

# THE ECONOMICS AND POLITICS OF CLIMATE CHANGE

# AN APPEAL TO REASON

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THIS IS A HIGHLY COMPLEX SUBJECT, involving as it does science, economics and politics in almost equal measure. The Centre for Policy Studies has kindly agreed to publish a greatly extended version of this lecture as a pamphlet, in which I will be able to do greater justice to that complexity and to quote the sources of a number of the statements I propose to make this evening. It will also enable me to deal at slightly greater length with the scaremongering Stern Report, published earlier this week. But the essence of it is what I have to say tonight.

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But first, a very brief comment on Stern. If scaremongering seems a trifle harsh, I should point out that, as a good civil servant, he was simply doing his masters' bidding. As Mr Blair's guru, Lord Giddens (the inventor of the so-called third way), laid down in this context in a speech last year, "In order to manage risk, you must scare people".

In fact, the voluminous Stern Report adds disappointingly little to what was already the conventional wisdom – apart from a battery of essentially spurious statistics based on theoretical models and conjectural worst cases. This is clearly no basis for policy decisions which could have the most profound adverse effect on people's lives, and at a cost which Stern almost certainly underestimates. It is, in a very real sense, the story of the Iraq war, writ large.

So let us get back to basics, and seek the answers to three questions, of increasing complexity.

First, is global warming occurring? Second, if so, why? And third, what should be done about it?

As to the first question, there is of course little doubt that the twentieth century ended warmer than it began. According to the Hadley Centre for Climate Prediction and Research, an offshoot of Britain's Met Office:



"Although there is considerable year-to-year variability in annual-mean global temperature, an upward trend can be clearly seen; firstly over the period from about 1920-1940, with little change or a small cooling from 1940-1975, followed by a sustained rise over the last three decades since then."

This last part is a trifle disingenuous, since what the graph actually shows is that the sustained rise took place entirely during the last quarter of the last century. Moreover, according to the Hadley Centre's data, there has so far been no further global warming since 1998. Whether the seven-year hiatus since then marks a change of trend or merely an unexplained and unpredicted blip in a continuing upward trend, time will tell.

Apart from the trend, there is of course the matter of the absolute numbers. The Hadley Centre graph shows that, for the first phase, from 1920 to 1940, the increase was 0.4 degrees centigrade. From 1940 to 1975 there was a cooling of about 0.2 degrees. (It was during this phase that alarmist articles by Professor James Lovelock and a number of other scientists appeared, warning of the onset of a new ice age.) Finally, since 1975 there has been a further warning of about 0.5 degrees, making a total increase of some 0.7 degrees over the 20<sup>th</sup> century as a whole (from 1900 to 1920 there was no change).

Why, then, has this modest – if somewhat intermittent – degree of global warming seems to have occurred. Why has this happened, and what does it portend for the future?

The only honest answer is that we don't know.

The conventional wisdom is that the principal reason why it has happened is the greatly increased amount of carbon dioxide in the atmosphere as a result of the rapid worldwide growth of carbon-based energy consumption.

Now, there is no doubt that atmospheric concentrations of carbon dioxide increased greatly during the 20<sup>th</sup> century – by some 30 per cent – and most scientists believe this increase to be largely man-made. And carbon dioxide is one of a number of so-called greenhouse gases whose combined effect in the earth's atmosphere is to keep the planet warmer than it would otherwise be.



Far and away the most important of these gases is water vapour, both in its gaseous form and suspended in clouds. Rather a long way back, carbon dioxide is the second most important greenhouse gas – and neither, incidentally, is a form of pollution.

It is the published view of the Met Office that is it likely that more than half the warming of recent decades (say 0.3 degrees centigrade out of the overall 0.5 degrees increase between 1975 and 2000) is attributable to man-made sources of greenhouse gases – principally, although by no means exclusively, carbon dioxide.

But this is highly uncertain, and reputable climate scientists differ sharply over the subject. It is simply not true to say that the science is settled; and the recent attempt of the Royal Society, of all bodies, to prevent the funding of climate scientists who do not share its alarmist view of the matter is truly shocking.

The uncertainty derives from a number of sources. For one thing, the science of clouds, which is clearly critical, is one of the least well understood aspects of climate science.

Another uncertainty concerns the extent to which urbanisation (not least in the vicinity of climate stations) has contributed to the observed warming. There is no dispute that urbanisation raises near-surface temperatures: this has long been observed from satellite infra-red imagery. The uncertainty is over how much of the estimated 20<sup>th</sup> century warming this accounts for.

