

Current employer: Fenner School of Environment and Society, Australian National University
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EDUCATION

1994 University of Bristol, U.K.: PhD in Economics
"Theoretical essays on sustainability and environmental policy"

1983 University of London, U.K.: MSc in Economics
Distinctions (highest grades) awarded on all papers

1976 University of Cambridge, U.K.: BA in Applied Mathematics and Theoretical Physics

EMPLOYMENT

Jan 05 - Senior Fellow, Fenner School (formed partly from the Centre for Resource and Environmental Studies [CRES] in March 2007), ANU

Jul 99 - Jan 05 Fellow, CRES (Research-Only post):
Research, consultancy, teaching and administration on environmental/ecological/resource economics, and sustainability. PhD supervision.

Jul 95 - Apr 99 Lecturer B, Environment Department (formerly Dept. of Environmental Economics and Environmental Management), University of York, U.K.:
Research, teaching, supervision, administration and consultancy.

Apr 93 - Jun 95 Research Fellow under the U.K. Economic and Social Research Council's Global Environmental Change Initiative, at Department of Economics, University College London, U.K.:
Research on the economic theory of sustainability, and of market mechanisms of pollution control.

Mar 90 - Mar 93 U.K. Centre for Economic and Environmental Development Research Fellow, Department of Economics, University of Bristol, U.K.:
Research/consultancy on pollution/resource taxation in sustainability and environmental policy. Interactions with public finance.

Sep 89 - Feb 90 Consultant, World Resources Institute, Washington D.C., U.S.A.:
Planning UNECE Workshop on Economics of Sustainable Development

Sep 87 - Aug 89 Visiting Harkness Fellow in Economics, Environment and Behavior Program, University of Colorado at Boulder, U.S.A.:
Research on environmental resource depletion and discounting in sustainability theory; and on property rights and environmental taxation.

- Jan 85 - Aug 87 Economic Adviser in Central Directorate of Environmental Protection, Department of Environment HQ, London, U.K.:
Economic analysis, advice, and supervising consultants' research on government policies on water pollution, cross-media pollution, Polluter Pays Principle, forestry, agriculture and rural land-use.
- Sep 79 - Oct 84 Higher/Senior Scientific Officer, Building Research Station, Department of Environment, and Headquarters, Department of Energy, U.K.
Research/advice on economics of energy efficiency in UK buildings.
- Sep 76 - Aug 79 Scientific Officer, Meteorological Office, Malvern, U.K.:
Analysis and computer display of radar and satellite weather data.

CONTRACTS AND GRANTS SINCE 2003 on which I was an investigator:

- Jun – Sep 15 Expert contribution to “Social cost of carbon assessment for NSW policy analysis”, report by Frank Jotzo, Crawford School of Public Policy, ANU, to NSW Department of Environment and Heritage.
- Apr 13 - Jun 14 A\$16,500 from ACTEW/ACTEWAGL Endowment Fund for research on "Cognitive biases in perceptions of household water and energy consumption" (led by Walter Reinhardt, Fenner School PhD student).
- Mar 12 - Mar 15 A\$240,000 from Australian Research Council Discovery grant for research on "Energy transitions: past, present and future" (led by Professor David Stern, ANU).
- Aug 08 A\$5,000 invited consultancy on economics of climate adaptation for Australian Government Department of Climate Change, Canberra.
- May 08 A\$1,600 invited consultancy on energy efficiency and climate policy, for Australian Government Department of Environment, Canberra.
- May 07 - Sep 10 A\$87,500 from Australian Government Department of Environment and Water Resources, for research project on Economics of Greenhouse Gas Control.
- Aug 03 - Oct 04 US\$95,500 from Stanford University for research contract on "Targets for [greenhouse gas] emissions in developing countries." (joint proposal with Frank Jotzo, CRES PhD student).

RESEARCH OUTPUT (H-indices: 11 on Web of Science, 25 on Google Scholar)

Research in progress

- Pezzey, John C. V. (December 2016). "High unknowability in climate economics: The case for less cost-benefit and more cost-effectiveness analysis".
- Pezzey, John C. V., David I. Stern and Yingying Lu (March 2017). “From wood to coal: directed technical change and the British industrial revolution.”
- Pezzey, Jack. *Sustainability Economics: Scarcity and Growth on a Finite Planet*; c.150k words; book contract signed with Cambridge University Press; completion planned in 2017.

