

## A speech by Lord Chris Smith

# Sustainability, Climate Change, and the Challenges of Government

Henley Business School, 3 February 2010

1. Let me start with a premise. Our economy has always been inextricably linked to our environment, and our environment to our economy. From the days of agriculture, through the industrial revolution that relied on raw materials and water power, through the trading nation that we supremely became, through to the present challenges of climate change: the human impact on the natural world, our dependence upon nature's wealth, and the effect its changes have upon us, have been vital elements of our economic success, of our social organisation, and of our governance. This remains true today, and I want to explore how some of these relationships can and should develop in the future, in a moment.

2. But first let me lay to rest the myth fostered by some of the media in recent months that somehow the scientific evidence for climate change is deeply flawed, and that recent challenges to one or two points in the International Panel on Climate Change (IPCC) reports mean that we don't need to worry any more. There's no excuse, of course, for science that lacks rigour and a robust evidence base. Sloppily expressed emails at the University of East Anglia were irresponsible and very damaging. A blithe assumption that the Himalayan glaciers may melt by 2035 – when they won't – should never have been inserted in the IPCC report. But let's not allow these one or two errors to undermine the overwhelming strength of evidence that has been painstakingly accumulated, peer reviewed, tested and tested again, and that shows overwhelmingly that our emissions of greenhouse gases are having a serious impact on the earth's atmosphere, and that as a result climate change is happening and will accelerate. Climate science is not a religion. It is fallible. It will be revised as more evidence emerges. But it has very clearly identified the direction in which things are heading, the causes of those changes, and the need to take action before it is too late.

3. We should not underestimate the damage that has been done by the glee with which the sceptics have seized on the one or two scientific mistakes and used them to undermine the whole consensus about the evidence and the conclusions we need to draw from it. To think that the Guardian, yesterday, devoted half of its entire front page to an article about the precise positioning of eighteen climate monitoring stations in China. Or to read Dominic Lawson in the Independent, the same day, saying that it had now been clearly shown that climate change was a load of nonsense and we should all stop worrying about it. In a way I wish that were true. But it isn't, and the Independent should know better. What all of this stuff is doing, however, is undermining the public's recognition of the nature and extent of the problems we face. Gradually, the public here in the UK, and across much of Europe, had come to accept the reality and the urgency of climate change. There were still debates about what precisely to do to counter it, but at least the fundamental recognition was there. I think that is probably less true now than it was three months ago. And that is a tragedy. We need to take the argument back to the

sceptics, and make the powerful, convincing and necessary case for climate change much clearer to everyone.

4. The former Prime Minister Margaret Thatcher told the United Nations in 1989: “The evidence is there. The damage is being done. What do we, the international community, do about it?” She was right.

5. The evidence of change is indeed there. The glaciers of the Alps and the Himalayas are retreating. Weather patterns around the world are becoming more erratic and more extreme. The most intensive rainfall ever experienced in one location over a 24 hour period in England fell on Cumbria last November, and caused the tragic consequences of the severe flooding that we saw in Cockermouth, Keswick and Workington. We can't say for certain that these things – or indeed the intense heat recently experienced in Australia, or the droughts in Kenya – are caused by climate change. But we can see with our own eyes that the climatic, weather and temperature trends are changing, and we know that these hitherto exceptional events are likely to become more frequent over coming years.

6. Here in England and Wales, the Environment Agency works at the very point where people's lives intersect with environmental change. We help people prevent and cope with flooding, environmental degradation, water depletion, and pollution. And in our day to day work we can see small things that are happening, all around us. Juvenile damselflies and dragonflies are now being found much further north than ever before, and at higher altitudes, as they move with the warming climate. There is a rare, slim, blue-green fish called the vendace, that has disappeared from its former stronghold in Bassenthwaite Lake in the Lake District, and is having to be reintroduced in colder waters further north in Scotland. The coldwater arctic charr is disappearing from Lake Windermere. And over the past twenty years, we have been testing the temperature of river water across England; the results go up and down, of course, but the trend is very clear, and seems to indicate that there has been an average rise in water temperature in our rivers of 0.6 degrees over that period. These are small signals, but like the canary in the mine, they foretell greater danger in the future.