Yet another uncertainty derives from the fact that, while the growth in manmade carbon dioxide emissions, and thus carbon dioxide concentrations in the atmosphere, continued relentlessly during the 20<sup>th</sup> century, the global mean surface temperature, as I have already remarked, increased in fits and starts, for which there us no adequate explanation.

But then – and this is the other great source of uncertainty – the earth's climate has always been subject to natural variation, wholly unrelated to man's activities. Climate scientists differ about the causes of this, although most agree that variations in solar radiation play a key part.



It is well established, for example, from historical accounts, that a thousand years ago, well before the onset of industrialisation, there was – at least in Europe – what has become known as the mediaeval warm period, when temperatures were probably at least as high as, if not higher than, they are today.

Going back even further, during the Roman empire, it may have been even warmer. There is archaeological evidence that in Roman Britain, vineyards existed on a commercial scale at least as far north as Northamptonshire.

More recently, during the 17<sup>th</sup> and early 18<sup>th</sup> centuries, there was what has become known as the little ice age, when the Thames was regularly frozen over in winter, and substantial ice fairs held on the frozen river – immortalised in colourful prints produced at the time – became a popular attraction.

Historical treeline studies, showing how far up mountains trees are able to grow at different times, which is clearly correlated with climate change, confirm that these variations occurred outside Europe as well.

A rather different account of the past was given by the so-called "hockey-stick" chart of global temperatures over the past millennium, which purported to show that the earth's temperature was constant until the industrialisation of the 20<sup>th</sup> century. Reproduced in its 2001 Report by the supposedly authoritative Intergovernmental Panel on Climate Change, set up under the auspices of the United Nations to advise governments on what is clearly a global issue, the chart featured prominently in (among other publications) the present Government's 2003 energy white paper. It has now been comprehensively discredited.

But it is not only over time that the earth's climate displays considerable natural variability. Change also varies geographically. For example, there are parts of the world where glaciers are retreating, and others where glaciers are advancing. The fringes of the Greenland ice shelf appear to be melting, while at the centre of the shelf the ice is thickening. Curiously enough, there are places where sea levels are perceptibly rising, while elsewhere they are static or even falling – suggesting that local factors still dominate any global warming effects on sea levels.



Again, extreme weather events, such as major storms in the Gulf of Mexico, have come and gone, at irregular intervals, for as long as records exist. Katrina, which caused so much damage to New Orleans, is regularly trotted out as a consequence of man-made climate change; yet the region's worst recorded hurricane was that which devastated Galveston in 1900. Following Katrina, the world's authorities on tropical storms set up an international panel, which included the relevant expert from the Met Office here in the UK. The panel reported, earlier this year, as follows:

"The main conclusion we came to was that none of these high-impact tropical cyclones could be specifically attributed to global warming."

This may not be all that surprising, given how little global warming has so far occurred; but I do not recall it featuring in Mr Gore's film.

But this diversity makes it all too easy for the Al Gores of this world to select local phenomena which best illustrate their predetermined alarmist global narrative. We need to stick firmly to the central point: what has been the rise in global mean temperatures over the past hundred years, why we believe this has occurred, how much temperatures are likely to rise over the next hundred years or so, and what the consequences are likely to be.

As is already clear, the only honest answer is that we do not know. Nevertheless, it is not unreasonable to try and guess; and this is essentially what the IPCC has devoted itself to doing. Its conclusion is that, by the end of this century, on a business-as-usual basis, global mean temperature might have risen by anything between 1 degree and 6 degrees centigrade. This is based on a combination of the immensely complex computer models of the relationship between carbon dioxide concentrations and global temperature, developed by the Hadley Centre and others, coupled with a range of different projections of the likely growth of carbon dioxide emissions.

This last part is not, of course, a scientific matter at all, but consists of economic forecasting. That is to say, it depends on the rate of world economic growth over the next hundred years (which in turn depends to a considerable extent on the



projected world population), the energy-intensiveness of that growth, and the carbon-intensiveness of the energy used.

The upper part of the IPCC's range of scenarios is distinctly unconvincing, depending as it does either on an implausibly high rate of population growth or, in particular, an unprecedented growth in energy intensiveness, which in fact has been steadily declining over the past 50 years.

