology designed to obviate the need for social changes that might have produced similar increases in yield – measures such as land reform for instance (Courville *et al.*, 2006). The alchemy of the Green Revolution lay in transforming farm output while keeping land distributions and quasi-feudal social relations largely intact (Perkins, 1997).

The consequences of this kind of agriculture are all too clear. The United Nations reports that growers in Punjab, the epicentre of the Green Revolution in India, 'are facing ruin and a crisis of existence' (UNDP India, 2004). Their land is subject to salination, reduced fertility and groundwater depletion. To combat these, farmers borrow money – often at extortionate interest rates from local moneylenders – to maintain land productivity. When those investments do not pan out, they borrow more. Eventually, some farmers despair: Punjab has one of the highest rates of farmer suicide in the country.

Yet the grip of fossil-fuel-intensive agriculture is so powerful that many experts think that Green Revolution technology – and its updated form, genetically modified agriculture is the only way to feed the planet. Despite their being politically boosted at the recent G8 and High Level FAO Summits in early 2008, these notions have been set back with the publication of a report by the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD, 2008). Initiated by the World Bank, the group involved representatives from the Food and Agricultural Organization, the United Nations Development Programme, the UN Environment Programme, the World Health Organization and UNESCO, together with NGOs, the private sector and governments. The stage was set for them to find that the world needed more industrial agriculture or genetically modified crops. But in their conclusions, they damned GM crops with such faint praise that the industry representatives stormed out of the assessment (Vidal, 2008).

It was a blow to the industry, but a vindication of the view that agriculture requires more than expertise in knowing what to spray when. Instead, the assessment suggested that the future of agricultural technology lies in a rich and complex appreciation for how ecosystems function. This kind of understanding uses inputs very sparingly, with a substantially reduced carbon footprint, higher yield and a more sustainable future, contributing less to climate change shocks, and being more resilient to certain kinds of crop failure. It is, in short, possible to imagine that the price of food could be unhitched from the price of oil. But such imagining is tantamount to thoughtcrime in the new agricultural economy.

### Meat and diet

The third explanation for the food price increase involves meat consumption. This was an argument advanced by President Bush, who observed that 'worldwide, there is increasing demand. There turns out to be prosperity in the developing world, which is good. So, for example, just as an interesting thought for you, there are 350 million people in India who are classified as middle class. Their middle class is larger than our entire population. And when you start getting wealth, you start demanding better nutrition and better food, and so demand is high, and that causes the price to go up' (Express News Service, 2008).

Yet the US government's own figures point the other way, suggesting that China has been a net exporter of meats since 2001, albeit subsidized to some extent by the running down of local grain stores, and an increased import of soybeans. And while India's chicken consumption has gone from 0.2 million tonnes to 2.3 million today, beef consumption is more or less the same as it was in 1990 (Ray, 2008, retrieved on 1 October 2008 from <http://www.agpolicy.org/weekcol/409.html>). Yet, unusually, there is something to Bush's analysis. By demanding meat, 760 million tonnes of cereals will be diverted to feed animals rather than people – enough to cover the world's food shortage 14 times over (Monbiot, 2008). This issue is threaded into a broader set of shifts known as the 'nutrition transition',<sup>1</sup> in which citizens in developing

## Development 51(4): Upfront

countries move away from a diet rich in locally grown fruit and vegetables toward more processed foods and meat. This transition is fuelled by economic growth, and just as they expect to drive cars in the way that Europe and North America do, today's burgeoning middle class expects to eat in a similar fashion. After the revolution, we might imagine that food and consumption will not carry with them flags of class, marking some foods to be inferior to others on grounds of affordability. Until then, we are faced with a problem – the desirability of the diet in the Global North.

That desirability proceeds not from its nutritional merit – indeed, the United States is facing a decline in the life expectancy of its citizens – but because such copious sums are spent promoting it (Fontaine *et al.*, 2003; Ezzati *et al.*, 2008). The ratio of advertising dollars promoting healthy food as opposed to junk food is 1:500 (Patel, 2007). It is perhaps for this reason that the McDonald's Golden Arches are now more recognized than the Christian cross. This desirability is not only exacting a toll from the United States. It is making itself felt in developing countries – India is, for instance, the country with the largest number of people with type-II diabetes.

