

Curriculum Vitae

Full Name: Katharine Nora Farrell
Date of Birth: 04 May 1969
Citizenship: Dual – Ireland / USA
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Education (Summary)

Queen's University of Belfast, Belfast, BT7 1NN, Northern Ireland.
Institute of Governance, Public Policy and Social Research,
PhD, Ecological Political Economy
December 2005

Trinity College Dublin, Dublin 2, Ireland.
Department of Civil, Structural and Environmental Engineering,
MSc by Research, Environmental Engineering
November 2000

New School for Social Research, New York, NY, 10011, USA.
Robert J. Milano Graduate School of Management and Urban Policy,
MSc, Urban Policy Analysis and Management (honors)
May 1997: *Outstanding Graduate*

Rutgers University, New Brunswick, NJ, USA.
Douglass College,
BA, Political Science (honors) / 2 years of Biochemistry
May 1991: *Pi Sigma Alpha; Dean's List 1990 & 1991*

Languages

English (native speaker); German (fluent passive; high quality written and spoken); French (survival); Mathematics (algebra, statistics, econometrica, The Calculus); Basic Computer Programming

Professional Affiliations

International Society for Ecological Economics - *member*
European Society for Ecological Economics - *member*
African Society for Ecological Economics - *founding member, acting secretary*
Feasta: The Foundation for the Economics of Sustainability - *member, member of the executive committee 2000-2002, treasurer 2001-2002*
GoSD (Governance for Sustainable Development) Working Group - *member*
FP5 Thematic Network Sustainability Strategy - *contributor/ member*
Worldwide Virtual Network of Young Practitioners working on Science and Society Issues - *member, contributor*
Peer Reviewer: *Ecology and Society (formerly Conservation Ecology); Ecological Complexity; Capitalism Nature Socialism; Cambridge Review of International Affairs; Advances in Energy Studies*

Areas of Special Expertise

Academic Study

Ecological Economics and Environmental Valuation
Environmental Politics and Multi-Level Environmental Governance
Complexity Theory and far-from-equilibrium Physical Chemistry
Political Economy / Political Philosophy
History, Philosophy and Methodology of Science
Basic Chemistry and Biochemistry
Basic Hydrogeology
Waste Management and Contaminant Migration
Academic Lecturing

Methods and Approaches to Research

Political Theory and Philosophy
Macro Ecological Economic Analysis
Environmental Economic Analysis
Statistical Sampling and Data Analysis
Interview Based Qualitative Research and Ethnography
Comparative Qualitative Analysis
Legal Archive Researching
Data Manipulation and Reporting
Database Design and Management

Applied Skills: in Fundraising, Project Management and Policy Advice

Policy Analysis and Policy Advice Report Writing
Business Administration
Project Planning and Management
Training and Technical Skill Instruction
Client Care Services
Fund Raising (Direct and Grant-based)

Teaching Experience (Overview)

Helmholtz-Zentrum für Umweltforschung GmbH - UFZ

Marie Curie Intra-European Fellow (EU Contract EIF – 024688)
(January 2006 – March 2008)

- pastoral and instructional support to students conducting studies within the department;
- direct supervision of two students doing part time work for the ALIVE research in scientific and administrative supporting roles

Queen's University of Belfast, Belfast, BT7 1NN, Northern Ireland.

Gibson Institute for Land, Food and Environment

Visiting Research Fellow and Lecturer on Science for Sustainable Development
(January 2006 – December 2007)

- lecturing and logistical co-ordination for the Science strand of the MSc Course in Leadership for Sustainable Development.

Guest Instructor
(October 2005)

- lecturing and logistical co-ordination for the Science strand of the MSc Course in Leadership for Sustainable Development.

INTO Heritage in Schools Project, Irish National Teachers Organisation
Heritage Specialist
(January 2001 – December 2005)

- visiting primary schools throughout Ireland, to discuss the ancient and recent history of waste management in Ireland, the current Irish waste crisis and possible solutions for the future
- The lesson for my visits was that the waste we create depends upon the way we live our lives.
- Activities included storytelling, category assignment, independent worksheet exercises and group play through arts and crafts.