Equally implausible are its estimates of the costs of any warming that may occur. For example, it makes great play of the damage to agriculture and food production from climate change. Quite apart from the fact there are many parts of the world where agriculture and food production would actually benefit from a warmer climate, the IPCC studies are vitiated by the fact that they assume that farmers would carry on much as before, growing the same crops in precisely the same way – the so-called 'dumb farmer' hypothesis.

In reality, of course, farmers would adapt, switching as the need arose to strains or crops better suited to warmer climates, to improved methods of irrigation, and in many cases by cultivating areas which had hitherto been too cold to be economic.

It is important to bear in mind that, whatever climate alarmists like to make out, what we are confronted with, even on the Hadley Centre/IPCC hypothesis, is the probability of very gradual change over a large number of years. And this is something to which it is eminently practicable to adapt.

This points to the first and most important part of the answer to the question of what we should do about the threat of global warming: adapt to it.

There are at least three reasons why adaptation is far and away the most costeffective approach.

The first is that many of the feared harmful consequences of climate change, such as coastal flooding in low-lying areas, are not new problems, but simply the exacerbation of existing ones; so that addressing these will bring benefits even if there is no further global warming at all.



The second reason is that, unlike curbing carbon dioxide emissions, this approach will bring benefits whatever the cause of the warming, whether manmade or natural.

And the third reason why adaptation – most of which, incidentally, will happen naturally, that is to say it will be market-driven, without much need for government intervention – is the most cost-effective approach is that all serious studies show that, not surprisingly, there are benefits as well as costs from global warming. Adaptation enables us to pocket the benefits while diminishing the costs.

The main argument advanced against relying principally on adaptation is that it is all right for the rich countries of the world, but not for the poor, which is unacceptable.

As Professor Mendelsohn of Yale, author of a number of studies of the impact of climate change, has written,

"The net damages to mid to high latitude countries [such as the UK] will be very small if not beneficial this coming century. The impacts to poor low latitude countries will be harmful across the board...Climate change will hurt the poorest people in the world most."

This is no doubt true, although it is frequently exaggerated. But it does mean that those of us in the richer countries of the world have a clear moral obligation to do something about it – not least because, if the man-made warming thesis is correct, it is we who caused the problem.

According to the IPCC, the greatest single threat posed by global warming is coastal flooding as sea levels rise. Sea levels have, in fact, been rising very gradually throughout the past hundred years, and even the last IPCC Report found little sign of any acceleration. Nevertheless, Sir Nicholas Stern, charged by the Government to look into the economics of climate change is particularly concerned about this, especially the alleged melting of the Greenland ice sheet. He has written that:



"The net effect of these changes is a release of 20 billion tonnes of water to the oceans each year, contributing around 0.05 millimetres a year to sea-level rise."

This would imply an additional sea-level rise of less than a quarter of an inch per century, something it ought not to be too difficult to live with.

But the major source of projected sea-level rise is from ocean warming expanding the volume of water. As a result, some of those low-lying areas already subject to serious flooding could find things getting significantly worse, and there is a clear case for government money to be spent on improving sea defences in these areas. The Dutch, after all, have been doing this very effectively for the past 500 years. The governments of the richer countries, like the United States with its Gulf coast exposure, can be left to do it for themselves; but in the case of the poorer countries, such as Bangladesh, there is a powerful argument for international assistance.

Another problem for the poorer and hotter countries of the world, according to the IPCC, is an increase in vector-borne diseases, notably malaria. This is more controversial. Most experts believe that temperature has relatively little bearing on the spread of the disease, pointing out that it was endemic throughout Europe during the little ice age.

Be that as it may, some two million children in the developing world die every year from malaria as it is; and the means of combating, if not eradicating, the scourge are well established. There is, again, a clear case for international assistance to achieve this.

Of course assistance in either the building of effective sea defences or in the eradication of malaria will cost money. But that cost is only a very small fraction of what it would cost to attempt, by substantially curbing carbon dioxide emissions, to change the climate.

The argument that we need to cut back substantially on carbon dioxide emissions in order to help the world's poor is bizarre in the extreme. To the extent that their problems are climatic, these problems are not new ones, even if



they may be exacerbated if current projections are correct. If, twenty years ago, when as Chancellor I was launching the first concerted poor-country debt forgiveness initiative, subsequently known as the Toronto terms, anyone had argued that the best way to help the developing countries was to make the world a colder place, I would probably have politely suggested that they see their doctor. It makes no more sense today than it would have done then.

