

Simon Dietz

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Nationality: UK

DOB: 3rd July 1979

Research interests

Climate change, environmental/resource economics, integrated assessment modelling, public/welfare economics, insurance, corporate sustainability, climate finance

Current appointments

- 2015- *Professor*, Grantham Research Institute on Climate Change and the Environment, and Department of Geography and Environment, LSE
- 2019- *Research Network Fellow*, CESifo

Previous appointments

- 2018-19 *Visiting Fellow*, Oxford Martin School, University of Oxford, UK
- 2008-18 *Deputy Director* then *Director*, ESRC Centre for Climate Change Economics and Policy, LSE
- 2008-17 *Deputy Director* then *Co-Director*, Grantham Research Institute on Climate Change and the Environment, LSE
- 2011-15 *Associate Professor*, Department of Geography and Environment, LSE
- 2006-11 *Assistant Professor*, Department of Geography and Environment, LSE
- 2006-07 *Visiting Fellow*, Tyndall Centre for Climate Change Research, University of East Anglia, UK
- 2005-06 *Policy Analyst*, Stern Review on the Economics of Climate Change, HM Treasury, UK

Education

- 2005 PhD in Geography and Environment, LSE
- 2002 MSc in Human Geography Research, LSE, Distinction
- 2001 BSc in Environmental Science, University of East Anglia, Starred 1st Class
- 1999-2000 Environmental Science, ETH Zürich, Switzerland (ERASMUS exchange programme)

Honours & awards

- 2018 European Award for Researchers in Environmental Economics Under the Age of 40, European Association of Environmental and Resource Economists (EAERE)

- 2018 Finance for the Future Award for “Driving Change Through Education, Training & Academia” (with colleagues on the Transition Pathway Initiative), The Institute of Chartered Accountants in England and Wales
- 2016 Fellow of the Royal Society of Arts, UK
- 2015 Teaching Prize for outstanding teaching performance (on promotion to full Professor), LSE
- 2014 “Outstanding publication in the journal *Environmental and Resource Economics*, 2013”, for “Scientific ambiguity and climate policy” (with Antony Millner and Geoffrey Heal)
- 2011 “Best Paper of 2011” award in *Risk Analysis* journal, for “Strategic appraisal of environmental risks: a comparison between the methods of the UK’s Stern Review on the Economics of Climate Change and its Committee on Radioactive Waste Management” (with Alec Morton)
- 2011 Major Review Teaching Prize for outstanding teaching performance, LSE
- 2001 Starred First Class Honours in B.Sc. Environmental Science, University of East Anglia; top student in year
- 1997 SAGT-Bartholomew Prize; top school-leaving Geography student in Scotland

Publications

CITATION STATISTICS

Google Scholar: total citations = 14,034; h-index = 32; i10-index = 53

JOURNAL ARTICLES

- 2021 “How ambitious are oil and gas companies’ climate goals?” (with Dan Gardiner, Valentin Jahn and Jolien Noels), *Science*, **374(6566)**, 405-408
- 2021 “Economic impacts of tipping points in the climate system” (with James Rising, Thomas Stoerk and Gernot Wagner), *Proceedings of the National Academy of Sciences*, **118(34)**, e2103081118
- 2021 “Are economists getting climate dynamics right and does it matter?” (with Rick van der Ploeg, Armon Rezai and Frank Venmans), *Journal of the Association of Environmental and Resource Economists*, **8(5)**, 895-921
- 2021 “Pricing ambiguity in catastrophe risk insurance” (with Falk Niehoerster), *Geneva Risk and Insurance Review*, **46(2)**, 112-132
- 2021 “Eight priorities for calculating the social cost of carbon” (with Gernot Wagner, David Anthoff, Maureen Cropper, Kenneth Gillingham, Ben Groom, Paul Kelleher, Frances Moore and James Stock), *Nature*, **590**, 548-550
- 2019 “The endowment effect, discounting and the environment” (with Frank Venmans), *Journal of Environmental Economics and Management*, **97**, 67-91
- 2019 “Cumulative carbon emissions and economic policy: in search of general principles” (with Frank Venmans), *Journal of Environmental Economics and Management*, **96**, 108-129
- 2019 “Ambiguity and insurance: capital requirements and premiums” (with Oliver Walker), *Journal of Risk and Insurance*, **86(1)**, 213-235
- 2018 “An assessment of climate action by high-carbon global corporations” (with Charles Fruitiere, Carlota Garcia-Manas, William Irwin, Bruno Rauis and Rory Sullivan), *Nature Climate Change*, **8**, 1072-1175
- 2018 “The economics of 1.5°C climate change” (with Alex Bowen, Baran Doda, Ajay Gambhir and Rachel Warren), *Annual Review of Environment and Resources*, **43**, 18.1-18.26
- 2018 “Economic growth and agricultural land conversion under uncertain productivity improvements in agriculture” (with Bruno Lanz and Tim Swanson), *American Journal of Agricultural Economics*,