New School for Social Research, New York, NY, 10011, USA.
Robert J. Milano Graduate School of Management and Urban Policy
Teaching Assistant, Quantitative Methods of Statistical Analysis
(January 1996 – May 1997)

- post-graduate (MSc) level lecturing on statistical analysis;
- design, co-ordination and moderation of tutorials;
- training students in the use of statistical analysis software;
- remedial mathematics and computer skills instruction;
- grading of course-work and examinations.

Robert Wagner School, New York University (NYU), New York, NY, USA.
New Jersey Institute of Technology, Newark, New Jersey, USA.
Junior Research Scientist, Institute for Economic Analysis (NYU)
(January 1996 – January 1997)

- periodic undergraduate level lecturing on introductory macro- and micro-economics, in place of the Senior Scientist (Dr. Glenn-Marie Lange) for whom I was providing research support

Academic Publications

Books

Farrell, K.N., van den Hove, S., Luzzati, T. Ed. (2008) *Beyond reductionism: interdisciplinary research in ecological economics* Routledge, London: in preparation for publication within the series *Routledge Studies in Ecological Economics*.

Journal Articles and Book Chapters

- Farrell, K.N. and Mayumi, K. (2007) 'Nicholas Georgescu-Roegen's general theory of ecological economic production: an application to electricity futures' In Sergio Ulgiati Ed. *Advances in Energy Studies: Perspectives on Energy Future, Book of Proceedings 5th Edition*: In Press.
- Farrell, K.N. (2007) 'The Politics of Science: has Marcuse's New Science finally come of age?' In Andrew Biro Ed. *Critical Ecologies: The Frankfurt School and Environmental Politics in the 21st Century* University of Toronto Press, Toronto: Accepted.
- Farrell, K.N. (2007) 'Living with Living Systems: the co-evolution of values and valuation', *The International Journal of Sustainable Development and World Ecology* 14(1):14-26.
- Farrell, K.N. and Winkler, R. Eds. (2006) Complexity and Ecological Economics (Special Issue) *Ecological Complexity* 3(4).
- Farrell, K.N. and Winkler, R. (2006) 'Introduction: Complexity and Ecological Economics (Special Issue)' *Ecological Complexity* 3(4):1-10.
- Farrell, K.N. (2006) 'Reflections on International Political Economy and Global Environmental Governance' *Organisation & Environment* 19(2):270-274.
- Meadowcroft, J., Farrell, K.N., Spangenberg, J. (2005) 'Governance for Sustainable Development: Developing a framework for sustainability governance in the European Union' *International Journal of Sustainable Development* 8(1/2):3-11.
- Farrell, K.N., Kemp, R., Hinterberger, F, Rammel, C. and Ziegler, R. (2005) 'From *for* * to *Governance for Sustainable Development* in Europe – what is at stake for further research?' *International Journal of Sustainable Development* 8(1/2):127-150.
- Farrell, K.N. (2005) 'Different forms of Difference in Multi-level Governance for Sustainability: connections between gender and complexity theory perspectives' *Der Öffentliche Sektor-Forschungsmemoranden*, 1-2:9-19.
- Farrell, K.N. (2004) 'Recapturing Fugitive Power: epistemology, complexity and democracy' *Local Environment* 9(5):469-479.

Working Papers

- Farrell, K.N. (2007) 'Making Sense of Science in Society: considering the downstream consequences of upstreaming' *UK Economic and Social Research Council Workshop Report*, ESRC Science in Society Programme, Saïd Business School, University of Oxford, Oxford, UK: In Press.
- Farrell, K.N. and Ravetz J. R. Eds. (2005) *Governance of Science: the new politics of science in historical perspective* Institute of Governance, Public Policy and Social Research Working Paper QU/GOV/2/2005.

Farrell, K.N. (2004) *Living with living systems: exosomatic instruments and the evolution of homo sapiens* Governance for Sustainable Development (GoSD) Working Paper No. 3 (<http://www.gosd.net/pdf/gosd-wp3.pdf>).