Refereed journal articles

- Pezzey, John C.V. and Paul J. Burke (2014). "Towards a more inclusive and precautionary indicator of global sustainability." *Ecological Economics*, 106, 141-154.
- Pezzey, John C.V. (2014). "The influence of lobbying on climate policies; or, why the world might fail." *Environment and Development Economics*, 19, 329-332.
- Pezzey, John C.V. and Frank Jotzo (2013). "Carbon tax needs thresholds to reach its full potential." *Nature Climate Change*, 3, 1008-1011.
- Pezzey, John C.V. and Frank Jotzo (2012). "Tax-versus-trading and efficient revenue recycling as issues for greenhouse gas abatement." *Journal of Environmental Economics and Management*, 64, 230-236.
- Stern, David I., John C.V. Pezzey and Ross Lambie (2012). "Where in the world is it cheapest to cut carbon emissions?" *Australian Journal of Agricultural and Resource Economics*, 56, 315-331.
- Pezzey, John C.V., Salim Mazouz and Frank Jotzo (2010). "The logic of collective action and Australia's climate policy." *Australian Journal of Agricultural and Resource Economics*, 54, 185-202.
- Pezzey, John C.V., Frank Jotzo and John Quiggin (2008). "Fiddling while carbon burns: why climate policy needs pervasive emission pricing as well as technology promotion." *Australian Journal of Agricultural and Resource Economics*, 52, 97-110.
- Jotzo, Frank and John C.V. Pezzey (2007). "Optimal intensity targets for greenhouse gas emissions trading under uncertainty." *Environmental and Resource Economics*, 38, 259-284.
- Sharples, Jason J. and John C.V. Pezzey (2007). "Expectations of linear functions with respect to truncated multinormal distributions, with applications for uncertainty analysis in environmental modelling." *Environmental Modelling and Software*, 22(7), 915-923.
- Pezzey, John C.V., Nick Hanley, Karen Turner and Dugald Tinch (2006). "Comparing augmented sustainability measures for Scotland: is there a mismatch?" *Ecological Economics*, 57, 60-74.
- Pezzey, John C.V. (2004). "Exact measures of income in a hyperbolic economy." *Environment and Development Economics*, 9, 473-484.
- Pezzey, John C.V. (2004). "Sustainability policy and environmental policy." *Scandinavian Journal of Economics*, 106, 339-359.
- Pezzey, John C.V. (2004). "One-sided sustainability tests with amenities, and changes in technology, trade and population." *Journal of Environmental Economics and Management*, 48, 613-631.
- Pezzey, John C.V. (2003). "Emission taxes and tradable permits: a comparison of views on long run efficiency." *Environmental and Resource Economics*, 26, 329-342.
- Pezzey, John C.V. and John M. Anderies (2003). "The effect of subsistence on collapse and institutional adaptation in population-resource societies." *Journal of Development Economics*, 72, 299-320.
- Pezzey, John C.V. (2003). "Measuring technical progress in gross and net products." *Economics Letters*, Vol 78 No 2, 247-252.
- Pezzey, John C.V., Callum M. Roberts and Bjorn T. Urdal (2000). "A simple bioeconomic model of a marine reserve." *Ecological Economics*, 3, 77-91.
- Pezzey, John C.V. and Cees Withagen (1998). "The rise, fall and sustainability of capital-resource economies." *Scandinavian Journal of Economics*, 100, 513-527.

- Pezzey, John C.V. and Andrew Park (1998). "Reflections on the double dividend debate: The importance of interest groups and information costs." *Environmental and Resource Economics*, 11, 539-555.
- Pezzey, John C.V. (1997). "Sustainability constraints versus 'optimality' versus intertemporal concern, and axioms versus data." *Land Economics*, 73, 448-466.
- Pezzey, John (1992). "The symmetry between controlling pollution by price and controlling it by quantity." *Canadian Journal of Economics*, 25, 983-91.
- Pezzey, John (1992). "Sustainability: an interdisciplinary guide." *Environmental Values*, 1, 321-62.
- Pezzey, John (1992). "Analysis of unilateral CO₂ control in the European Community and OECD." *The Energy Journal*, 13, 159-71.

