

CLIVE HAMILTON

BUILDING ON KYOTO

GEORGE MONBIOT HAS attained an iconic status among English-speaking progressives. His ability to see through the sophistry of governments, corporations and their various apologists has provided us with a range of new political insights. In recent years he has devoted many of his columns in the *Guardian* to the defining problem of our era, climate change, exposing the cant of politicians and dirty dealing of the fossil fuel lobby, deploying both forensic research skills and elegant prose. Monbiot's book on climate change was therefore keenly anticipated by his readers. Like all of those who truly face up to the implications of climate change science, Monbiot is exasperated at the timidity of those in government who claim to take global warming seriously. Even environmentalists, he suggests, refuse to confront the enormity of the task.

Heat is Monbiot's search to find the answer to climate change.¹ Over several chapters he considers the problem areas—energy wastage, electricity generation, land transport, aviation—and argues that Britain can cut its greenhouse gas emissions by 90 per cent. The argument is presented as a kind of personal intellectual odyssey, describing where he went, what he read, how his thinking evolved, which ingrained assumptions he had to discard and the emotional turmoil of getting to the end. The book might be read as a detective story in which the author and protagonist must solve this crucial puzzle. By the end of it, Monbiot believes he has found a 'workable solution' for slashing Britain's emissions, and that it is 'generally applicable' to other countries.

There is a deeper message in *Heat*, one that is anathema to fossil fuel lobbyists—not to mention neoclassical economists and hand-wringing politicians. Despite the comforting arguments of some environmentalists—and Nicholas Stern, in his 2006 report for the UK

Treasury—that we can tackle climate change without major disruption, in truth cutting the world’s greenhouse gases by the necessary amounts is almost intractable. We can only avoid catastrophe—including millions dying in the Third World—if we radically change the way we in the rich countries go about our daily lives. Above all, we must abandon our comfortable belief in progress. There could be no greater challenge to growth fetishism and our deepest held assumptions about progress, nor any graver threat to the power of the ‘wealth creators’.

Are we in the rich countries of the world capable of making such a psychological transition? The glib answer is that we simply must. Yet such an environmental imperative must conquer a more powerful force. Our profligate consumption is no longer aimed at meeting material needs but at reproducing ourselves psychologically. In modern consumer capitalism, consumption activity is the primary means by which we create an identity and sustain a fragile sense of self. If, in order to solve climate change, we are asked to change the way we consume, then we are being asked to change who we are—to experience a sort of death. So desperately do we cling to our manufactured selves that we fear relinquishing them more than we fear the consequences of climate change. This helps to explain the chasm between the complacency of ordinary people and the rising panic among climate scientists and clear-eyed environmentalists. Monbiot understands this, and some of the most compelling passages of *Heat* explore the psychological obstacles to saving the planet. The campaign to maintain a liveable climate is unique:

it is a campaign not for abundance but for austerity. It is a campaign not for more freedom but for less. Strangest of all, it is a campaign not just against other people, but also against ourselves.²

Climate change wars

Having begun by characterizing humankind’s relationship with fossil fuels as a Faustian pact, Monbiot then turns to the climate change denial industry. The political campaign to persuade governments to take action to prevent global warming has been conducted mainly by environmental organizations, based on the work of scientists around the world. But by the time global warming was beginning to be recognized as the gravest threat

¹ George Monbiot, *Heat: How to stop the planet burning*, Allen Lane: London 2006.

² Monbiot, *Heat*, p. 215.

to humanity, environmentalism had given rise to its opposite, a virulently hostile coalition of industrialists, right-wing commentators and conservative politicians. From the outset the evidence for global warming and the climate crisis has been resisted by the tide of anti-environmentalism, itself powered by the same energies that drove anti-communism before the fall of the Berlin Wall. Most recently the argument has been put by Margaret Thatcher's favourite chancellor, Nigel Lawson. Attacking Nicholas Stern, Lawson claimed that environmentalism 'is profoundly hostile to capitalism and the market economy'.³ This is the nub of the matter. The logic of the sceptics—in the right-wing think tanks, the conservative media and the White House—is as follows: environmentalists are the enemies of capitalism; what they advocate must be contrary to the interests of capitalism; climate scientists who provide the evidence that supports their views are also enemies of capitalism; accepting the evidence of global warming means giving in to anti-capitalists; therefore, we must not accept the science of climate change and will seek out any shred of evidence that appears to contradict it.