7. We know that if we can hold the average global air temperature increase to 2 degrees we have a chance of surviving more or less intact. But if it ends up being 4 degrees or more, the impact on population, on water resources, on sea levels, on agriculture, on weather patterns, on biodiversity, and on the quality of human life across the world, will be severe. That is why the international discussions on climate change at Copenhagen were so important. And why the outcome was so disappointing. We always knew that we wouldn't emerge from Copenhagen with a full signed-and-sealed treaty with firm commitments for specific emissions reductions from everyone around the world. But I did hope that we might emerge with rather more than we did, with at least a set of in-principle commitments and some target dates and a map charting where we were going to go from here.

8. Instead, we have the Copenhagen Accord, drawn up by the United States, China, India, Brazil and South Africa, with some aspirations and agreements, and an earnest of intent to build on this during the coming year. And build on it we must. The worst response to Copenhagen would be to throw up our hands in horror and say nothing was achieved and therefore we should give up on the search for international commitments and agreement. We need to continue the drive for an international treaty. And do so with renewed urgency. There are some useful fundamentals in the Copenhagen Accord – the aim of a 2 degree limit to temperature increase; the principle of north-south flows of aid and support in order to ensure that the developing world can grow more sustainably than those of us who have

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largely caused the problem up to now; and commitments to help combat deforestation. We should now work as hard as we can to build these up into more specific commitments over the next eleven months.

9. And we should not give up, either, on our own drive here in the UK to create a low-carbon economy and to reduce our own CO<sub>2</sub> emissions by 80% by 2050. We have a law on the statute book, after all, that requires this to be done. And we need to do it in the name of economic efficiency anyway. But also we should never underestimate the power of example. If we can demonstrate, over time, that it is possible to achieve prosperity in a low-carbon way, that environmental stewardship and quality of life go hand in hand, that it won't cripple an economy to do the right thing environmentally, then we have a much better chance that others will follow. And if we don't do this, no-one else will. Quite simply, we have to set out to demonstrate the art of the possible to the rest of the world. And then there's a chance that others will follow.

10. If we are to achieve an 80% reduction over the next forty years, we need to transform the way in which we produce power, use it, travel, live and work. Here are some of the elements of what that future might look like:

- Carbon-free energy production – which will necessarily entail a mixture of renewables (especially wind, wave, tidal, solar, ground-source and hydro power and some forms of biomass), nuclear, and carbon-captured fossil fuels.
- Far greater energy efficiency in all buildings, domestic, business and industrial – requiring a proper, coordinated national programme of energy efficiency and insulation work, to replace the patchy series of smaller initiatives we have at present.
- All cars, buses, lorries and trains running on electricity rather than petrol or diesel, preferably with high performance and rapid re-charging.
- High-speed rail links across the country, and into the rest of Europe too.
- Combined heat-and-power a standard fitting for all power stations and heat-producing industrial plants.
- Hardly any waste going to landfill, with re-use and recycling the norm, and emissions-free energy from waste for the rest.
- Work undertaken in collaboration with essential heavy industries such as steel (which currently accounts for some 6-7% of global carbon dioxide) to reduce emissions from their processes.
- Water regarded as the precious resource it is, rather than an infinitely available commodity.
- Robust emissions and environmental targets – with open reporting – for every major private and public organisation.

11. If we do all of this, we may have a chance of meeting those very ambitious targets that we have set ourselves. And we also need to have a proper national debate about what happens to the remaining 20% of allowable carbon. How do we want this to be shared between those areas of economic and human activity that can't be de-carbonised in the way that energy and road transport can? How do we assess the competing demands of air travel, agriculture, heavy industry, construction and shipping? All of these are necessary, but at present at least there are few obvious technologies available to remove emissions. Greater efficiency and further innovation will undoubtedly reduce emissions, but not entirely.

12. These elements of a low-carbon future are a tall order. They must be done. But not only that; I believe they can be done. One of the fatal tendencies of the green movement is to paint the gloomiest possible picture and then suggest that unless we all return to living off the land dressed in hair shirts we won't have a chance of survival. But actually the evidence of the last twenty years shows that it is

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perfectly possible for the world to take on major environmental challenges and succeed. If you had asked me twenty years ago what the principal environmental challenges facing the world were, the answer would probably have been the hole in the ozone layer and the problems caused by acid rain. Yet in both cases, we have made huge progress in the two decades since. We identified the science: CFCs in the case of the ozone hole, and sulphur dioxide and nitrogen oxides in the case of acid rain. We reached international agreements on what needed to be done. And we used a number of different tools – regulation, economic incentives, government investment, and business initiative – to bring about the required changes. And whilst not completely solved, in both instances we are now well on the way towards a solution.