Selected other refereed publications

- Pezzey, John C.V. (2006). "Reconsidering reconsidered: why sustainable discounting need not be inconsistent over time." In D. Pannell and S. Schilizzi, eds., *Economics and the Future: Time and Discounting in Private and Public Decision-Making*, 69-76. Cheltenham, U.K.: Edward Elgar.
- Pezzey, John C.V. and Michael A. Toman (2005). "Sustainability and its economic interpretations." In R.D. Simpson, M.A. Toman and R.U. Ayres, eds., *Scarcity and Growth: Natural Resources and the Environment in the New Millennium*, 121-141. Washington D.C.: RFF Press.
- Pezzey, John C.V. and Michael A. Toman (2002a). "Progress and problems in the economics of sustainability." In T. Tietenberg and H. Folmer, eds., *International Yearbook of Environmental and Resource Economics 2002/3*, 165-232. Cheltenham, U.K.: Edward Elgar.
- Pezzey, John C.V. and Michael A. Toman, eds. (2002b). *The Economics of Sustainability*. (23 reprinted articles with introduction by Pezzey and Toman.) Aldershot, U.K.: Ashgate.
- Toman, Michael A., John Pezzey and Jeffrey Krautkraemer (1995). "Neoclassical economic growth theory and 'sustainability'". In D. Bromley (ed.), *Handbook of Environmental Economics*, 139-165. Blackwell, Oxford.
- Pezzey, John (1988). "Market mechanisms of pollution control: 'polluter pays,' economic and practical aspects." In R.K. Turner (ed.), *Sustainable Environmental Management: Principles and Practice*, 190-242. Belhaven Press, London.

Commissioned technical reports

- Pezzey, J.C.V. and N.R. Lambie (2001). *CGE Models for Evaluating Domestic Greenhouse Policies in Australia: A Comparative Analysis*. Published report to the Productivity Commission. Canberra: AusInfo. (113pp)
- Pezzey, John C.V. and Greig Mill (1998). *A Review of Tariffs for Public Water Supply*. Report for National Water Demand Management Centre, U.K. Environment Agency, Worthing, Sussex, January 1998. (62pp)
- Pezzey, John (1991). *Impacts of Greenhouse Gas Control Strategies on U.K. Competitiveness: A Survey and Exploration of the Issues*. Published report to the U.K. Department of Trade and Industry. HMSO, London. (149pp)
- Pezzey, John (1989). "Economic Analysis of Sustainable Growth and Sustainable Development."

Environment Department Working Paper No. 15. Washington D.C.: World Bank. Published in 1992 as *Sustainable Development Concepts: An Economic Analysis*, Environment Paper No. 2. Washington D.C.: World Bank. (71pp)

Pezzey, John (1984). *An Economic Assessment of Some Energy Conservation Measures in Housing and Other Buildings*. Building Research Establishment Report, Watford, UK. (254pp)

OUTREACH: SELECTED PUBLIC CONTRIBUTIONS TO AUSTRALIAN / NZ CLIMATE POLICY DEBATES, 2006-9

Pezzey, Jack (2014). "Why uncontrolled climate change may be an ultimate limit to growth." Online opinion piece in *The Conversation*, 30 October.

Pezzey, Jack (2013). "To cut more emissions, a carbon tax needs to raise less revenue." Online opinion piece in *The Conversation*, 27 November.

Member of Climate Commission's ad hoc economics roundtable on carbon pricing, May 2011.

4 invited guest lectures in 2007-10 (CSIRO x 2, Federal Dept of Industry, SEWPAC).

Pezzey, Jack (2010). Submission to Senate Select Committee on New Taxes, 1 November.

Pezzey, Jack (2009). 6-page submission and 45-minute oral evidence to Senate Select Committee on Climate Policy.

Pezzey, Jack (2008). "Garnaut has got the compo right: there is no heart-melting case for free emission permits." Opinion piece in the *Canberra Times*, 25 February.

Pezzey, Jack and Frank Jotzo (2007). "Pre-election greenhouse grab is on - Emissions trading can create vast new riches, but for whom?" Opinion piece in *The Age*, 18 June.

Pezzey, Jack (2007). Submission to Prime Minister's Task Group on Emissions Trading, March.

Pezzey, Jack (2006). "Emissions pricing: Avoiding both the rock and the hard place." In *Competition and Regulation Times*, Wellington, New Zealand, July, 6-7.

Pezzey, Jack (2006). "Pricing the environment: the pros and cons of using tradable emission permits and emission taxes to control pollution." *Environmental Management Handbook 2006*, 15-16. Australian Industry Group.