- 100(2), 545–569
- 2018 “The climate beta” (with Christian Gollier and Louise Kessler), *Journal of Environmental Economics and Management*, **87**, 258-274
- 2018 “The expansion of modern agriculture and global biodiversity decline: an integrated assessment” (with Bruno Lanz and Tim Swanson), *Ecological Economics*, **144**, 260-277
- 2017 “Global population growth, technology, and Malthusian constraints: a quantitative growth theoretic perspective” (with Bruno Lanz and Tim Swanson), *International Economic Review*, **58**(3), 973-1006
- 2017 “The risk of climate ruin” (with Oliver Bettis and Nick Silver), *Climatic Change*, **140**(2), 109-118
- 2017 “Domestic politics and the formation of international environmental agreements” (with Carmen Marchiori and Alessandro Tavoni), *Journal of Environmental Economics and Management*, **81**, 115-131
- 2016 “Climate Value at Risk of global financial assets” (with Alex Bowen, Philip Gradwell and Charlie Dixon), *Nature Climate Change*, **6**, 676-679
- 2016 “Weighing the costs and benefits of climate change to our children” (with Ben Groom and Billy Pizer), *The Future of Children*, **26**(1), 133-155
- 2016 “Spaces for agreement: a theory of Time-Stochastic Dominance and an application to climate change” (with Nicoleta Anca Matei), *Journal of the Association of Environmental and Resource Economists*, **3**(1), 85-130
- 2015 “Tall tales and fat tails: the science and economics of extreme warming” (with Raphael Cael and David Stainforth), *Climatic Change*, **132**(1), 127-141
- 2015 “Adaptation to climate change and economic growth in developing countries” (with Antony Millner), *Environment and Development Economics*, **20**(3), 380-406
- 2015 “Endogenous growth, convexity of damages and climate risk: how Nordhaus’ framework supports deep cuts in carbon emissions” (with Nicholas Stern), *Economic Journal*, **125**(583), 574-602
- 2014 “Climate change mitigation as catastrophic risk management”, *Environment: Science and Policy for Sustainable Development*, **56**(6), 28-36
- 2013 “Benefit-cost analysis of non-marginal climate and energy projects” (with Cameron Hepburn), *Energy Economics*, **40**, 61-71
- 2013 “Scientific ambiguity and climate policy” (with Antony Millner and Geoffrey Heal), *Environmental and Resource Economics*, **55**(1), 21-46
— winner of the European Association of Environmental and Resource Economists (EAERE) award for Outstanding Publication in the journal *Environmental and Resource Economics*, 2013
- 2013 “Vulnerability to weather disasters: the choice of coping strategies in rural Uganda” (with Jennifer Helgeson and Stefan Hochrainer-Stigler), *Ecology and Society*, **18**(2), 2
— reprinted in William P. Butz, Wolfgang Lutz and Jan Sendzimir (eds.) *Education and Differential Vulnerability to Natural Disasters*, Laxenburg: IIASA, 2014
- 2012 “The treatment of risk and uncertainty in the US social cost of carbon for regulatory impact analysis”, *Economics e-Journal*, **6**, paper no. 2012-18
- 2011 “Climate policy under sustainable discounted utilitarianism” (with Geir Asheim), *Journal of Environmental Economics and Management*, **63**(3), 321-335
- 2011 “High impact, low probability? An empirical analysis of risk in the economics of climate change”, *Climatic Change*, **103**(3), 519-541
- 2011 “Strategic appraisal of environmental risks: a contrast between the UK’s Stern Review on the Economics of Climate Change and its Committee on Radioactive Waste Management” (with Alec Morton), *Risk Analysis*, **31**(1), 129-142
— recipient of a “Best Paper of 2011” award from Risk Analysis