13. The challenge thrown up by climate change is infinitely greater, of course. It will be far more difficult to tackle. But exactly the same principles – of identifying the science, getting the international agreements, and then taking the regulatory and economic and legislative measures that are needed – will apply in finding the solutions. The fact that we've done it before gives me some hope that we can, just perhaps, do it again.

14. One of the major difficulties with climate change in this respect will of course be planning (and persuading the public) in relation to things where the precise challenges are uncertain. In deciding public policy responses to issues and problems, we normally know more or less what it is we are likely to be dealing with, and when. With climate change we know with reasonable certainty the overall trend. What we don't know is the precise outcome and timing. This means we need to find a new way of developing policy and action, and finding a way of embedding adaptability into our response.

15. Nowhere is this more important than in the ways we find of helping people to cope with the consequences of climate change. And helping people to cope – “adaptation” in the jargon of the trade – is going to be necessary, whether we like it or not. The unnerving truth is that if as a world we stopped emitting all greenhouse gases tomorrow (and we know this isn't going to happen), we would still continue to experience the effects of climate change for another thirty years. So, in the face of increased flood risk, and the potential for water shortages, and the need for agriculture to take account of different weather and soil response, and the changes that may well happen to biodiversity in particular locations, we have to find ways of managing change.

16. A rather good example of this has been the work that we in the Environment Agency have been doing on the future of the Thames estuary over the next ninety years. We've been looking at the protection offered by the Thames Barrier, and the nature of the sea and river defences in the outer estuary, and measuring these against a range of possible expectations for the impact of climate change, especially in relation to sea level rise. The reality is that we can't say for certain whether the sea level will rise by half a metre, or a metre, or two or even three metres, by the end of the century. We know it will almost certainly rise, but not the exact pace and time. So public policy has to be ready for a range of different eventualities, and that is what we have laid out in our Thames Estuary 2100 report – a range of options, with the steps needed at each stage, and with the ability to take the necessary decisions at the appropriate time as we know more and the evidence of what is actually happening becomes clearer, year by year. We have tried by doing this to build in the adaptability that public bodies (and indeed the private sector too) will need to have in place as the unknowns (to paraphrase Rumsfeld) become increasingly known.

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17. The really good news, by the way, is that the Thames Barrier itself will continue to offer good protection against tidal surges from the North Sea for another sixty years or so – even with the very worst possible predictions about sea level rise during that period. I never cease to marvel at the foresight of the engineers who designed and built the Barrier, which opened twenty-five years ago. They didn't know the specifics of climate change, but they sensed something might be happening, and as a result they over-designed the Barrier in ways that make it robustly secure in a changing environment. It was a Rolls-Royce of an engineering project; and I find myself sometimes wishing that we were still able to have that approach to public projects. We don't, of course, any more. We tend to try and deliver as cheaply as possible; and perhaps we lose something in the process.

18. In reshaping our economy to repond to climate change – combatting both its causes and its consequences – globalisation is both our enemy and our friend. On the one hand, global competition makes it difficult for one part of the world to identify the true cost of carbon and other pollutants whilst others do not. The European Union's Emissions Trading Scheme is a case in point. We administer the scheme within the UK; and at the moment it has very little bite. The price of carbon is too low, the cap is too high, and there are too many free credits in the system. That will begin to change significantly when we move into phase 3 of the Scheme, in 2013. And when that happens, and carbon becomes more expensive to produce in the EU countries, and if other parts of the world haven't followed suit, will that have an adverse impact on European economic and trading performance? I suspect this danger is exaggerated. Europe is such a huge player within the global economy that there will always be a need to do business here. And in any case, look at the impact that higher wage levels have on EU performance – they are there, but they don't prevent economic activity, and indeed they arguably force companies to find new ways of innovating and finding added value by other means. I believe the same will be true of added costs for carbon.

19. Globalisation presents opportunities too, however. Global markets and global supply chains will be of enormous benefit in the spreading of best practice. Companies can have a huge influence in spreading energy efficiency or low carbon technology. They can bring together skills and expertise from different places and backgrounds that will help to solve problems much more widely. They can help use best practice in one place to illuminate what might happen elsewhere. And they can share people, technology, know-how and passion with other nations where it is in short supply.