But this desirability is itself a political and social construct. Indeed, we have been manufactured to desire the most asinine tastes – a cocktail of salts, fats and sugars that is designed to fool our bodies into thinking that it is nutritious. What we lose in being duped is the possibility of genuine pleasure and sensuousness in consumption and this, too, is a variety of thoughtcrime. In *The Fire Next Time*, James Baldwin summarizes this feeling with characteristic eloquence:

To be sensual, I think, is to respect and rejoice in the force of life, of life itself, and to be present in all that one does, from the effort of loving to the breaking of bread. It will be a great day for America, incidentally, when we begin to eat bread again, instead of the blasphemous and tasteless foam rubber that we have substituted for it. And I am not being frivolous now, either. Something very sinister happens to the people of a country when they begin to distrust their own reactions as deeply as they do here, and become as joyless as they have become (Baldwin, 1963).

446 The nutrition transition does not have to be a transition towards a diet that maims us all. But it,

again, will take both cultural and economic work to bring about an equitable shift to food that, to use some old-fashioned language, reconnects us to our species being.

### Climate change

The fourth reason we are given for the high prices of food is that there have been poor harvests. This is true – harvests have been lousy in Australia and the Philippines because of inclement weather. Some suggest that these are the first climate change-related food shortages. While it is not possible to associate any given weather event (or non-event) with climate change, it can safely be said that climatologists expect to see more. These events are compounded by other factors, such as a kind of wheat fungus that is starting to work its way through the grain baskets of central Asia. Together, these events mean that there is just less food around. In the reporting, these twin factors are the ones most directly ascribed as acts of god.

Yet even these factors are mutable. Climate change may yet be reversible, but only with some serious changes in the way food is produced and consumed. Again, moving away from fossil fuel dependence in agriculture has to be a good first step, as does a reduction of livestock use. Agriculture and livestock farming in particular are responsible for more CO<sub>2</sub> emissions than transportation. The kind of farming systems that shrink this carbon footprint are also the ones that might be more robust in the face of disease. The spread of wheat rust in Asia has much to do with the monocultures of wheat production, and the lack of any serious genetic diversity such that some wheat might be able to survive the predations of the rot. More robust farming systems move away from monoculture toward a diverse system of intercropping, building soil fertility and ecosystems that work with, rather than are titled against, natural processes. Again, this is the direction in which the IAASTD has encouraged agriculture in order to create a sustainable food system.

### Speculation and profiteering

The fifth reason that prices have soared lies in profiteering. With the previous four factors

at work, there has been considerable uncertainty over the future prices of food. In conditions of risk, the market is prepared to pay for certainty. In conditions where the market is prepared to pay for certainty, there is money to be made both in insurance against disaster and in speculation that disaster will happen. At its most native level, this means that rich individuals have started to hoard food, keeping it back from the market in the (correct) estimation that its price will increase. But while that food is gaining value behind closed doors, food is priced beyond the means of the hungry. This is what is also happening at a far larger scale in the Chicago Board of Trade and other commodity markets, where traders and funds buy up options on future production, in the hope that others will share their enthusiasm, bidding up valuable options yet further.

Speculation lies at the legal end of practices that are widespread among corporations in times of inflation, where they have the means, opportunity and motive to raise prices beyond an inflationary increase, to raise profits. Such behaviour requires collusion, and even governments happy to let markets reign find it difficult to allow this sort of abuse to continue. At the time of writing, at least three criminal investigations were underway into corporations operating cartels in the supply of food and milk, in Spain, the UK and South Africa. The US has not launched any similar investigations – this is reflected in the falling rates of corporate fraud prosecution over the past two decades.

It is not terribly hard to see how some of this might change. The laws are already on the books – law makers merely lack the will to implement them. Aggressive and political defence of the food system, and the prosecution of profiteers, is clearly necessary. But it is also necessary to imagine how the more systematic, and legal, speculation on food prices might be tamed. The idea of a Tobin Tax has been mooted for financial markets, and a similar small tax on speculative investment in food could also be imagined (Haq *et al.*, 1996). And certainly, taxing at high rates the millions in bonuses brought home by these traders is also a step in the right direction.

## A deeper crisis

The price rises are, in short, manageable and mutable. The bigger problem is that the means to tame the price rises have been surrendered, and the political will to tackle underlying causes has been captured. The current crisis for neo-liberalism lies in the fact that millions of people are going hungry, and this casts a pall over the development project and process (McMichael, 2000). But the crisis of legitimacy derives from deeper failures of thinking about the food system. The most 'unthinkable' element in the current crisis is around the fulcrum of gender. Women and girls are disproportionately affected by the current food crisis, representing 60 percent of those affected by hunger, yet responsible for producing the majority of food consumed in developing countries (Hansen-Kuhn, 2007). Yet not only is gendered poverty not being addressed, women are being actively squeezed out of the debate. In a telling review, the ETC Group compared the incidence of keywords in the food summit declarations of 1996, 2002 and 2008. 'Women' and 'women farmers' appear once in 1996, four times in 2002 and not at all in 2008. Compare this to the appearance of corporate keywords, which has increased over the same periods from eleven to 16–20 respectively (ETC Group, 2008).