- 2010 “The equity-efficiency trade-off in environmental policy: evidence from stated preferences” (with Giles Atkinson), *Land Economics*, **86**(3), 423-443
— reprinted in Kenneth G. Willis and Guy Garrod (eds.) *Valuing Environment and Natural Resources*, Cheltenham: Edward Elgar, 2012
- 2010 “Environmental prices, uncertainty and learning” (with Sam Fankhauser), *Oxford Review of Economic Policy*, **26**(2), 270-284
- 2009 “New frontiers in the economics of climate change” (with David J. Maddison), *Environmental and Resource Economics*, **43**(3), 295-306
- 2009 “Siblings, not triplets: social preferences for risk, inequality and time in discounting climate change” (with Giles Atkinson, Jennifer Helgeson, Cameron Hepburn and Hakon Saelen), *Economics e-Journal*, **3**, paper no. 2009-26
- 2009 “On the timing of greenhouse gas emissions reductions: a final rejoinder to the symposium on “The Economics of Climate Change: The Stern Review and its Critics”” (with Nicholas Stern), *Review of Environmental Economics and Policy*, **3**(1), 138-140
- 2008 “Why economic analysis supports strong action on climate change: a response to the Stern Review’s critic” (with Nicholas Stern), *Review of Environmental Economics and Policy*, **2**(1), 94-113
- 2007 “Right for the right reasons: a final rejoinder on the Stern Review” (with Dennis Anderson, Nicholas Stern, Chris Taylor and Dimitri Zenghelis), *World Economics*, **8**(2), 229-258
- 2007 “Some economics of ‘dangerous’ climate change: reflections on the Stern Review” (with Chris Hope and Nicola Patmore), *Global Environmental Change*, **17**(3-4), 311-325
- 2007 “The impacts of climate change: perspectives from the Stern Review”, *The Brown Journal of World Affairs*, **13**(2), 173-184
- 2007 “Reflections on the Stern Review (1): a robust case for strong action to reduce the risks of climate change” (with Chris Hope, Nicholas Stern and Dimitri Zenghelis), *World Economics*, **8**(1), 121-168
- 2007 “Corruption, the resource curse and genuine saving” (with Eric Neumayer and Indra de Soysa), *Environment and Development Economics*, **12**(1), 33-53
- 2007 “Weak and strong sustainability in the SEEA: concepts and measurement” (with Eric Neumayer), *Ecological Economics*, **61**(4), 617-626
- 2005 “Public perceptions of equity in environmental policy: traffic emissions policy in an English urban area” (with Giles Atkinson), *Local Environment*, **10**(4), 445-459
- 2005 “Genuine savings: a critical analysis of its policy-guiding value” (with Eric Neumayer), *International Journal of Environment and Sustainable Development*, **3**(3/4), 276-292
- 2001 “Economic growth, biodiversity loss and conservation effort” (with W. Neil Adger), *Journal of Environmental Management*, **68**(1), 23-35

BOOKS

- 2014 *Handbook of Sustainable Development* (co-edited with Giles Atkinson, Eric Neumayer and Matthew Agarwala), Cheltenham: Edward Elgar, 2nd edition
— first edition 2007
- 2011 *The Political Economy of the Environment: an Interdisciplinary Approach* (co-edited with Jonathan Michie and Christine Oughton), Abingdon: Routledge, 2011

BOOK CHAPTERS

- 2021 “Strategic decarbonisation options for the UK” (with Sam Fankhauser), in Francesco Caselli, Alexander Ludwig and Rick van der Ploeg (eds.) *No Brainers and Low-Hanging Fruit in National Climate Policy*, London: CEPR Press