20. Whilst globalisation offers us hope as well as pessimism, the nature of politics and government in democratic societies does – I'm afraid to admit – make tackling the problem much more difficult. Governments and political parties think in immediate time horizons – five years at the very most. Climate change demands much longer-term thinking. Politics likes to deal in certainties; climate change is by its very nature full of uncertainties. Especially when some element of "sacrifice" is being demanded in the here and now – higher energy prices, perhaps – the fact that this is happening because we're worried about things that we think are likely to happen, and in fifty years' time or more doesn't make for good or easy politics.

21. We are very fortunate here in the UK in that there is a broad consensus across all the major political parties about the reality and seriousness of climate change. When the Climate Change Bill was passing through the House of Commons there were only four MPs who voted against it – almost unprecedented for a Bill of this weight and importance. By contrast, Barack Obama has to tackle this

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issue in the US without any political consensus at all. The change in balance in the Senate in the wake of the Massachusetts election makes that situation worse. I suspect what we will see by way of response is not an abandonment of the cause by the President – that is not his habit – but rather a change in approach to secure the right result. This will involve him talking a lot about energy security and about reducing dependence on foreign oil, rather than about climate change. And it will involve his encouragement, bit by bit, of actual things on the ground. I think we will see a very large amount of activity in the US over the next few years in developing new ways of making buildings energy efficient, and of renewable energy, and of electric cars. But it probably won't be explicitly labeled "climate change". It will of course be very welcome nonetheless.

22. One of the other ways in which we can secure political and popular agreement is by adopting the "adaptability" approach I outlined earlier: having policy responses ready in the event of climate change impacts, but not actually adopting them until we know for sure that they will be necessary. This at least removes some of the uncertainty over timing and outcome from the governmental process. It isn't possible, however, in relation to all decisions or policies. And one of the key things we need to try and achieve over the next few months is to help people to get back to trusting the scientists once again. This is where the jubilation of the sceptics over emails and errors has done such a disservice: those we need to trust most in explaining to us what is going to happen if we don't act – the scientists – have been temporarily removed from the long-haul task of public persuasion. We need them back.

23. I said at the outset that the economy and environment were inextricably interlinked. And as I've pondered, through these last few minutes, on the need to tackle the causes and consequences of climate change, and on the impacts it will have, and on the need for the nature of government policy-making to change, and on the steps we need to take to be serious about combating climate change, that interlinking has been very obvious indeed. Finding our way towards a low-carbon economy is going to be a gradual, and sometimes difficult, process. But it's an essential one. Nick Stern demonstrated this most clearly in his report a few years ago on the economics of climate change. It altered the terms of the debate forever. And it showed how – whilst tackling climate change now would involve a cost – it was as nothing compared with the costs that would face us in due course if we did nothing.

24. That remains the case. And I hope – fervently – that the current crisis of economic confidence through which the world is living will perhaps help to impel us in the right direction. We had very little choice about how we went into recession. We do have choices about how we come out of it. Until the onset of the credit crunch, we tended to assume that the key to perpetual economic progress was ever-increasing consumption; and indeed that part of the cure for our economic ills would be simply to restart the consumption motor. Could we, though, envisage a time when we think more about the right balance between consumption and consolidation and – dare I say it – sharing? When we try to find our way to a new economics that factors in the needs of future as well as current generations? When we try to place a real value on the resources we use up, and the waste we generate, and the impact we have on the rather fragile world around us without which we couldn't do anything? And when we see wisdom in some rather old concepts like husbandry and stewardship and well-being? These aren't easy things with which to conjure and inspire. It means appealing to something more than the automatic immediate aspirations people have. It doesn't mean abandoning the sense of reaching for the best that life can offer. But it does mean having the maturity to discuss and decide, seriously, what the shape of the best" might be. As the greatest of English poets, William Wordsworth, put it:

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“The world is too much with us; late and soon,  
Getting and spending, we lay waste our powers:  
Little we see in Nature that is ours;  
We have given our hearts away...”

25. Perhaps, though, in this real day-to-day world where elections have to be fought and won and people persuaded and environments protected and quality of life achieved this is a little too much to ask. What isn't too much to ask, however, is that we take the reality of climate change seriously, that we address it seriously, and that we respond seriously. Future generations won't forgive us if we don't.

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