Book Reviews

- Farrell, K.N. (2005) 'Ecological and Environmental Economics: Selected Issues and Policy Responses, Clem Tisdell (2003) Edward Elgar: Book Review' *Environmental Politics* 14(5):723-724.
- Farrell, K.N. (2005) 'Environmental Planning in the Netherlands: Too Good to be True, From Command-and-Control Planning to Shared Governance, Gert de Roo (2003) Ashgate: Book Review' *Environmental Politics* 14(5):733-734.
- Farrell, K.N. (2005) 'Review Essay: Complexity, Organisation and Change, Elizabeth McMillan (2004) Routledge' *Organisation & Environment* 18(1):124-127.
- Farrell, K.N. (2004) 'Critical Political Ecology, Tim Forsyth (2003) Routledge: Book Review' *Environmental Values* 13(3):403-406.
- Farrell, K.N. (2004) 'Organisations, Policy, and the Natural Environment: Institutional and Strategic Perspectives, Andrew J. Hoffman and Marc J. Ventresca (2002) Stanford University Press: Book Review' *Environmental Politics* 13(2):503-505.
- Farrell, K.N. (2003) 'Waste in Ecological Economics, Katy Bisson and John Proops (2002) Edward Elgar: Book Review' *Environmental Politics* 12(4):154-155.
- Farrell, K.N. (2003) 'Review Essay: Green States and Social Movements, John S Dryzek, David Downes, Christian Hunold and David Schlosberg with Hans-Kristian Hernes (2003) Oxford University Press' *Organisation & Environment* 16(3):398-400.
- Farrell, K. (1994) 'The Ecology of Commerce, Paul Hawken (1994) Harper Collins: Book Review' *Capitalism Nature Socialism* 5(4):132-133.

Papers Submitted / Under Peer Review

- Farrell, K.N. (2007) 'The Politics of Science Concerning Sustainable Development: Marcuse's new science in the 21st Century' submitted to *Capitalism Nature Socialism*.
- Farrell, K.N., Martienssen, M., Armstrong, J.E. and Schirmer, M. (2007) 'Coping with Fundamental Complexity: taking up long term management of mega-contamination sites as a socio-ecological systems management challenge' about to be submitted to *Ecology & Society*.

Conference Papers

- (2007 with James E. Armstrong, Marion Martienssen and Mario Schirmer)
'Managing mega-contamination sites: addressing fundamental complexity by shifting orientation away from management and control, toward coping with transition' paper presented at the 7th biennial conference of the *European Society for Ecological Economics, "Integrating Natural and Social Sciences for Sustainability"*, Helmholtz Centre for Environmental Research, UFZ, Leipzig, Germany, 5-8 June 2007.

- (2007 with Bertrand Hamaide, George Hutchinson and Danny Campbell) ‘Taking Existence Value as a Variable: an exercise in modelling the impact of difference between economic and ecological existence values in ecological economic analyses’ paper presented at the 7th *biennial conference of the European Society for Ecological Economics, “Integrating Natural and Social Sciences for Sustainability”*, Helmholtz Centre for Environmental Research, UFZ, Leipzig, Germany, 5-8 June 2007.
- (2007 with Sybille van den Hove and Tommaso Luzzati) ‘What lies beyond reductionism? taking stock of inter-disciplinary research in ecological economics’ paper presented during the Poster Session at the 7th *biennial conference of the European Society for Ecological Economics, “Integrating Natural and Social Sciences for Sustainability”*, Helmholtz Centre for Environmental Research, UFZ, Leipzig, Germany, 5-8 June 2007.
- (2006) ‘The Shape of things to Come: a cartographic approach to understanding the complexity of environmental conflicts in Südraum Leipzig’ paper presented at the *Ninth Biennial Conference of the International Society for Ecological Economics*, Delhi, India, 15-18 December 2006.
- (2006) ‘Ecosystem Valuation and the Worth of Priceless Services: a constructive critique of pragmatic arguments used to defend monetary valuations’ paper presented at the *Ninth Biennial Conference of the International Society for Ecological Economics*, Delhi, India, 15-18 December 2006.
- (2006 with Kozo Mayumi) ‘Time, Tradition and Ecological Economic Production Functions: a detailed review and minor extension of Georgescu-Roegen’s flow/fund model’ paper presented at the *Ninth Biennial Conference of the International Society for Ecological Economics*, Delhi, India, 15-18 December 2006.
- (2006) ‘The Politics of Science Concerning Sustainable Development: a 21st century reevaluation of Habermas’ 1971 critique of Marcuse 1964’ invited paper presentation given at the Symposium *Critical Ecologies: The Frankfurt School and Environmental Politics in the 21st Century* convened by the Canada Research Chair in Political Ecology, Acadia University, Nova Scotia, Canada, October 20-21 2006.
- (2006 with Kozo Mayumi) ‘Time and Tradition in the Works of Nicholas Georgescu-Roegen’ paper presented as a poster at ‘*Perspectives on Energy Future*’ 5th *Biennial International Workshop: Advances in Energy Studies*, Porto Venere, Italy, 12-16 September 2006.
- (2006) ‘Bitter Fields and better Fellows: the roles of science and society in creating and resolving groundwater contamination problems in Bitterfeld, Germany’ paper presented at the *Annual Conference of the European Association for Study of Science and Technology ‘Reviewing humanness: bodies, technologies and spaces’*, Lausanne, Switzerland, 23-26 August 2006.
- (2005) ‘Different forms of Difference in Multi-level Governance for Sustainability: an extension of arguments presented in an earlier paper’ paper presented at the *6th Open Meeting of the Human Dimensions of Global Environmental Change Research Community*, University of Bonn, Germany, 9-13 October 2005.