- 2016 “Locking in climate vulnerability: where are the investment hotspots?” (with Charlie Dixon and John Ward), in Sam Fankhauser and Tom McDermott (eds.) *The Economics of Climate Resilient Development*, Cheltenham: Edward Elgar
- 2015 “Cost-benefit analysis”, in Philipp Pattberg and Fariborz Zelli (eds.) *Encyclopedia of Global Environmental Governance and Politics*, Cheltenham: Edward Elgar
- 2011 “From efficiency to justice: utility as the informational basis of climate change strategies, and some alternatives”, in John Dryzek, Richard B. Norgaard and David Schlosberg (eds.) *The Oxford Handbook of Climate Change and Society*, Oxford: Oxford University Press
- 2011 “The Stern Review”, in Stephen H. Schneider, Michael Mastrandrea and Terry H. Root (eds.) *The Encyclopedia of Climate and Weather*, Oxford: Oxford University Press
- 2009 “Economics and the governance of sustainable development” (with Eric Neumayer), in W. Neil Adger and Andrew Jordan (eds.) *Governing Sustainability: Essays in Honour of Tim O’Riordan*, Cambridge: Cambridge University Press
- 2009 “Economics, ethics and climate change” (with Cameron Hepburn and Nicholas Stern), in Kaushik Basu and Ravi Kanbur (ed.) *Arguments for a Better World: Essays in Honour of Amartya Sen (Volume 2: Society, Institutions and Development)*, Oxford: Oxford University Press
- 2007 “Progress in the measurement of sustainable development” (with Giles Atkinson), in *Welfare Economics and Sustainable Development*, edited by Yew-Kwang Ng and Ian Wills, Encyclopedia of Life Support Systems, developed under the auspices of the UNESCO, Oxford: EOLSS Publishers
- 2006 “A critical appraisal of genuine savings as an indicator of sustainability” (with Eric Neumayer), in Philip Lawn (ed.) *Sustainable Development Indicators in Ecological Economics*, Cheltenham: Edward Elgar, 2006 (link to publisher’s page) (download accepted version)
— reprinted in Joan Martinez-Alier and Inge Ropke (eds.) *Recent Developments in Ecological Economics*, Cheltenham: Edward Elgar, 2008 (link to publisher’s page)
- 2006 “Some constructive comments on the Index of Sustainable Economic Welfare” (with Eric Neumayer), in Philip Lawn (ed.) *Sustainable Development Indicators in Ecological Economics*, Cheltenham: Edward Elgar, 2006

SELECTED INDUSTRY/POLICY REPORTS, MEDIA ARTICLES, ETC.

- 2021 “What does the circular economy have to do with meeting climate goals?” (with Nikolaus Hasreiter, Antonina Scheer and Beata Bienkowska), *LSE Business Review*, 11 March 2021
- 2021 “The oil and gas industry will need to scale back much faster to limit warming to 1.5°C” (with Dan Gardiner, Valentin Jahn and Rory Sullivan), *LSE Business Review*, 10 February 2021
- 2019 “Steering the climate system: an extended comment” (with Linus Mattauch et al.), *Centre for Climate Change Economics and Policy Working Paper 347 and Grantham Research Institute on Climate Change and the Environment Working Paper 315* – a revised version has been published as Mattauch, L. et al. (2020) “Steering the climate system: comment”, *American Economic Review*, **110**(4), 1231-1237
- 2018 “Critical reflections on carbon performance in high carbon emitting companies” (with Rory Sullivan), *Responsible Investor*, 21 November 2018
- 2018 “The economics of 1.5°C climate change”, *EAERE Magazine*, no. 3, October 2018
- 2018 “The low-carbon transition in autos and paper”, *Responsible Investor*, 14 February 2018
- 2016 “Introducing the Transition Pathway Initiative” (with Adam Matthews, Rory Sullivan and Faith Ward), *Responsible Investor*, 22 June 2016
- 2016 “The effects of climate change on financial stability, with particular reference to Sweden” (with

