

GROWTH AND THE ENVIRONMENT: OPPORTUNITIES AND A WARNING

Richard Price

Chief Economist and Director of Corporate Performance
Department for Environment, Food and Rural Affairs (Defra), London

Keynote Speech

to the UK Network of Environmental Economists' Annual Conference,
The Royal Society, London, March 2010

Firstly I would like to thank the organisers for allowing me the opportunity to speak here today. The UK Network for Environmental Economics (UKNEE) is a great forum for bringing together environmental economists from across the UK, allowing the exchange of ideas and cutting edge research. The efforts of Ece Ozdemiroglu, her colleagues and the Conference's scientific panel have, over the years, turned this event into the UK's premier conference on environmental economics.

2 The Government Economic Service is always interested in the research and work going in the academic community, and is keen to apply new ideas and research to policy-making in order to obtain better outcomes. At a time when resources in government are tightening it is especially important what we are alert to innovation and to better ways to tackle policy problems which offer better value for money. You give us that, and that is why time spent at EnvEcon, for us, is time well spent.

3 The rest of what I am going to say could be summed up as several opportunities, and a warning, for environmental economists.

For more information on Defra and UKNEE see:
www.defra.gov.uk and www.eftec.co.uk/uknee

4 First a quick word about us – in Defra and DECC we employ around 100 economists working across the range of environmental policy issues. In Defra last year we set up a new Environment and Growth Economics team to help us to understand the tradeoffs and complementarities between economic and environmental performance. We are launching today the second in our new Defra Evidence and Analysis Series,¹ in which we set out the theory and evidence on the relationship between the two.

5 This paper reflects the need for us in government to be clear about ways in which the environment and growth influence one another, and how we can make the most of the relationship between them. This is important because

- we need to be sure that all policies across government are aligned to recovery and growth, and resource efficiency, environmental management and assets have a big role to play in sustaining growth and in making businesses resilient to future environmental pressures, particularly as the climate changes; and because
- growth, investment and innovation are themselves major drivers of environmental performance. The availability of funds to invest, from the private as well as the public sector – is one driver of the condition of environmental assets. And innovation and investment by businesses are absolutely critical if we are to meet the challenges of a world in which resource productivity needs to rise so that we can – for example – secure the very challenging

¹ Tim Everett, Mallika Ishwaran, Gian Paolo Ansaloni and Alex Rubin (2010): Economic Growth and the Environment, Defra Evidence and Analysis Series, Paper 2, Department for Environment, Food and Rural Affairs, London. (March)

reductions we need to see in carbon emissions while also making sure that emerging economies are able to meet their aspirations for greater material prosperity.

6 Now for the warning. Allow me to make brief digression into the strange world of ‘decroissance’ – or the anti-growth movement. I have heard repeatedly this year stories about the impossibility that growth can be compatible with environmental sustainability. One extreme example² claimed that because a hamster cannot grow indefinitely, neither can the value of economic activity:

A young hamster, for example, doubles its weight each week between birth and puberty. But if it grew at the same rate until its first birthday, we'd be looking at a nine billion tonne hamster, which ate more than a year's worth of world maize production every day... As things are in nature, so sooner or later, they must be in the economy... There are good reasons why things don't grow indefinitely.³

7 Happily, there are good reasons why this is nonsense. This analysis, and several others like it, ignore the critical role of innovation and human ingenuity – and markets - in tackling the resource use problems we face. This is not human arrogance. It is millions of people working hard to solve the difficult problems of securing a future which respects the resources of the planet while meeting people's aspirations for prosperity and happiness. Rather than trying to switch off growth,

² Andrew Simms, Victoria Johnson and Peter Chowla (2010): Growth Isn't Possible: Why rich nations need a new economic direction; New Economics Foundation, London

³ Andrew Simms, Policy Director, New Economics Foundation.

isn't it better to make sure that the resources and technologies needed are available to help us to make the transition to a low-carbon, resource efficient global economy?