- (2005) 'Inter-disciplinary Deliberative Democracy: a theory of Collective Ecological Management' paper presented at the *6th Open Meeting of the Human Dimensions of Global Environmental Change Research Community*, University of Bonn, Germany, 9-13 October 2005.
- (2005 with Fred Luks) 'See No Evil, Hear No Evil, Speak No Evil: Eco-Policy, Eco-Polity, Eco-Politics' paper presented at the *International Sociological Association - Research Committee 24: Environment and Society conference Double Standards and Simulation: Symbolism, Rhetoric and Irony in Eco-politics*, Bath UK, 1-4 September 2005.
- (2005 with Rutger van der Brugge) 'Complex Organisational Purposes and Personal Integrity: a look into relationships between management of whole and partial system purpose in organisations of human actors' paper presented at the *Finland Futures Research Centre conference, Foresight Management in Corporations and Public Organisations - New Visions for Sustainability*, Helsinki, Finland, June 2005.
- (2005) 'On the Governance by Science on Governance for Sustainability' paper presented at the *European Society for Ecological Economics biennial conference Science & Governance - The Ecological Economics Approach*, New University of Lisbon and Gulbenkian Foundation, Lisbon, Portugal, 14-17 June 2005.
- (2005) 'Governance of Science – Perspectives, Processes, Products and Prospects' paper presented at the *European Society for Ecological Economics biennial conference Science & Governance - The Ecological Economics Approach*, New University of Lisbon and Gulbenkian Foundation, Lisbon, Portugal, 14-17 June 2005.
- (2004 with Arild Vatn) 'Exosomatic Instruments of Production and the Human Species: historical and normative epistemological foundations of ecological economics' paper presented at the *8th biennial conference of the International Society for Ecological Economics* Montreal, Canada, 11-14 July 2004.
- (2004) 'Who decides who decides: hydroponics and meadow flowers' paper presented at the *8th biennial conference of the International Society for Ecological Economics* Montreal, Canada, 11-14 July 2004.
- (2004) 'Living with living systems: exosomatic instruments and the evolution of homo sapiens' paper presented as part of the Special Session - Governance for Sustainable Development: Perspectives from Europe within the *8th biennial conference of the International Society for Ecological Economics* Montreal, Canada, 11-14 July 2004.
- (2003) 'Complexity and Democratic Theory: Building a new Cosmopolis for the 21st century' paper presented at the *conference Complexity, Ethics and Creativity*, London School of Economics, 17-18 September 2003.
- (2003) 'Recapturing Fugitive Power: An Exploration of the Relationships between Bureaucracy, Technocracy, Democracy, Public Consultation and Legitimacy in Environmental Governance' paper presented to the *6th Nordic Conference on Environmental Social Sciences (NESS)*, Turku /Åbo, Finland, 12-14 June 2003.
- (2003) 'How Much for your Wife? A Critique of the Pragmatic Assigning of Monetary Values to Ecological Phenomena' paper presented at the *53rd Annual Conference of the Political Studies Association*, University of Leicester, UK, 15-17 April 2003.