Even the more modest tasks of thinking about grain marketing boards that once provided a buffer between high prices and the poorest members of a population, or the domestic food security policies that provided enough for most countries to eat, or the income support and government spending programmes that offered ways for people, particularly women, to access education – all of these have been quietly euthanized. Today, roughly 70 percent of developing countries are net food importers. The grain stores have been auctioned off to pay the national debt. Entitlement programmes for the poor have been decimated. It should come as no surprise that so many have taken to their streets, demanding both food and a government that will listen to them.

The demands from the hungry, and from poor food producers, deserve an audience not merely on the simple grounds of democracy (Hallward, 447

## Development 51(4): Upfront

2004; Badiou, 2005), but because the ideas actively broaden public debate in ways that have *already* been proven to work. Landless and low-income farmers, for example, are very keen on land reform. Not the 'willing-buyer–willing-seller' market-led model that has been the preferred option of the policy establishment, and which has resulted in less than 5 percent of land being transferred from whites to blacks since the end of apartheid, but a progressive, state-led and comprehensive agrarian reform (Borras, 2007).

In their demands for income transfers, investment in sustainable agricultural science, a change in urban architecture to mean that cities are cities for all and well-paid rural employment creation, movements around the world are presenting, articulately, a palette of policies that are actively prevented by the current constitution of international power. Unless that constitution is changed, it is certain that many of us will lose not only ways of thinking but also ways of eating, and some of us will lose our very lives.

### Notes

- 1 Though a great deal of literature on the subject assumes that famine was a permanent condition in developing countries, out of which they have only recently emerged for the first time, blinking in the light of newfound wealth. For a corrective, and thoroughly convincing, argument that developing country citizens were cast into the night of hunger by international capitalism in food, see Davis (2001).

### References

- Badiou, Alain (2005) *Metapolitics*. Jason Barker (trans.), London: Verso.
- Baldwin, James (1963) *The Fire Next Time*, New York: Vintage.
- Blas, Javier and Daniel Ten Kate (2008) 'Fears of Unrest Rise Across Asia as Rice Price Surges 30% in a Day', *Financial Times*, 28 March.
- Borras Jr., Saturnino M. (2007) 'The Underlying Assumptions, Theory, and Practice of Neoliberal Land Policies', in Peter Rosset, Raj Patel and Michael Courville (eds) *Promised Land: Competing visions of agrarian reform*, Oakland, CA: Food First Books.
- Courville, Michael, Raj Patel and Peter Rosset (2006) *Promised Land: Competing visions of agrarian reform*, Oakland, CA: Food First Books.
- Cox, Stan (2008) *Sick Planet: Corporate food and medicine*, London: Pluto Press.
- Davis, Mike (2001) *Late Victorian Holocausts: El Niño famines and the making of the third world*, London, New York: Verso.
- De Schutter, Olivier (2008) *Background Note: Analysis of the world food crisis by the U.N. Special Rapporteur on the right to food*, New York and Geneva, May 2 (cited 2 May 2008). Available online.
- ETC Group (2008) 'Ciao FAO: Another 'Failure-as-Usual' food summit', *ETC Group 'Translator'* 5(1).
- Express News Service (2008) 'Bush Says Indian Middle-class Fuels Food Prices, Parties Hit Back', *The Indian Express*, Sunday, 4 May.
- Ezzati, Majid, Ari B. Friedman, Sandeep C. Kulkarni and Christopher J.L. Murray (2008) 'The Reversal of Fortunes: Trends in county mortality and cross-county mortality disparities in the United States', *PLoS Medicine* 5(4): e66.
- FAO, Food and Agricultural Organization of the United Nations (2008) *Urgent Measures Required to Reduce Impact of High Food Prices on the Poor*. FAO, 9 April (cited 20 April 2008). Available online.
- Fargione, Joseph, Jason Hill, David Tilman, Stephen Polasky and Peter Hawthorne (2008) 'Land Clearing and the Biofuel Carbon Debt', *Science* 319: 1235–8.
- Fontaine, Kevin R., David T. Redden, Chenxi Wang, Andrew O. Westfall and David B. Allison (2003) 'Years of Life Lost Due to Obesity', *JAMA* 289(2): 187–93.
- Gramsci, Antonio and Joseph A. Buttigieg (1992) *Prison Notebooks, European Perspectives*, New York: Columbia University Press.
- Hallward, Peter (2004) *Think Again: Alain Badiou and the future of philosophy*, London: Continuum.
- Hansen-Kuhn, Karen (2007) 'Women and Food Crises: How US food aid policies can better support their struggles', A Discussion Paper. Washington, DC: ActionAid USA.
- Haq, Mahbub ul, Inge Kaul and Isabelle Grunberg (1996) *The Tobin Tax: Coping with financial volatility*, New York: Oxford University Press.
- Holt-Giménez, Eric and Isabella Kenfield (2008) *When Renewable Isn't Sustainable: Agrofuels and the inconvenient truth behind the 2007 U.S. energy independence and security act*, Oakland, CA: Institute for Food and Development Policy.