This is more than an ideological conviction; for some it borders on a religious one. When asked in 2001 if President Bush would be urging Americans to curb their energy use, his spokesman Ari Fleischer replied: 'That's a big "no"'. He went on to declare that wasting energy is akin to godliness:

The President believes that it's an American way of life, and that it should be the goal of policy-makers to protect [it]. The American way of life is a blessed one . . . The President also believes that the American people's use of energy is a reflection of the strength of our economy, of the way of life that the American people have come to enjoy.⁴

In recent years wealthy Texans have discovered the joys of sitting in front of a log fire. As it is usually hot in Texas they must turn their air conditioners up so they can enjoy the cosy warmth from their hearths. Using energy simultaneously to heat a house and cool it only seems perverse if you reject George Bush's conception of the American way of life.

The global warming deniers have been conducting a sustained war on climate science and the Kyoto Protocol since the mid-1990s. Monbiot

³ Nigel Lawson, 'The Economics and Politics of Climate Change', Centre for Policy Studies, 1 November 2006, p. 16.

⁴ White House press briefing, 7 May 2001.

reveals that some of the organizations and personnel that pursued a covert strategy of disinformation in defence of the tobacco industry shifted across into promoting climate change denial on behalf of the fossil fuel lobby. They adopted the same tactics of sowing doubt in the public mind, characterizing global warming as an unfounded panic in an increasingly risk-averse world. The pivotal role of ExxonMobil in funding and promoting anti-green organizations and climate deniers was detailed in January of this year in a report by the Union of Concerned Scientists. In September 2006, Britain's Royal Society took the highly unusual step of writing to ExxonMobil, asking that it desist from funding organizations that 'have misrepresented the science of climate change by outright denial of the evidence'. The report mentioned the Competitive Enterprise Institute—a Washington-based conservative think tank 'dedicated to advancing the principles of free enterprise and limited government'—and the London-based International Policy Network. ExxonMobil's response was to sound wounded.

Among the important organizations funded by ExxonMobil has been the website Tech Central Station, which describes itself as a site 'where free markets meet technology'. It is probably the world's most effective climate-sceptic website. Until recently it was published by the DCI Group, a top Republican lobbying and public relations firm with close ties to the Bush Administration. DCI advertises its ability to provide 'third party support' to clients and has been linked to several industry-funded coalitions that pose as grassroots organizations. 'Corporations seldom win alone', the group's website says. 'Whatever the issue, whatever the target—elected officials, regulators or public opinion—you need reliable third party allies to advocate your cause. We can help you recruit credible coalition partners and engage them for maximum impact. It's what we do best.' The company's skills in astroturfing were acquired by its managing partners—Tom Synhorst, Doug Goodyear and Tim Hyde—during nearly a decade of work for R. J. Reynolds Tobacco Company in the 1990s.

In addition to front groups and industry-funded websites, a number of right-wing think tanks have played a crucial role in preventing action on global warming. As Monbiot recounts, perhaps the foremost has been the Competitive Enterprise Institute. Along with the many statements it has made denying the seriousness of global warming, the CEI has argued that climate change would create a 'milder, greener, more prosperous

world' and that 'Kyoto was a power grab based on deception and fear'. In addition to ExxonMobil, corporate funders include the American Petroleum Institute, Cigna Corporation, Dow Chemical, EBCO Corp, General Motors and IBM. The CEI is also intimately involved in the Cooler Heads Coalition, which argues that the risks of global warming are speculative. Pre-empting the release of Al Gore's film *An Inconvenient Truth* in 2006, the CEI made television advertisements arguing against climate change. Notoriously, one of the ads ended with the words: 'Carbon dioxide, they call it pollution, we call it life.' These groups have spawned and emboldened a network of individuals who have little scientific training, but who are utterly convinced that the 'global warming theory' is a giant fraud being committed by the scientific establishment.