- (2003) ‘How Much for your Wife? A Critique of the Pragmatic Assigning of Monetary Values to Ecological Goods and Services’ paper presented at *Frontiers2: the 7th Bi-Annual Conference of the European Society for Ecological Economics*, Tenerife, Spain, 11-16 February 2003.
- (2002) ‘Environmental Management Decision-Making in Ireland: Waste Management Planning and the Threat of the Citizen Juries’ paper presented at the *Annual Conference of the Political Studies Association of Ireland*, Belfast, Northern Ireland, 18-20 October 2002.
- (2002) ‘Redefining Democracy: A Discussion on the Relationship between Democratic Forms of Governance and the Principles of Environmental Politics’ lecture presented at the *Green Living Fair*, The Wildfowl and Wetlands Trust Castle Espie, Co Down, Northern Ireland, 8 September 2002.
- (2001) ‘The Politics of Pigslop’ paper presented to the conference ‘*Ensuring a Sustainable Future for Urban Environments*’, Industry Centre, University College Dublin, Dublin, Ireland, 12 December 2001.

Non Academic Publications

- Technical Companion Document to the Irish Alternative Country Report *Telling it like it is*. Prepared for and presented to the Johannesburg World Summit on Sustainable Development, Earth Summit Ireland, Dublin, 2002.
- ‘How our looming waste crisis can be solved’ *The Sunday Business Post: Comment & Analysis* 12 August, 2001.
- ‘Waste Not, Want Not’ *Business & Finance* 22nd-28th March, 2001.
- ‘Labour, IBEC call for national waste authority’ *The Sunday Business Post* 14 February, 2001.
- ‘Landed in a mess of our own making’ *The Sunday Business Post* 14 January, 2001.
- ‘Ireland needs one waste plan not ten’ *The Sunday Business Post: Comment & Analysis* 19 November, 2000.
- ‘Persian Gulf: whose war is it anyway?’ *Rutgers Review* 16 October, 1990.

Awards and Grants

- 2006-2008 European Union Marie Curie Intra-European Fellowship: Accountability and Legitimacy of Governance Institutions that support Viable Environments (ALIVE) – EU contract EIF 024688 (€142,351.34).
please see Academic Career Development and Postgraduate Education (Detail), below, for particulars
- 2006 Japan Society for the Promotion of Science (JSPS) / Royal Society Short Term Post-Doctoral Award “Time and Tradition in the Works of Nicholas Georgescu-Roegen”, supporting all costs associated with a three month research trip to Japan to explore and elaborate, in collaboration with Prof. Kozo Mayumi, relationships between time, production and tradition in the works of Nicholas Georgescu-Roegen (¥ 1;419;000 / c. US\$14,000).

- 2006 British Academy Small Grant Award “Time and Tradition in the Works of Nicholas Georgescu-Roegen” – This award was also granted to support the above mentioned research but was returned to the funder to avoid double funding, in preference for the JSPS grant, based on the preferences of the host researcher, Prof. Mayumi (STG £ 7,050).
- 2002-2005 UK Support Programme for University Research Scholarship: a three-year full academic scholarship including fees, facilities and living stipend (STG £ 8,000-9,000 per annum living stipend)
- 2005 ESRC Workshop Grant: this grant supported the organisation and execution of a international workshop entitled *Making Sense of Science in Society: considering the downstream consequences of upstreaming*, which was held at the Saïd Business School, University of Oxford, Oxford UK. The purpose of the workshop was to explore the downstream (democratic legitimacy) consequences associated with upstreaming public participation in scientific research and science policy making – the workshop summary report included contributions for a wide range of internationally established experts in this field of study and recommendations for further research (apprx. STG £ 6,000 including services in kind).
- 2005 National Science Foundation, USA: this grant supported attendance at the *6th Open Meeting of the Human Dimensions of Global Environmental Change Research Community*, Bonn, Germany, October, 2005 (c. US \$250).
- 2005 William and Betty MacQuitty Travel Scholarship to attend the *6th ESEE biennial conference* in Lisbon, Portugal and to meet with researchers at the Ecoman Centre, Lisbon, Portugal, June 2005 (c. STG £ 1,000).
- 2003 Norwegian Research Council Visiting Scholar Grant: this grant supported all costs associated with a one month visit to work with Prof Arild Vatn at the Agricultural University of Norway; the research focused on the role of institutions in shaping of environmental value preferences, October, 2003 (c. NK 17,000 / . c. US\$3,000).
- 2003 QUB Alumni Fund, Travel Scholarship to attend the *6th Nordic Environmental Social Sciences Conference*: Turku, Finland, June, 2003. (c. STG £ 750).
- 2003 EEC Young Researchers Grant to Attend the *European Society for Ecological Economics conference Frontiers2*: Tenerife, Spain, February, 2003 (c. Euro 500).