8 Sloppy pseudo-economics risks bringing us all into disrepute. It also gives the impression of environmental economics as something that is remote and disconnected from real-world decision-making. The more remote we seem, the less governments and businesses will take notice of the essential insights people in this room have to offer. So don't be afraid to take these arguments on. In Defra we hugely value the robust and insightful analysis that environmental economists provide as the basis for policy which makes environmental and economic outcomes better for the public.

9 Back to the opportunities. It's been quite a year for environmental economics. There has been a lot to say about the role of environmental policy in recovery, and Paul Ekin's Green Fiscal Commission⁴ made a big contribution on the role of environmental taxes and charges both to tackle environmental damage and also in helping to meet the massive fiscal challenges we now face. Pavan Sukdev's programme on The Economics of Ecosystems and Biodiversity has continued apace, delivering in the last few months a practical set of policy recommendations for governments⁵.

⁴ Green Fiscal Commission (2009): The Case for Green Fiscal Reform: The final report of the UK Green Fiscal Commission; Policy Studies Institute, London.

⁵ The Economics of Ecosystems and Biodiversity (TEEB) (2009): The Economics of Ecosystems and Biodiversity for National and International Policy Makers: Responding to the Value of Nature - Summary; TEEB, Bonn.

10 In the UK we have been making progress in assessing the condition and management of our own ecosystems. The work of the National Ecosystems Assessment,⁶ in which Defra is a co-funder, now includes a large economic component led by Ian Bateman at UEA, drawing on contributions from a large network of economists across the UK.

11 In the work I have been leading for the Government Economic Service on sustainability,⁷ we have started to address the questions of how we measure and safeguard 'critical environmental assets' on which social and economic activity depends, with help from Giles Atkinson and colleagues from LSE. We hope that this work combined with the ecosystems assessment will give us for the first time a clear sense of the condition of our environmental assets and a way of reflecting their scarcity in decisions across government, as we and DECC have already done for carbon.⁸

12 At the very practical end we have made a lot of progress on valuation techniques. Guidelines on valuing environmental impacts have just been published: developed by Eftec and with a technical report from Ian Bateman, with a step-by-step guide on our website.⁹ Also

⁶ UN National Ecosystems Assessment (2010): [Progress and Steps Towards Delivery](#)

⁷ Richard Price and Chris Durham (2009): [GES Review of the Economics of Sustainable Development: Interim Report](#); Department for Environment, Food and Rural Affairs/Government Economic Service, London

⁸ Climate Change Economics, Department of Energy and Climate Change (2009): [Carbon Valuation in UK Policy Appraisal: A Revised Approach](#); Department of Energy and Climate Change, London

recently published Value Transfer Strategy Paper: a joint paper with Natural England, Environment Agency and Forestry Commission. Included a short review of steps to take to integrate valuing ecosystem services into policy appraisal. This raises the power and impact of the studies many of you here do on decisions on projects and policies. We, DECC and other government departments are big consumers of your valuation work, so we will continue to work with you to raise the power of valuation studies and to improve techniques over time.

13 This work has impacts across the range of government programmes – whether it's in the Marine Bill, the design of National parks, our waste strategy, or the Floods and Water Bill. I am pleased to see that the study for Defra by Mike Christie of Aberystwyth University on valuing the benefits of the meeting the UK Biodiversity Action Plans is also on the agenda here today.¹⁰

14 At a time when across government we are looking at the value of everything we do, and frankly preparing for substantial reductions in spending whatever the outcome of the election in the spring, assessing the value of pro-environmental activity is more important than ever. As is showing that environmental quality need not come at the cost of over-burdening and over-constraining businesses in recovery from recession.

⁹ See: [Defra web pages on ecosystem valuation at www.defra.gov.uk/environment/policy/natural-environ/using/value.htm](http://www.defra.gov.uk/environment/policy/natural-environ/using/value.htm)
Defra, Environment Agency, natural England and Forestry Commission (2010): Improving the use of environmental valuation in policy appraisal: A value transfer strategy, Department of Environment, Food and Rural Affairs, London
Efttec (2010): Valuing Environmental Impacts: Guidelines for the Use of Value Transfer, Efttec, London.