Aware that fanatical anti-environmentalism does not appeal to the general public, the anti-Kyoto forces have linked their arguments to currents that run deep in consumer capitalism. Societies dominated by growth fetishism provide fertile ground for any claim that a proposed intervention, such as a carbon tax, would undermine the right to keep consuming at ever-higher levels. Monbiot understands the game, and that is why his strategy of getting activists onto the streets is the only one that can work: but he argues that the activists must be re-educated. In one of his strongest chapters, he makes a compelling case that if we are to decarbonize the world economy we shall have to give up air travel. This appears shocking, the sort of claim that is so unacceptable that we immediately look for psychological defences that allow us to reject it.

Ambitious targets

In truth we could give up all but the occasional flight, and after a period of adaptation easily become accustomed to travelling less or travelling differently, just as we did before planes were turned into buses with wings in the 1970s. The principal obstacle, and it is a formidable one, is a well-established psychological fact: while we do not much yearn for what we cannot imagine, we become powerfully attached to it once we have it. In one of the more fearless and far-reaching observations in *Heat*, Monbiot concludes that solving climate change 'demands that we do something few people in the rich world have done for many years: recognize that progress now depends upon the exercise of fewer opportunities'.⁵

⁵ Monbiot, *Heat*, p. 188.

Although Monbiot identifies the psychological and political barriers as the principal obstacles to deep cuts in greenhouse gas emissions, the largest part of his book is devoted to finding a technologically feasible solution. Climate change is a subject that has drawn in thousands of experts from across a range of disciplines—most of the physical sciences, energy systems, economics, finance, ethics, politics, international relations and, increasingly, psychology and the sociology of knowledge. It is difficult for anyone to have expertise in more than one or two of these disciplines: one must decide not what to believe, but whom to believe. Yet Monbiot casts humility aside.

Monbiot has decided that his task in *Heat* is to achieve emission reductions that might prevent the globe warming by more than two degrees: a more ambitious target than most. That this target requires stabilizing greenhouse gas emissions at the equivalent of 440ppm of carbon dioxide is suggested to Monbiot in an unpublished paper, sent by a man who—he concedes—‘is not a professional climate scientist but [who] appears to have done his homework’, with supporting evidence from the Potsdam Institute for Climate Impact.⁶ Proposing an egalitarian division of carbon emissions per person by 2030—rather than a longer convergence period during which the developing world might ‘catch up’—Monbiot then calculates his aggressive target for the rich world: a 90 per cent reduction by the same date, far beyond the cuts proposed by anyone else.

Seemingly determined to be more audacious than any other environmentalist, Monbiot ends up endorsing the global coal industry’s golden bullet, the technology that it prays will allow it to survive and prosper in a carbon-constrained world. Carbon capture and storage—also known as geosequestration—involves building coal-fired power stations with the ability to separate out the carbon dioxide from the flue gases, then concentrating and pumping the carbon dioxide through pipelines to long-term storage in saline aquifers deep beneath the earth. As a solution to global warming this is a political ruse first and foremost—even its supporters concede that it will not make a significant difference to global emissions for 15–20 years, and it is likely to be more expensive than existing alternatives. Monbiot should know better than to give it his blessing; after all, both the Bush Administration and the Howard government in Australia have put most of their policy eggs in that basket.

⁶ Monbiot, *Heat*, pp. 15–6.

The argument of *Heat* is marred by a number of misunderstandings, especially in Monbiot's consideration of the economics of his proposed solution to the climate change problem. After arguing against reducing carbon emissions purely by way of taxes—which would allow the rich to live as they choose, or necessitate unwieldy rebate systems—he proposes a rationing system for international allocations of carbon emissions. Yet his system for allocating carbon budgets within a national economy is a kind of emissions trading system—it would 'create a new currency' that could be 'traded with other people'—that would again allow rich lifestyles to continue, largely unimpeded. He argues that the European Emissions Scheme is flawed because it allows polluters to avoid cutting their carbon emissions, by paying others to cut theirs; but that is the point of any trading system, including his own. He argues that if the required cuts are deep enough 'every sector must cut its emissions by roughly that amount'. This must be wrong, but it serves his purpose of wanting to show how every sector can achieve 90 per cent cuts.⁷ Monbiot does not seem to grasp that a carbon tax and an emissions trading system are very similar, except that the first fixes the price of emissions and allows the market to determine the quantity emitted, while the latter sets the quantity of emissions and allows the market to set the price. The system he proposes is largely embodied in the Kyoto Protocol, and the European Emissions Trading Scheme is part of that framework.