SELECTED SUPERVISORY AND TEACHING EXPERIENCE AT ANU

Current PhD supervision

Edwina Fingleton-Smith (Chair, 2015-), "Perceptions and experience of energy access for development in Kenya" (not Primary Supervisor)

Carl Tidemann (Chair, 2015-), "State-society interactions and the Australian renewable energy transition"

Yan Zhang (Assoc Supervisor, 2016-), "Occupant behavior and its impact on energy consumption of urban residential buildings"

Completed MPhil/PhD supervision (as Chair of panel unless noted)

Elizabeth Boulton (Acting Chair, 2014-17), "Interdisciplinary approaches to framing climate and environmental risk"

Walter Reinhardt (2011-14), "Knowing more, using less: prospects for household-led

- change in energy and water systems" (Chair, then co-supervisor)
- N. Ross Lambie (2009-14), "A real options analysis of greenhouse gas emissions trading scheme design: Implications for the transition to low emissions electricity generation technologies in Australia" (co-supervisor)
- Greg Buckman (2008-11), "Renewable electricity support policy: Lessons for Australia from overseas experience"
- Qinghong Pu (2002-9), "Dynamic tradable discharge permits for managing river water quality: an evaluation of Australia's Hunter River Salinity Trading Scheme."
- Phillip Pagan (2002-7), "Evaluation of institutions for interstate water trading involving the Australian Capital Territory". (Died before completion; MPhil awarded Jul 08 for incomplete thesis)
- Frank Jotzo (2002-6), "Global climate policy after the Kyoto Protocol: flexible economic mechanisms for South and North under uncertainty and institutional constraints."
- N. Ross Lambie (2000-6), "The effect of tradeable carbon emissions permits on firm investment behaviour." (Withdrew before completion, owing to ill health)

Teaching since 2002

- 2017 Convene **39-hr course, ENVS8016 Contemporary Issues in Environment...**
- 2016 Co-convene **39-hr course, ENVS8016 Contemporary Issues in Environment...**
- 2016, 2015: Guest lecture on global sustainability to EMDV8012 Ecological Economics & Policy and ENVS8016 Contemporary Issues in Environment etc
- April 2017, April 2016, April 2015, April 2013, 2011, July 2005: 2 x 1.5 hr classes on plain English to Fenner School Honours & PhD students
- Sep 2015, Sep 2014: Guest lecture on global sustainability to Fenner ENVS8016 Contemporary Perspectives in Environment-Society Interaction course
- May 2011: 4 guest lectures on pollution and climate economics for ENVS2007 Fenner undergraduate course in "Economics for the Environment"
- Semester 2, 2011, 2006-09: **39-hr course, IDEC8004 "Sustainability and Ecological Economics"**, for Crawford's MSc in Environmental & Resource Economics
- May 2009, May 2008: Guest lecture on emissions taxes and trading to Environmental Policy and Planning undergraduate course
- May 2006, May 2005, May 2004, April 2002: Guest lecture on economics of sustainable development for Economics department's Resource and Environmental Economics undergraduate/honours course
- April 2004, May 2002: 4 x 1.5 hr classes to CRES PhD students on plain English & seminar presentation.

SUMMARY OF SUPERVISORY AND TEACHING EXPERIENCE AT ENVIRONMENT DEPARTMENT, UNIVERSITY OF YORK

Sep 96 - Apr 99 **PhD supervision** of 2 students:

- Roberto Martinez-Espineira (1998-99, 1st half of PhD), "The efficiency and acceptability of seasonal pricing of urban water supplies", completed 2001;

Pamela Mason (1996-99), "Sustainable income and the depletion of renewable and non-renewable resources", completed 1999.

Oct 95 - Apr 99

Teaching

4 x 18 hr, 1st yr BSc course in algebra and calculus
4 x 18 hr, 2nd yr BSc course in Economics of Ecological Resources
1 x 18 hr, MSc course in Public Economics and the Environment
3 x 3/5ths of 18 hr, MSc course in Resource Economics
3 x 2/5ths of 18 hr, MSc course in Research Methods

BSc/MSc supervision

10 3rd year BSc projects (recycling policies, market mechanisms of water pollution control, congestion control, economics of marine reserves, comparing national sustainability policies, etc)
7 MSc dissertations (producer agreements over fishing quotas, CO₂ emissions embodied in trade, genetic vulnerability of major food crops, cost-benefit analysis of a marine reserve in West Indies, survey on choice of local transport mode, etc)

