

## Burning Hot

**George Monbiot, *Heat: How to Stop the Planet Burning*, Allen Lane, 277pages, hardback ISBN 978-0713999235, £17.99**

George Monbiot has for many years been both a key voice of political dissent and an espouser of practical solutions for challenging the inherent structural inequalities of national and global power. Presciently, it is with his environmental campaigning, and specifically that most omnipresent of subjects, climate change, that his latest clarion call of a book is concerned. In his own words, it is a ‘manifesto for action’.

The thrust of the argument is relatively simple: we have perhaps about 25 years to reduce our output of CO<sub>2</sub> and other greenhouse gases by 60 per cent globally. This means that through accepted ‘contraction and convergence’ criteria the advanced industrialised world’s reduction has to be of the order of 90 per cent, the United Kingdom included. This book is a national blueprint setting out how to achieve that target. He is persuaded that alternatively, with a ‘business as usual’ scenario, or weak palliatives, there is a high probability that we will reach a global tipping point, where runaway natural forces lead to incalculable effects. Monbiot is convinced that we need to stabilise at 450 parts per million (ppm) CO<sub>2</sub> (plus the other greenhouse gases) by 2030 to prevent temperatures rising above the 2°C threshold. As a comparison, Sir Nicholas Stern, in his recent Review on the Economics of Climate Change, uses a broader stabilisation range of 500 to 550ppm by 2050, and thinks that ‘stabilisation at 450ppm CO<sub>2</sub> is already almost out of reach’. Even Stern’s more leisurely containment, he admits, puts us within the possibility of a 4.5°C warming, dangerously close to the Permian extinction temperature of a 6°C rise when 95% of living organisms met their demise. Monbiot, on the other hand, is confident that meeting the target of no more than 2°C will make ‘the sort of warming that took place at the end of the Permian impossible’. (If you remain unconvinced of the immediacy of the problem, then Fred Pearce’s book *The Last Generation* is a readable introduction to the science of climate change and the debates within the climatological community.)

Monbiot’s book contains, as one would expect, a fair amount of scientific calculation of possibilities and likely scenarios, and the reader must be prepared for this. If you are looking for science with 100 per cent assured outcomes you will be disappointed, but this does not mean that there is not a large scientific consensus that global warming caused by anthropogenic industrial sources is happening. There is much scientific debate over differing climate models and the rapidity of change but a virtually total scientific consensus with regard to direction. This is in spite of the devious activities of the ‘denial industry’ to muddy the waters, succinctly exposed in chapter two of Monbiot’s book. And what a repugnant band of apostates they make: ranging from those media pump attendants of denial, Melanie Phillips and Peter Hitchens, through Internet obfuscation placed by bogus academic and ‘grassroots’ citizen organisations whose funding apparently derives

from those paragons of corporate rectitude, Exxon and Phillip Morris. New support for denial has recently surfaced in the European Parliament from recently joined East European countries, among them the Lithuanian Free Market Institute, funded by a large petrol company Mazeikiu Nafta and Phillip Morris (*www.Corpwatch* 22/02/07). The only recycling this lot go in for is of their own spurious science.

Monbiot's solution proposes combining a number of measures: carbon rationing; an adaptation of existing power generation technologies through underground carbon sequestration; a localised energy internet with home and area-based power and heating units using a mixture of renewable, hydrogen and natural gas generation techniques; the deployment of geographically appropriate renewable solar and wind energy; a massive improvement in housing energy insulation efficiency; major reductions in individualised transport systems, namely the car, and the substitution of a much improved motorway coach system; the rationalising of retail and wholesale distribution; and a sweeping reduction in mass air travel. There will be a place for the market but it will be largely confined to realistic carbon pricing, and he rejects carbon taxing for its rightly perceived regressive nature. He proposes a carbon rationing system that would give an equal carbon allowance to each citizen and could be traded to give an element of consumer choice and yet still, hopefully, reflect individual social and medical needs. This proposal, potentially still to a degree favouring the wealthy, has already been mooted in New Labour circles by David Miliband.

In contrast Monbiot rightly sees 'carbon offsetting' as at best akin to medieval indulgences, a sop to the conscience preventing the tackling of the real problem, giving no worthwhile reduction and, at worst, an unregulated arena for dubious entrepreneurs, and even capable of inflicting bad science and environmental practice on mainly Third World communities. Carbon trading through the present European Union emission scheme is, as presently constituted, a 'classic act of enclosure' with rights and subsidies dispensed to the big corporations instead of to the population as a whole. Additionally, as Monbiot rightly points out, the Kyoto and European Union emission stipulations were always well padded in favour of the industrial corporations and nations who should have scant difficulties in meeting the targets, given the added bonus of purchasing the emission deficits of the collapsed industrial base of the ex-Soviet economies. For that matter what Bush objected to about the Kyoto agreement was not the specified lax parameters on emissions themselves, but the principle of the national restriction on the United States' right to pollute and the dangers of an on-going process of negotiated 'constriction and convergence'. Monbiot is only too well aware of the dangers of applying marketplace solutions to what Stern has called 'the greatest and widest-ranging market failure ever seen'.

Literally grasping at straws, the US government in particular seems to think that a way out of its climate impasse is through bio-fuels. (This would have the added advantage of loosening the market grip of those troublesome oil-rich states.) Consequently, Brazil with its sugar cane-sourced cheap ethanol industry, based on staggering levels of human exploitation (*Guardian* 09/03/07), appears to be succumbing to Bush's deadly embrace. This conflicts with the interests of the

US farming belt, already beginning to exploit its commercially more expensive bio-fuel crops at the expense of food production, both in terms of availability and price. In fact the major difficulty with this solution is the stress it will put on global food crop production. Monbiot, for example, maintains that there are 5.7 million hectares of arable land in the United Kingdom and that the production of bio-fuels for one year just for 'cars, buses and lorries would require 25.9 million hectares'. Bio-fuels have some useful applications, but not at the expense of global food supply, gross human exploitation, and deforestation of rainforests with the consequent rainfall depletion.