Monbiot's criticisms of the Kyoto Protocol could play into the hands of the fossil fuel lobby. The need to accommodate contentious and poorly understood economic and equity effects in a global environmental agreement made the Kyoto negotiations the most complex and ambitious international treaty process ever attempted. It involved 180-odd states with enormously disparate interests and multitudinous allegiances—even before account is taken of the spoiling role of the powerful fossil fuel lobby. Consider the components of the system. The Protocol is built around mandatory emission limits for rich countries, with an unstated expectation that developing countries will adopt limits once the West has shown the way. It incorporates an emissions trading system that allows states finding it difficult to meet mandatory caps to buy surplus emission permits from other countries that can cut their emissions by more than they are required to. This sets up powerful incentives, as well as slashing the cost of the system and allowing deeper cuts. It includes a Clean Development Mechanism

⁷ Monbiot, *Heat*, p. 59.

that enables companies in rich countries to invest in emission reduction projects in poor countries, thus giving the latter a stake in the system and much-needed financial flows. Of course there are some loopholes in the Protocol—Russian ‘hot air’ and the incorporation of ‘forest sinks’ being the biggest—but they were the price of reaching an agreement.⁸ Given the almost impossible task, the Kyoto Protocol was a profoundly important achievement. It requires no structural changes other than the closing of these loopholes and agreement on a global compliance mechanism that imposes sanctions on recalcitrant states.

Monbiot’s comments on the failure of the Protocol to incorporate emissions from aviation are also ill judged. So fraught and finely balanced were the negotiations at Kyoto that it was inevitable that some issues would be left off the table to be dealt with in future rounds. Yet Monbiot ridicules the UK Department of Transport for stating that the lack of international agreement means that aviation emissions are not included in the inventory of greenhouse gases. ‘But a child could see that you simply divide the emissions [from international flights] by half’, he writes. I have no brief to defend a sclerotic bureaucracy, but only an imperfect understanding of the problem could lead to such an answer. There are too many ‘what ifs’ to mention, but one will do. What if it is a flight from a poor country that has no target under the Protocol? The Department of Transport acknowledges that the aviation industry should pay for the environmental damage caused by planes. This in itself must send chills through the airline executives, but for Monbiot it is not enough, and he resorts to the cheap shot: ‘Should a steward be sacrificed every time someone in Ethiopia dies of hunger?’⁹

Clash of ideologies

A month after *Heat* appeared, publication of the Stern review caused waves around the world. When Stern was commissioned by UK Chancellor Gordon Brown to consider the economic implications of climate change and measures to reduce emissions, his unofficial remit

⁸ Under the Kyoto Protocol Russia is required to ‘limit’ its emissions to 1990 levels over 2008–12. The collapse of Soviet industry in the early 1990s, however, means that Russia’s emissions are not expected to reach 1990 levels until well after 2012. The difference is known as ‘hot air’. The effectiveness of forests as carbon sinks, meanwhile, is strongly contested.

⁹ Monbiot, *Heat*, p. 175.

was to persuade America and Australia, to join global efforts and ratify the Kyoto Protocol. Stern set out to refute the principal argument used by the governments of those countries to justify their reluctance: that cutting emissions would be economically harmful. Stern and his team concluded that the costs of doing nothing—that is, the damage to economic activity of climate change—are likely to exceed the costs of cutting emissions by an order of magnitude. In this way he seemed to turn the argument of the recalcitrants on its head. Even ignoring the environmental costs, it makes financial sense to induce the transition to a low-carbon world. Although they are ostensibly on the same side, there is a sharp divergence between the arguments of Monbiot and Stern. While Monbiot argues that the necessary reductions in global emissions will require a wholesale change in lifestyle, Stern argues that dealing with climate change will mean a reduction in global GDP of a mere 1 per cent. While Monbiot declares that saving the planet challenges the very notion of progress, Stern concludes that ‘tackling climate change is the pro-growth strategy for the longer term’.¹⁰