¹⁰ Mike Christie (2010): Economic evaluation of the ecosystem services delivered by the UK Biodiversity Action Plans; Institute of Biological, Environmental and Rural Sciences (IBERS), Aberystwyth.

So we are looking at new ways to assess the merits of the different kinds of valuation we use. It's no longer good enough to be confident about the results, we need to be really sure.

15 In finding better, lower-cost and less burdensome ways of achieving better economic and environmental outcomes, we have been drawing on insights from behavioural analysis – where economists, social researchers and psychologists have been pioneering work right at the boundaries of our disciplines to assess how insights into people's knowledge and motivations help or hinder them in taking decisions which have impacts on the environment and natural assets. Our findings – with some practical examples of how Defra has applied behavioural analysis to practical policy implementation – were published in a discussion paper for a conference last week.¹¹ It shows how understanding behaviours can have impact not just through campaigns and better communicated information; but also by improving the design of main spending and regulatory programmes. In a number of areas this work is leading not just to better outcomes, but to policies which are both better value for money for taxpayers and less intrusive for citizens and businesses.

16 It's been a big year for carbon – some of us would argue not big enough - with Copenhagen, for various reasons, not going the way we all wanted. Opinions vary on whether this was a step in the right direction or a major setback, or both at once. The key work for this year will be to try to bring the Copenhagen Accord into the UN system leading

¹¹ Andrea Collier, Andrew Cotterill, Tim Everett, Rachel Muckle, Tony Pike and Amy Vanstone (2010): Understanding and Influencing Behaviours: a review of social research, economics and policy making in Defra; Department for Environment, Food and Rural Affairs, London.

to some good consensus decisions in Cancun in December though probably a legal treaty this year is not likely. In the meanwhile, with your help, the UK is showing real leadership in this area, with the government setting out how it plans to meet first of its legally-binding carbon budgets.¹²

17 Detailed work is being done in each major spending department across Whitehall to show how we will move to low-carbon economy. The UK is the only country in the world to have set national targets in law – a distinction of which we are proud but which we do not want to retain, as governments elsewhere follow suit and adopt a similar approach. In Defra we have some of the hardest areas – hardest to measure and hardest to drive changes – in agriculture and food production; waste; land use; and soil and forestry, both of which provide a large sink for carbon but which if disturbed potentially release huge amounts of carbon into the atmosphere.

18 We launched a few weeks ago our new Defra Evidence and Analysis Series paper on adaptation to climate change,¹³ and new Supplementary Green Book Guidance¹⁴ to help departments to build in the consequences of climate change into the way policies and projects are designed. This looks not just at how government responds, and how we need to give greater value to flexibility given uncertainties about

¹² HM Government (2009): The UK Low Carbon Transition Plan; Department for Energy and Climate Change, London

¹³ Federica Cimato and Michael Mullan (2010): Adapting to Climate Change: Analysing the Role of Government; Defra Evidence and Analysis Series, Paper 1, Department for Environment, Food and Rural Affairs, London. (February)

¹⁴ HM Treasury and Department for Environment, Food and Rural Affairs (2009): Accounting for the Effects of Climate Change: Supplementary Green Book Guidance; HM Treasury/Defra, London

temperature changes and weather patterns in the UK. It also looks at how individuals and businesses can respond – since the bulk of adjustments to climate change will happen in the private sector. It identifies the institutional pressures and constraints people face in making these decisions and identifies a role for government in making sure that existing legal, institutional and regulatory frameworks do not unintentionally get in the way of adaptation.

19 There is a lot going on in this field. We cover some of the key public policy challenges of our time. We simply could not address these problems effectively without the rich contributions from economists in academia, consulting, civil society and business, represented in the room today. I am also delighted that – though we call this the UK network – this country continues to attract some of the best international talent in this field to work in our institutions.

20 We welcome your views on the way we do environmental policy and on the way environmental economics is used on decision-making across government. Many aspects of this are being discussed in today's sessions. So please stay in touch with us, and enjoy the rest of today's proceedings.