Indeed, it is worse than that. As Frances Cairncross, the Chairman of the Economic and Social Research Council, pointed out in her thoughtful and honest Presidential address on climate change to the British Association's annual conference in September, the cost of effectively curbing carbon dioxide emissions "will definitely be enormous". Precisely how large it is impossible to say – even by Sir Nicholas Stern. Last year's report on the economics of climate change by the House of Lords Economic Affairs Committee quoted estimates ranging from \$80 billion a year to \$1,100 billion a year. It would depend greatly, among other things, on how it is achieved and how soon – the earlier it is done the greater the cost. Of critical importance is how great the increase in the price of carbon would need to be to stifle the demand for carbon sufficiently; and that we cannot know unless and until we do it.

But it is clear that the cost will be large enough, among other consequences, to diminish significantly the export markets on which the future prosperity of the developing countries at least in part depends. So far from helping the world's poor, it is more likely to harm them.

Nevertheless, curbing carbon dioxide emissions, along the lines of the Kyoto accord, under which the industrialised countries of the world agreed to somewhat arbitrarily assigned limits to their CO2 emissions by 2012, remains the conventional answer to the challenge of global warming.

It is hard to imagine a more absurd response.

Even its strongest advocates admit that, even if fully implemented (which it is now clear it will not be, and there is no enforcement mechanism), the existing Kyoto agreement, which came into force last year, would do virtually nothing to reduce future rates of global warming. Its importance, in their eyes, is as the first step



towards further such agreements of a considerably more restrictive nature. But this is wholly unrealistic, and fundamentally flawed for a number of reasons.

In the first place, the United States, the largest source of carbon dioxide emissions, has refused to ratify the treaty and has made clear its intention of having no part in any future such agreements.

The principal American objection is that the developing countries – including such major contributors to future carbon dioxide emissions as China, India and Brazil – are effectively outside the process and determined to remain so. Indeed, both China and India currently subsidise carbon-based energy.

The developing countries' argument is a simple one. They contend that the industrialised countries of the western world achieved their prosperity on the basis of cheap carbon-based energy; and that it is now the turn of the poor developing countries to emulate them. And they add that if there is a problem now of excessive carbon dioxide concentrations in the earth's atmosphere, it is the responsibility of those that caused it to remedy it. Nor are they unaware of the uncertainty of the science on the basis of which they are being asked to slow down their people's escape from grinding poverty.

The consequences of the exclusion of the major developing countries from the process are immense.

China alone last year embarked on a programme of building 562 large coal-fired power stations by 2012 – that is, a new coal-fired power station every five days for seven years. Putting it another way, China is adding the equivalent of Britain's entire power-generating capacity each year. Since coal-fired power stations emit roughly twice as much carbon dioxide per gigawatt of electricity as gas-fired ones, it is not surprising that it is generally accepted that within the next 20 years China will overtake the United States as the largest source of emissions. India, which like China has substantial indigenous coal reserves, is set to follow a similar path, as is Brazil.

Then there is the cost of the Kyoto approach to consider. The logic of Kyoto is to make emissions permits sufficiently scarce to raise their price to the point



where carbon-based energy is so expensive that carbon-free energy sources, and other carbon-saving measures, become fully economic. This clearly involves a very much greater rise in energy prices than anything we have yet seen. The trebling of oil prices since Kyoto was agreed in 1997 has done little to reduce carbon emissions.

There must be considerable doubt whether a rise in energy prices on the scale required would be politically sustainable. Particularly when the economic cost, in terms of slower economic growth, would be substantial.

In reality, if the Kyoto approach were to be pursued beyond 2012, which is – fortunately – unlikely, the price increase would in practice be mitigated in the global economy in which we now live. For as energy prices in Europe started to rise, with the prospect of further rises to come, energy-intensive industries and processes would progressively close down in Europe and relocate in countries like China, where relatively cheap energy was still available.

No doubt Europe could, at some cost, adjust to this, as it has to the migration of most of its textile industry to China and elsewhere. But it is difficult to see the point of it. For if carbon dioxide emissions in Europe are reduced only to see them further increased in China, there is no net reduction in global emissions at all.

The extent of ill-informed wishful thinking on this issue is hard to exaggerate. To take just one example, the government's 2003 energy White Paper proposed a 60 per cent reduction in the UK's carbon dioxide emissions by 2050, based on the notion of supplying most if not all of the country's electricity needs from renewable sources, notably that particularly trendy source, wind power.