One reason for this divergence lies in differing targets. While Monbiot’s goal of 90 per cent cuts by 2030 would limit atmospheric carbon dioxide concentrations to 440 parts per million, Stern considers this to be impossible and sets 550 parts per million as his target. This will require emission cuts of 25 per cent by 2050, including reductions of 60–75 per cent in the power sector. (Stern says that in the longer term, reductions of at least 80 per cent will be needed.) His goal is thus much less ambitious, although still hard to attain. Monbiot feels the need to describe in great detail exactly how and where the cuts should occur. Stern is confident that once a powerful signal is sent to the market, then the market will find a way to carry out the restructuring of the energy economy. There are reasons to believe that Stern is correct. In fifty years’ time the world will be dramatically different: if a strong signal can be sent now, there are grounds for optimism. While we currently have the technologies to reduce the world’s emissions sharply over the next decade or two, by 2050 the market—suitably guided—will present a set of possibilities we cannot foresee. After all, fifty years ago we did not have electronics, television, computers, nuclear power, widespread use of plastics or mass-produced white goods, let alone biotechnology, genetic engineering, nanotechnology or space tourism. Beyond their disagreement over

¹⁰ Nicholas Stern, *The Economics of Climate Change*, Cambridge 2006, p. ii.

emission reduction goals, the difference between Stern and Monbiot is one of political strategy. Stern wants to persuade reluctant politicians that deep cuts will not be too painful, while Monbiot wants to frighten us into action. Will either strategy work?

It should have been apparent to Stern that his strategy would fail. Although often convened under the banner of economic argumentation, the climate change debate is a clash of ideologies. Stern, trained as an economist and therefore taught that there are no ideologies except wrong ones, failed to understand this. Gordon Brown's willingness to embrace Stern's rhetoric but reluctance to act on his recommendations can only be explained by his reflex privileging of the health of the economy over the health of the environment. (To his credit, Stern resigned.)

Stern himself remained captive to a way of understanding the world peculiar to his profession. After all, for some years economic modelling has shown that the cost of meeting Kyoto targets would be vanishingly small. Even estimates commissioned by the Bush Administration typically conclude that cutting emissions as mandated in the Kyoto Protocol would see the gross national product of the United States reduced by only 1 per cent by 2012. A virtually identical figure was reached by the Howard government in Australia. Bearing in mind these results are five years old, what does this figure mean? If nothing is done and the economy grows at 3 per cent a year over the period, GNP in the US will be about 40 per cent higher by 2012. If policies to reduce emissions as specified in the Kyoto Protocol were implemented, national income would be 39 per cent higher by 2012. Put another way: instead of GNP reaching a level 40 per cent higher by, say, 1 June 2012, if the US ratified Kyoto it would not reach that level until 1 October 2012.

In the face of these minute effects on economic growth, the US and Australia have nevertheless refused to play a part in reducing global emissions. Confronted with a high probability of environmental catastrophe on Earth, the richest people on the planet are unwilling to wait an extra four months to increase their incomes by 40 per cent. Understood this way, hostility to Kyoto appears to be a form of madness. In truth, the results of economic models, even the ones produced by Stern that invert the argument for not acting, are puny in the face of the real reason for rejecting Kyoto: an ideological conviction that nothing must come in the way of growth and corporate interests.

Heat is an odd mixture of polemic and analysis—‘green and expert’, one might say—and does not shy away from the moral core of the climate change debate. But in prosecuting the argument, Monbiot at times shares a predisposition with the denialists and fossil fuel lobbyists: an over-emphasis on the failure of individuals to do more to reduce their own contribution to global warming. Monbiot writes that ‘well-meaning people are as capable of destroying the biosphere as the executives of Exxon’.¹¹ This is a nice line, but who would you rather have in charge of solving global climate change: Anita Roddick or the CEO of Exxon? Roddick may be well-meaning but misguided, whereas the CEO of Exxon is misguided and malicious. Poor understanding can be overcome, but malice cannot.