ADMINISTRATIVE SERVICE AT AUSTRALIAN NATIONAL UNIVERSITY

Continuing

Feb 12 - Associate Director (Higher Degree Research), Fenner School
Jan 08 - Convener, Economics and Environment Lunch, ANU
Jan 02 - Webmaster and joint coordinator, Economics and Environment Network (EEN) at ANU (see <http://een.anu.edu.au>)

Completed since 2005

Jul 16 Chair of Liaison Committee for hiring new Director of the Fenner School
May 09 - Dec 12 Academic member, Information Technology Committee, Fenner School
Apr 09 Member for Fenner School on Liaison Committee for new Director of ANU College of Medicine, Biology and the Environment
Sep 01 - Nov 07 Member, Board of Studies, Graduate Program in Economics
Sep 99 - Oct 07 Organised 6-8 seminars/year in environmental/ecological economics (for EEN since 2002)
Sep 05 - Jul 07 Member, Local Ethics Committee for CRES
Nov 04 - May 05 Chair, Program Committee for ANU's 2nd Economics and Environment Network National Workshop held on 5-6 May 2005

UNIVERSITY ADMINISTRATIVE SERVICE BEFORE ANU

Jul 95 - Dec 98 **University of York:** Departmental Examinations Officer; Coordinator and Promoter for MSc in Environmental Economics and Environmental Management; Undergraduate, then Graduate Handbook Writer; Pastoral Supervisor of 8-10 BSc and 2-6 MSc/Diploma students.
Apr 93 - Mar 95 **University College London:** Organiser of 40 seminars and 17 workshops in environmental economics, Department of Economics

BOOK DRAFTS REFEREED FOR PUBLISHERS SINCE 2005

Grubb, Michael (2010). "Setting a price". Ch. 7 of *The Carbon Connection*. Earthscan.

Hanley, Nick, Jason Shogren and Ben White (2005). Chs. 2, 4 & 5 of *Environmental Economics in Theory and Practice*, 2nd edn. Basingstoke, UK: Palgrave Macmillan.

JOURNALS REFEREED FOR SINCE 2005 (if more than once, number is in brackets)

Agenda, *Asia-Pacific Policy Studies*, *Australian J. Agricultural & Resource Economics* (4), *Climate Change Economics*, *Climate Policy* (2), *Ecological Economics* (6), *Environment and Development Economics* (2), *Environmental & Resource Economics* (6), *Environmental Research Letters*, *German Economic Review*, *Global Environmental Change*, *International Review of Environmental and Resource Economics*, *J. Environmental Economics & Management* (6), *Resource & Energy Economics*, *Sustainability*

OTHER PROFESSIONAL SERVICE OUTSIDE ANU SINCE 2007

Feb 15,16,17 Member of Programme Committee for 2015, 2016 & 2017 Annual Conferences of European Association of Environmental and Resource Economists

Feb 14 Member of Programme Committee for 5th World Congress of Environmental and Resource Economists

Feb 09,11,12 Member of Programme Committee for 2009, 2010 & 2011 Annual Conferences of European Association of Environmental and Resource Economists

Feb 10 Member of Programme Committee for 2010 World Congress of Environmental and Resource Economists

Mar 07 - Dec 11 Member, Editorial Board, *Resource and Energy Economics*

May 07 Promotion and tenure recommendation for an Assistant Professor at a leading North American university

Feb 05, 07 Member of Programme Committee for 2005, 2006 & 2007 Annual Conferences of European Association of Environmental and Resource Economists

INTERNATIONAL CONFERENCE PRESENTATIONS SINCE 2006 (% = joint authored)

European Asscn. of Environmental & Resource Econs, Helsinki, Finland, June 2015

Association of Environmental & Resource Econs, San Diego, USA, June 2015

% "Directed technical change and the British industrial revolution"

European Asscn. of Environmental & Resource Econs, Toulouse, France, June 2013

% "Towards a more inclusive and precautionary indicator of global sustainability"

World Congress of Environmental and Resource Economists, Montreal, June 2010

% "The importance of tax versus trading versus free emissions share for climate policy"

Sustainable Use of Resources & Economic Dynamics, Ascona, Switzerland, June 2008

% "Comparing Genuine Savings and Ecological Footprint measures of global sustainability"

Sustainable Use of Resources and Economic Dynamics, Ascona, Switzerland, June 2006

"Neither the rock nor hard place: balancing the politics and the economics of emissions pricing"