Neither is the solution to be found in the tokenism of Blair's Caribbean holiday flight carbon offsets and Cameron's bicycling toy chimney windmill gestures. Nor does Monbiot accept the necessity for the hair-shirt back-to-nature approach of a biogas energy system driven by our own ordure or living in a yurt somewhere on Salisbury Plain — his are eminently practical if daunting proposals. However, when you perceive the mountain to be climbed when we have not yet managed to scramble over the foothills of ever more eminent political rhetoric, it does seem bleak. As Monbiot remarks it 'is not that people aren't hearing ... but that they don't want to know'. The most noticeable effects of global warming are often to be felt in the developing world, impacting on their poorest communities, who are usually the least responsible in terms of emissions. As with the global consequences of other manifestations of the neo-liberal world economy, even in the heartland of neo-liberalist capitalism, it is the poor, the elderly, the sick, the very young and the ethnic minorities who suffer the derelictions of the state at times of crisis, as we saw most graphically in New Orleans (2005) and the European heat wave (2003).

Hardly a day goes by without some new proclamation on the importance of halting climate change from the great and the not-so-good. Meanwhile, ever greater coats of 'greenwash' attempt to seduce us with the idea that BP, Walmart and Marks & Spencer are to save the planet. As Monbiot notes, just to get the latter supermarkets to fit doors to all their refrigerators so as not to be in a perpetual energy war with their own heating systems would appear to be too much to ask. At the same time, the New Labour Government steams ahead with airport expansion, places niggardly financial limits on grants for renewable energy initiatives, obstructs environmental legislation within the European Union, funds motorway lane expansion, gives support to nuclear power expansion, and who can now remember John Prescott's 'public transport Renaissance' that never happened? The car corporations all have their prototype 'green' cars, but ask them to restrict new mass-market cars to 120 kg/km carbon emissions and the whines of protest from BMW and Volkswagen are sufficient to force a climbdown by the European Commission.

Unlike Blair, Monbiot places nuclear power generation second from the bottom when it comes to desirable power sources, the very bottom being open-cast coal mining. He admits that the figures for nuclear power can be manipulated by both supporters and detractors to support their case, but makes a powerful case himself for its non-expansion. This he bases on the familiar arguments of waste storage,

weapons production, terrorism, the industry's historical record and an energy-based input/output analysis. Alongside the expansion of renewables, electricity generation should at least, in the relatively short term, as a 'partial solution', continue to use natural gas but with the carbon emissions sequestered in suitable geological sites. Like many environmentalists he fears a return to relatively cheap coal when the oil and gas start to run out.

Throughout the book Monbiot, where possible, has made every effort to cost his proposals and compare them against alternatives, a testament to the hard work he and his small band of researchers have put into the book. But whatever way you look at the problem, the infrastructural costs to make many of Monbiot's ideas work will be colossal. We perhaps forget that the change from wood burning to coal took perhaps 200 years of development. Add to that a further 100 years for the full infrastructural development of oil-based technology and it seems, in retrospect, a fairly leisurely pace of transformation. In contrast, we need to make the transition to renewables and possibly hydrogen in a couple decades at the most, according to Monbiot's scenario. He suggests therefore a mixture of technologies and scales of action. As well as relatively immediate solutions there are also suggestions for long-term endeavours. For example, it may be possible to develop a new long distance international electrical power grid based on DC (direct current) transmission sourced from enormous solar farms based in the Sahara. Many of his more long-term proposals in particular need changes to the national and international economic infrastructure and call for a degree of planning and coordination of gargantuan proportions. The book to some extent downplays the enormity of the changes required and does not touch on the many and significant political and economic obstacles, but in Monbiot's defence this is not the book's purpose. We do need practical plans to meet the technical problems but also, perhaps more importantly, practical conceptions for focusing and building a mass movement across the radical political spectrum, capable of providing the necessary leverage.

Appropriately each chapter of the book is introduced with a pithy quote from Christopher Marlowe's play *Doctor Faustus* to set the scene for our 'live now pay later' pact with fossil fuels. But moderate as they seem, Monbiot's proposals would alter the whole emphasis and practice of the retail trade, with consumerist choices inevitably becoming much narrower. The compensations wedding workers in the industrial nations to market capitalism would become increasingly tenuous: the car, the cheap holiday flights, even the 'retail therapy' visits to Tesco and M&S, should you be so inclined, would be brought into question by the necessary redefinition of transport and material distribution. Implicitly, reasonable as Monbiot's schema appears, ultimately it demands a new relationship between peoples, nations and between Man and Nature. It is now far too late to continue with capitalism's Hobbesian, business-as-usual war on nature, whatever the many difficulties of forging an alternative.

History is not packed with occasions where definitive action is taken without the actuality of extreme need and, whilst capitalism has the ability to plan, it is usually

to assist relatively short-term accumulation, not generalised social need. Monbiot's plan (whilst not meeting market orthodoxy head on), appears an eminently reasonable working solution, but it still poses structural planning dilemmas for capitalism. These are usually only solved during periods of acute 'total' warfare. The present problem is that the enemy is still over the horizon and doesn't yet appear at the gates, or the right gates, to get the troops in line. Furthermore, the battalions have to be internationally raised and coordinated, and will have to forgo the usual rapine. And as if to cap it all, the generalissimo volunteering for command appears to be (according to the *Guardian* at least) Tony Blair – God help us! *Heat* does not address the question of political practicalities but let's hope George is right and that 'people's power will save the planet'.

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