- Alex Bowen), Report for Finansinspektionen (The Swedish Financial Supervisory Authority), Grantham Research Institute on Climate Change and the Environment, February 2016
- 2015 “Declare robust timetable for action on subsidies” (with Jeffrey Sachs and others), *Financial Times*, 13 November 2015
- 2015 “Critical minerals today and in 2030: an analysis for OECD countries” (with Renaud Coulomb, Maria Godunova and Thomas Bligaard Nielsen), *OECD Environment Working Papers*, No. 91, OECD Publishing, Paris
- 2014 “Non-economic losses in the context of the UNFCCC work programme on loss and damage” (with Sam Fankhauser and Philip Gradwell), Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, Policy Paper
- 2013 “Carbon tax v cap-and-trade: which is better?” (with Luca Taschini and Naomi Hicks), *Guardian’s Ultimate Climate Change FAQ*
- 2012 “Why do we see unilateral action on climate change?” (with Carmen Marchiori and Alessandro Tavoni), *Vox*, 5 December 2012
- 2012 “Report on Kerry Smith’s keynote lecture to EAERE2012: valuing nature in general equilibrium”, *EAERE Newsletter*, Autumn 2012
- 2012 “Why do economists describe climate change as a ‘market failure?’” (with Alex Bowen and Naomi Hicks), *Guardian’s Ultimate Climate Change FAQ*
- 2012 “Why does climate change get described as a ‘stock-flow’ problem?” (with Naomi Hicks), *Guardian’s Ultimate Climate Change FAQ*
- 2011 “Comments on “Climate Risks and Carbon Prices: Revising the Social Cost of Carbon”, *Economics for Equity and the Environment (E3 Network)*
- 2011 *Climate Change Scenarios: Implications for Strategic Asset Allocation* (with Danyelle Guyatt and a team from Mercer, the Grantham Research Institute and Vivid Economics)
- 2011 “Thinking through the climate change challenge” (open letter with Robert Hahn, Alistair Ulph and others), *Vox*, 16 January 2011
- 2010 “Adaptation in the UK: a decision-making process” (with Nicola Ranger, Antony Millner, Sam Fankhauser, Ana Lopez and Giovanni Ruta), Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, Policy Brief
- 2010 “Still wary of Bjorn Lomborg’s pronouncements on climate change” (with Alex Bowen, Bob Ward and Dimitri Zenghelis), *The Guardian*, 2 September 2010
- 2010 “Ambiguity is another reason to mitigate climate change” (with Antony Millner and Geoffrey Heal), *Vox*, 1 September 2010
- 2008 *A Long-run Target for Climate Policy: the Stern Review and its Critics*, supporting research for the UK Committee on Climate Change’s inaugural report Building a Low-Carbon Economy – the UK’s Contribution to Tackling Climate Change
- 2008 *Review of the Methodological Approaches Available for Setting Carbon Budgets* (with Paul Watkiss, Will Blyth, Tom Downing, Alistair Hunt and Ken Fletcher), report to the UK Committee on Climate Change, Oxford: Paul Watkiss Associates, 2008 (link to the CCC)
- 2007 *Review of DEFRA paper “The Social Cost Of Carbon And The Shadow Price Of Carbon: What They Are And How To Use Them In Economic Appraisal In The UK*, peer review for the UK Department for Environment, Food and Rural Affairs

Service to the profession and external appointments

- 2021 Vice President, *European Association of Environmental and Resource Economists*
- 2020- Commissioner, *Food Systems Economics Commission*

2020-	Council Member, <i>European Association of Environmental and Resource Economists</i>
2018-	Scientific Committee Member, <i>UK Network of Environmental Economists</i>
2017-	Co-editor, <i>Journal of the Association of Environmental and Resource Economists</i>
2017-	UK Representative, <i>European Association of Environmental and Resource Economists</i>
2012-	Programme Committee Member, <i>Annual Conference of the European Association of Environmental and Resource Economists and World Congress of Environmental and Resource Economists</i>
2014-2016	Editorial Board Member, <i>Journal of the Association of Environmental and Resource Economists</i>
2011-15	Editorial Board Member, <i>Journal of Environmental Economics and Management</i>