A collective response?

At times Monbiot is drawn into the most dangerous trap for environmentalists, the recourse to holier-than-thou moralizing. This approach has a peculiar symmetry with orthodox economics: both place far too much responsibility on the shoulders of individuals. Appealing to the idea of ‘revealed preference’, free-market economists argue that if individuals do not make environmentally benign decisions in the marketplace then they do not really care about the environment, no matter how much concern they might express in opinion surveys or over the dinner table. Monbiot too seems to judge us by our decisions in the marketplace. However, it is quite consistent for a person who does not opt to buy green electricity to vote for a party that promises to compel us all to buy it. Insisting on a collective response to a collective problem is far more politically practical and environmentally responsible than a politics of guilt.

Yet Monbiot is a more sophisticated political thinker than many other environmentalists writing on climate change. Among the latter, Tim Flannery abandons hope for political action and concludes in *The Weather Makers* that the only way to solve the climate crisis is for each of us to install solar panels on our roofs.¹² Monbiot does not fall for such political naivety, understanding the frailty of our environmental convictions in the face of the temptations of consumption. ‘Manmade global warming’, he writes, ‘cannot be restrained unless we persuade

¹¹ Monbiot, *Heat*, p. 172.

¹² Tim Flannery, *The Weather Makers*, London and New York 2006.

the government to force us to change the way we live'.¹³ He understands that we are both citizens and consumers, and that consumers will never solve the climate change problem however much politicians might hope otherwise. While Flannery ends his book with a list of 'eleven things you can do' as a consumer, Monbiot urges his readers to join political movements that pressure governments and the big polluters. In his last chapter he writes incisively about why people have not been massing in the streets, or even engaging in guerrilla protests, as they once did. Among other factors, he blames that over-hyped tool of post-modern politics, the internet—which, he writes, 'allows us to believe that we can change the world without leaving our chairs'.¹⁴ By giving the illusion of individual power to desk-bound revolutionaries, the internet has in fact only hastened the erosion of real democratic participation.

However, Monbiot's style and range sometimes risk leaving the reader more disoriented than dazzled. In just four pages, in a chapter that costs his scheme for solving global warming, Monbiot leaps from commentary on fuel price fluctuations to energy demand under different prices, from the opportunity cost of spending on greenhouse abatement to the paucity of aid spending in the UK, from the extent of government subsidies to industry around the world to Bush's Energy Policy Act, from the apparent corruption of EU coal subsidies to the cost of the Iraq War and, finally, peak oil. *Heat* contains two superb chapters, one exposing the sinister tactics of the climate change denial industry and its links to the tobacco lobby, and one on the end of aviation: it is these two that were excerpted at the time of publication. Whilst these may provide enough reason to buy the book, readers of some of the remaining chapters may be disappointed. A work by Monbiot devoted to the politics of climate change would have been a more useful intervention than his opinion on how to achieve 90 per cent cuts in every sector. It is not the only time Monbiot has written a book that claims to solve the world's most intractable problems single-handedly: *The Age of Consent* (2003), described as 'a manifesto for a new world order', set out a detailed blueprint for a new international democratic system, built on principles of justice. In the battle between utopians and realists, my vote always goes to the former; yet not all utopian visions are equal, and Monbiot crossed the line that separates the inspirational from the fanciful.

¹³ Monbiot, *Heat*, p. xv.

¹⁴ Monbiot, *Heat*, p. 214.

Monbiot's role tells us something about the state of modern progressive politics after three decades of retreat. Following the decline of the organized left, there remain only a handful of lone intellectuals who are skilled at articulating the failings of a world dominated by neo-liberalism and neo-conservatism. They deserve our gratitude for their commitment, and for resisting attempts by publishers to turn them into celebrities. But they lack a broadly shared vision or intellectual milieu that could discipline the evolution of their thinking. As a columnist George Monbiot is a devastatingly effective critic, but we will need to search elsewhere for the ideas to lead us out of the climate change wilderness.