But as experienced electrical engineers have pointed out, government estimates of the cost of wind power are grossly understated, since wind power (like most renewable sources of energy) is intermittent. In other words, the wind doesn't blow all the time. But the electricity supply does have to be on tap all the time. Given the fact that electricity cannot be economically stored on an industrial scale, this means that conventional generating capacity would have to be fully maintained to meet demand when the wind stops blowing, thus massively adding to the true cost of wind power.



There are all sorts of things we can do, from riding a bicycle to putting a windmill on our roof, that may make us feel good. But there is no escaping the two key truths. First, there is no way the growth in atmospheric carbon dioxide can be arrested without a very substantial rise in the cost of carbon, presumably via the imposition of a swingeing carbon tax, which would require, at least in the short to medium term, a radical change of lifestyle in the developed world. Are we seriously prepared to do this? (A tax would at least be preferable to the capricious and corrupt rationing system which half-heartedly exists today under Kyoto.)

And the second key truth is that, even if we were prepared to do this, it would still be useless unless the major developing nations – notably China, India and Brazil – were prepared to do the same, which they are manifestly and understandably not.

So we are driven back to the need to adapt to a warmer world, and the moral obligation of the richer countries to help the poorer countries to do so.

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It is clear that, despite the regrettable arrogance and intolerance of the Royal Society, the uncertainty surrounding the complex issue of climate change is immense, and the scope for honest differences of view considerable.

But uncertainty cuts both ways.

While it may well be the case that, on a business as usual basis, the earth is highly unlikely to get as warm as the climate alarmists tell us it will over the next hundred years, we cannot be sure: it might.

In particular, we cannot be completely sure that, at some far-off point, it might not warm sufficiently to trigger what the IPCC refers to as "large-scale singular events".

The most frequently talked about such event is that it might reach a point where it shuts down or reverses the Gulf Stream, which keeps Europe's temperatures up to 8 degrees centigrade warmer than they would otherwise be. So global warming might paradoxically make Europe seriously colder.



So far, of course, there is no sign of this. And according to many reputable oceanographers, there could never be – at least not as a consequence of global warming. In their understanding of the science, the Gulf Stream is primarily wind-driven, and thus will continue to exist regardless of the future temperature of the planet.

But inevitably we cannot be absolutely sure; and the same applies to all the other much-discussed disasters.

It is at this point that the so-called precautionary principle is invoked. Conventional cost-benefit analysis is irrelevant, it is argued. A climate catastrophe may be unlikely; but if it occurred the consequences would be so appalling that we must do whatever it takes, here and now, to prevent it.

At first sight this seems a persuasive argument. But a moment's reflection shows its shortcomings as a guide to practical policy decisions.

In the first place, while the prospect of catastrophic consequences from global warming cannot be regarded as impossible, nor can a number of other possible catastrophes.

It is perfectly possible, for example, that over the next hundred years or so, the world might enter another ice age. There is ample evidence that this has happened at fairly regular intervals over the long history of the planet, and that we are overdue for another one.

More immediately – and thus demanding much more urgent attention and priority in the expenditure of resources – there are the possible consequences of nuclear proliferation to worry about, not to mention the growth in the terrorist threat in an age when scientific and technological developments have brought the means of devastation within the reach of even modestly funded terrorist groups.

Above all, in a world of inevitably finite resources, not only can we not possibly spend large sums on guarding against any and every possible eventuality in the future; but the more we do spend on this the less there is available to deal with poverty and disease in the present.



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#### NIGEL LAWSON: THE ECONOMICS AND POLITICS OF CLIMATE CHANGE

Perhaps the most important application of the precautionary principle is to the precautionary principle itself. Otherwise we may find ourselves doing very stupid things in its name.

As a general rule, rationality suggests that we concentrate on present crises, and on future ones where the probability of disaster if we do not act appears significant – usually because the signs of its emergence are already incontrovertible. The fact that a theoretical danger would be devastating is not enough to justify substantial expenditure.

A modest degree of global warming clearly occurred during the last quarter of the 20<sup>th</sup> century, but the evidence that this will now accelerate to disastrous levels is, to say the least, unconvincing, for the reasons I have already set out.

If we are going to take out an insurance policy against the remote risk of a warming-induced climate disaster then it needs to be both affordable and effective. The conventional front-runner, a substantial enhancement of the Kyoto approach of curbing carbon dioxide emissions satisfies neither of these requirements. It is not affordable, in the sense that the people of Europe – to whom Kyoto largely applies – are not prepared to make the sacrifices in terms of the drastic change in lifestyle required, and it is ineffective, since the major nations of the developing world – quite apart from the United States – are, for good reason, not prepared to join the party.