Research grants

2020-22	National Investing Bodies of the Church of England, Environment Agency Pension Fund et al. (£968,703), “Transition Pathway Initiative”
2018-19	National Investing Bodies of the Church of England, Environment Agency Pension Fund et al. (£379,000), “Transition Pathway Initiative”
2016-17	National Investing Bodies of the Church of England, and the Environment Agency Pension Fund (£113,000), “Transition Pathway Initiative”
2013-18	ESRC Centres Competition (£5.7 million), “Centre for Climate Change Economics and Policy” (Second Phase)
2013-16	MAVA Foundation and the Graduate Institute of International and Development Studies (CHF40,000), “Sustainable Human Niche”
2010-14	European Commission (€160,000), “Global-IQ: Impacts Quantification of Global Changes”
2008-13	Munich Re (£3 million), “Evaluating the Economics of Climate Risks and Opportunities in the Insurance Sector: the Munich Re Programme within the Centre for Climate Change Economics and Policy”
2018-2017	Grantham Foundation for the Protection of the Environment (c. £23.2 million), “Grantham Research Institute on Climate Change and the Environment”
2008-13	ESRC Centres Competition (£5.8 million), “Centre for Climate Change Economics and Policy” (First Phase)
2005-6	ESRC Postdoctoral Fellowship “The Stern Review on the Economics of Climate Change”
2004-6	ESRC Small Research Grant (£14.5k) “Public Perceptions of Environmental Equity: an English Urban Context”
2002-5	ESRC Research Studentship “Equity in Environmental Policy: Investigating Public Perceptions”

Refereeing

American Economic Journal: Economic Policy; American Economic Journal: Macroeconomics; AXA Research Fund; B.E. Journal of Economic Analysis and Policy; British Academy; Climate Change Economics; Climate Policy; Climatic Change; Conservation Biology; Ecological Economics; Economic and Social Research Council; Economic Journal; *Economica*; Economics and Philosophy; Economics E-Journal; Energy Economics; Energy Policy; Environment and Planning C; Environmental and Resource Economics; Environmental Modelling and Software; Environmental Science and Policy; Environmental Science and Technology; European Economic Review; European Research Council; Global Environmental Change; International Economic Review; Land Economics; Journal of the Association of Environmental and Resource Economists; Journal of Benefit-Cost Analysis; Journal of Economic Growth; Journal of the European Eco-

conomic Association; Journal of Environmental Economics and Management; Journal of Public Economics; Journal of Public Economic Theory; Journal of Risk and Insurance; Management Science; Nature; Nature Climate Change; Nature Communications; Oxford Review of Economic Policy; Oxford University Press; Philosophical Transactions of the Royal Society A; Proceedings of the National Academy of Sciences; Quarterly Journal of Economics; Resource and Energy Economics; Routledge/Earthscan; Science; Scandinavian Journal of Economics; Swiss National Science Foundation

Teaching

2012-	MSc course in “Climate change: science, economics and policy”, LSE, course manager and lecturer
2019-20	MSc course in “Economic appraisal and valuation”, LSE, course manager and lecturer
2017-	BSc course in “Applied environmental economics”, LSE, lecturer
2011-	Executive Summer School course in “Climate change economics and governance”, LSE, course manager and lecturer
2009-14	Executive course in “How to appraise policies, programmes, projects and impact assessments”, UK Government Economic Service, lecturer
2006-11	MSc course in “Environmental assessment”, LSE, course manager and lecturer
2006-8	MSc course in “Environmental regulation: implementing policy”, LSE, seminar leader
2006-8	BSc course in “Environmental assessment and management”, LSE, course manager and lecturer

Advising

2021-	Alvaro Carbonell-Rodriguez
2020-	Glen Gostlow
2020-	Ghassane Benmir
2019-	Manuel Linsenmeier
grad. 2019	Lutz Sager (Georgetown University)
grad. 2018	Louise Kessler (Institute for Climate Economics (I4CE), Paris)
grad. 2016	Jennifer Helgeson (National Institute of Standards and Technology, USA)
grad. 2014	Giovanni Ruta (World Bank)
visited 2012	Anca Matei (Joint Research Centre of the European Commission, Seville, Spain)

University Service

2020-	Head of the Environment Group, Department of Geography and Environment, LSE
2019-	Programme Director, PhD Environmental Economics, LSE
2015-	Member of the Research Committee, Department of Geography and Environment, LSE
2008-18	Deputy Director then Director, ESRC Centre for Climate Change Economics and Policy, LSE
2008-17	Deputy Director then Co-Director, Grantham Research Institute on Climate Change and the Environment, LSE
2014-17	Co-Chair of the Research Centre Directors’ Forum, LSE
2010-11	Member of the Post-Sutton Committee on Governance of Research Centres and Units, LSE

Professional affiliations

American Economic Association, Association of Environmental and Resource Economists, European Association of Environmental and Resource Economists