Invited Lectures

(2007)

- ‘Inter-disciplinary Deliberative Democracy: a theory of Collective Ecological Management’ presented at the Dutch Research Institute for Transitions (DRIFT), Erasmus University Rotterdam, the Netherlands. 12 February, 2007.
- ‘21st Century Science: Rising to the Challenge’ Visiting Expert at the European Commission - Joint Research Centre, Institute for the Protection and Security of the Citizen, Knowledge Assessment Methodologies, Ispra. Italy 21-23 March, 2007.

(2006)

‘Towards a Sustainable Built Environment: some potential applications of Ecological Economics to support European policy making’ presented to the FORESCENE [FP6 8.1 project - Development of a Forecasting Framework and Scenarios to Support the EU Sustainable Development Strategy] Expert Workshop on Infrastructure / Built Environment, Budapest, Hungary. 26-27 October, 2006.

‘The Politics of Science Concerning Sustainable Development: a 21st century reevaluation of Habermas’ 1971 critique of Marcuse 1964’, invited presentation to the Symposium *Critical Ecologies: The Frankfurt School and Environmental Politics in the 21st Century* convened by The Canada Research Chair in Political Ecology, Acadia University, Nova Scotia, Canada. 20-21 October, 2006.

(2005)

‘Sustainable European Multi-Level Governance: lessons and opportunities in the European Sustainability Strategy’ public lecture given at the invitation of the Minister of Environment for Slovenia, Ljubljana, Slovenia. 23 November, 2005.

‘Prospects and Possibilities for future European Governance Structures for Sustainable Development’ at the FP5 Thematic Network Sustainability Strategy conference *Towards a Synthetic Model of Sustainability Politics* Brussels, Belgium. 19-22 June, 2005.

Keynote Lecture, ‘Governing Science’s Governance of Sustainable Development: the politics and practice of sustainability science in a post normal context’ at the Baltic University Programme conference *University Education for Sustainable Development in the Baltic Sea Region*, Gdansk, Poland. 13-16 March, 2005.

Keynote Contribution “Interdisciplinary methods and the integration of ecological, political and economic scales: when the language of math becomes a unitless scaler and some related consequences” presented to the electronic conference *Landscape scale biodiversity assessment, the problem of scaling* (<http://www.nbu.ac.uk/biota/e-conference.htm>), hosted by the FP5 Thematic Network BioPlatform: European Platform for Biodiversity and The Centre for Ecology and Hydrology, UK. 7-23 March, 2005

(2003)

‘How can *homo sapiens* build better niches? the species nature didn’t specify’ presented to the Peace Studies Programme - Università degli Studi di Pisa, Pisa, Italy. 02 December, 2003.

‘Complexity and Democratic Theory: Building a new Cosmopolis for the 21st century’ presented as a Science and Philosophy Seminar, Center for the Study of Sciences and Humanities, The University of Bergen, Bergen, Norway. 21 October, 2003.