The notion that if we in the UK are prepared to set an example, then the rest of the world will follow, is reminiscent of the old unilateralist CND argument that if we in the UK abandoned nuclear weapons, then the Soviet Union and the United States would follow suit, and just as far-fetched.

Apart from creating the conditions most favourable to technological innovation, the only practicable insurance policy, on which a great deal of serious work has been done in the United States (a potentially important 'workshop' on this is to be held in San Francisco later this month), concerns what has become known as geo-engineering: taking active action to cool the planet, in relatively short order, should the need become pressing.



The front runner here is the idea of blasting aerosols into the stratosphere, so as to impede the sun's rays. Such grand schemes obviously need to be approached with caution; but it is striking that they have gained the support of scientists of the eminence of the Nobel Prize-winner Paul Crutzen. Another possibility may be the geo-engineering of clouds, which play such a large part – far greater than carbon dioxide – in determining the earth's climate. The insurance policy is to spend government money on further research into geo-engineering, and on developing the capability (where this does not already exist) to put it into practice should the need arise.

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Essentially, I have sought to argue three key propositions.

First, the relatively new and highly complex science of climatology is an uncertain one, and neither scientists nor politicians serve either the truth or the people by pretending to know more than they do.

Second, far and away the most rational response to such climate change as, for any reason, may occur, is to adapt to it.

And third, the rich countries of the temperate world have an obligation to assist the poor countries of the tropical world to undertake whatever adaptation may be needed.

It is not difficult to understand, however, the appeal of the conventional climate change wisdom. Throughout the ages something deep in man's psyche has made him receptive to apocalyptic warnings: "the end of the world is nigh". Almost of all us are imbued with a sense of guilt and a sense of sin, and it is so much less uncomfortable to divert our attention away from our individual sins and causes of guilt, arising from how we have treated our neighbours, and to sublimate it in collective guilt and collective sin.

Throughout the ages, too, the weather has been an important part of the narrative. In primitive societies it was customary for extreme weather events to be explained as punishment from the gods for the sins of the people; and there



is no shortage of examples of this theme in the Bible, either – particularly but not exclusively in the Old Testament.

The main change is that the new priests are scientists (well rewarded with research grants for their pains) rather than clerics of the established religions, and the new religion is eco-fundamentalism. But it is a distinction without much of a difference. And the old religions have not been slow to make common cause.

Does all this matter? Up to a point, no. Unbelievers should not be dismissive of the comfort that religion can bring. If people feel better when they buy a hybrid car and see a few windmills dotted about (although perhaps not in their own back yard), then so be it. And in a democracy, if greenery is what the people want, politicians will understandably provide it, dressed in the most high-flown rhetoric they can muster.

Indeed, if people are happy to pay a carbon tax, provided it is not at too high a level, and the proceeds are used to cut income tax, that would not be a disaster, either. It would have to be a consumer-based tax, however, since in the globalised world economy industry is highly mobile, whereas individuals are much less so.

But the new religion of eco-fundamentalism does present dangers on at least three levels.

The first is that the governments of Europe, fired in many cases by anti-Americanism (never underestimate the extent to which distaste for President Bush has fuelled the anti-global warming movement), may get so carried away by their rhetoric as to impose measures which do serious harm to their economies. That is a particular danger at the present time in this country. No doubt, when the people come to suffer the results they will insist on a change of policy, or else vote the offending government out of office. But it would be better to avoid the damage in the first place.

The second, and more fundamental, danger is that the global salvationist movement is profoundly hostile to capitalism and the market economy. There are already increasing calls for green protectionism – for the imposition of trade



restrictions against those countries which fail to agree to curb their carbon dioxide emissions. Given the fact that the only way in which the world's poor will ever be able to escape from their poverty is by embracing capitalism and the global market economy, this is not good news.

But the third danger is even more profound. Today we are very conscious of the threat we face from the supreme intolerance of Islamic fundamentalism. It could not be a worse time to abandon our own traditions of reason and tolerance, and to embrace instead the irrationality and intolerance of ecofundamentalism, where reasoned questioning of its mantras is regarded as a form of blasphemy. There is no greater threat to the people of this planet than the retreat from reason we see all around us today.