- Holt-Giménez, Eric and Loren Peabody (2008) *From Food Rebellions to Food Sovereignty: Urgent call to fix a broken food system*, Food First, 16 May (cited 16 May 2008). Available online.
- IAASTD, International Assessment of Agricultural Knowledge, Science and Technology for Development (2008) 'Executive Summary of the Synthesis Report', Johannesburg: IAASTD.
- Klein, Naomi (2007) *The Shock Doctrine: The rise of disaster capitalism*, first edition, New York: Metropolitan Books/Henry Holt.
- McMichael, Philip (2000) 'World-Systems Analysis, Globalization, and Incorporated Comparison', *Journal of World Systems Research* VI(3): 668–90.
- Miranowski, John (2004) 'Agriculture as a Consumer of Energy. Paper read at Agriculture as a Producer and Consumer of Energy', The conference was sponsored by Farm Foundation and USDA's Office of Energy Policy and New Uses, 24 June.
- Mitchell, Donald (2008) 'A Note on Rising Food Prices – Draft document', *The Guardian*, 10 July.
- Monbiot, George (2008) 'Credit Crunch? The Real Crisis is Global Hunger. And if You Care, Eat Less Meat', *The Guardian*, Tuesday, 15 April.
- Nestle, Marion (2002) *Food Politics: How the food industry influences nutrition and health*, Berkeley, CA: University of California Press.
- Oakley, David and Robert Wright (2008) 'Soaring Shipping Costs Fuel Inflation', *Financial Times*, 8 June.
- OECD, Organisation for Economic Co-operation and Development and Food and Agricultural Organization of the United Nations FAO (2008) *OECD-FAO Agricultural Outlook 2008–2017*, Paris: OECD.
- Orwell, George (1984) *Nineteen Eighty-Four*, Oxford: Clarendon.
- Patel, Raj (2007) *Stuffed and Starved: Markets, power and the hidden battle for the world food system*, London: Portobello Books.
- Patel, Raj (2008) 'A Man Made Famine', *Comment is Free*. Available online.
- Perkins, John H. (1997) *Geopolitics and the Green Revolution: Wheat, genes and the cold war*, Oxford: Oxford University Press.
- Ray, Daryll E. (2008) 'USDA Top Officials versus USDA Data', *Agricultural Policy Analysis Center – Weekly column*, 30 May 2008. Available online.
- Rosegrant, Mark W. (2008) 'Biofuels and Grain Prices: Impacts and Policy Responses', *Testimony for the U.S. Senate Committee on Homeland Security and Governmental Affairs*.
- Shapin, Steven (2006) 'Tod aus Luft', *London Review of Books* 28(2). Available online.
- Smith, Alisa and James B. MacKinnon (2007) *The 100-Mile Diet: A year of local eating*, Toronto: Random House Canada.
- UNDP India, United Nations Development Programme (2004) *Human Development Report*, New Delhi: Government of Punjab.
- USDA, United States Department of Agriculture (2008) *USDA Agricultural Projections to 2017*, Washington, DC: Office of the Chief Economist, World Agricultural Outlook Board, United States Department of Agriculture.
- Vidal, John (2008) 'Change in Farming can Feed World', *The Guardian*, Wednesday, 16 April.
- Wiggins, Steve and Stephanie Levy (2008) *Rising Food Prices: A global crisis*, London: Overseas Development Institute.