Events Organised

- ISEE2008 NAIROBI: Applying Ecological Economics for Social and Environmental Sustainability*, Nairobi, Kenya, 7-11 August 2008. Member of the Scientific and Fundraising Committee; Secretary for the host society, the African Society for Ecological Economics.
- Ghosts in the Machine*, Leipzig, 29-30 November, 2007: co-organiser: two day seminar on strategies for taking into account the behaviours and contributions of intentional human political actors within integrative ecological economic models.
- Integrating Natural and Social Sciences for Sustainability: 7th International Conference of the European Society for Ecological Economics*, Leipzig, Germany, 5-8 June 2007. Member of the Local Organising and Scientific Committees
- Making Sense of Science in Society: considering the downstream consequences of upstreaming*, ESRC Workshop held at the Saïd Business School, University of Oxford, Oxford, UK, 25 January, 2006 (please see Awards and Grants, above, for details of the event).
- Complexity, Knowledge and Ethics*, Invitational Lecture given by Professor Paul Cilliers from the Department of Philosophy, University of Stellenbosch, South Africa, held at Queen's University of Belfast, Northern Ireland, 9 September, 2005. Initiator and main co-ordinator for scientific content and logistics of the event; the lecture and discussion session were funded jointly by the Queen's University of Belfast Institutes of: Governance, Public Policy and Social Research; Cognition and Culture; and Irish Studies.
- Complexity, Science and Society*, University of Liverpool, UK, 11-14 September, 2005, Ecological Economics Subject Co-ordinator. Scientific co-ordinator of the Ecological Economics international scientific committee; administrative co-ordinator for Ecological Economics session logistics including support for international participants; Co-Editor of the Special Issue *Complexity and Ecological Economics* appearing in the journal *Ecological Complexity* comprised of papers selected from the session.
- Sustainable Development for the 21st Century* Institute of Governance, Public Policy and Social Research (IGPPSR), 16 May, 2005: primary organiser, in collaboration with Professor Melvin Dubnick and Dr John Barry; this one day conference consisted of two international visiting lectures, one by Dr Ralph Winkler (Germany/UK) and one by Prof. Frank Fischer (USA/Germany), a discussion session and the launch of the IGPPSR Working Paper QU/GOV/2/2005 *Governance of Science*.
- Governance of Science: The new politics of science in historical perspective* (Lecture and Seminar/Workshop 9-10 March, 2004: sole scientific and main logistical co-ordinator for the event, co-sponsored by Queen's University of Belfast's (QUB): Centre for Sustainability; Institute of Governance, Public Policy and Social Research; Graduate School of Education; and School of Politics and International Studies. This two day seminar and workshop included participation from environmental policy practitioners, QUB staff and students from a range of natural and social science faculties and members of Belfast based environmental NGOs. The event was launched by the Director of Environmental Policy from the Department of the Environment in Northern Ireland and included a keynote address by Dr Jerry Ravetz (UK), lecture

presentations by Dr Mario Giampietro (Italy) and Dr Fred Luks (Germany) and a brainstorming session on potential science/policy collaboration projects.

QUB Climate Change Working Group, co-ordinator. This joint initiative of the Queen's University Belfast Centre for Sustainability and Environmental Governance and the Queen's University Environmental Science and Technology Research Centre (QUESTOR) was convened to provide expert commentary to the Department of Environment in Northern Ireland Executive on the 2005 UK Climate Change Programme, with particular emphasis on the devolved Northern Ireland perspective.

Defining Governance Initiative, researcher and co-organiser. This initiative at the Institute of Governance, Public Policy and Social Research served to develop a database of governance definitions and a working definition of governance, which was adopted as a scientific and organisational referent for the Institute

Academic Career Development and Postgraduate Education (Detail)

Helmholtz Centre for Environmental Research - UFZ

ÖKUS - Division of Social Sciences

Economics / Urban and Environmental Sociology

Permoserstr. 15,

D-04318 Leipzig, Germany.

Marie Curie Intra-European Fellow (EU Contract EIF – 024688)

Project Title: ALIVE – Accountability and Legitimacy of Governance Institutions that support Viable Environments

(January 2006 – March 2008)

The aim of the ALIVE research is to make use of the wealth of empirical environmental management data and analyses available at the UFZ, in order to develop a better picture of the relationships between the various perspectives that contribute to local, regional, national and EU level environmental governance and land use policy decision-making. The policy oriented and inter-disciplinary character of many UFZ research projects including collaborations between natural and social scientists provides an exceptional foundation for understanding how these various (often disparate) perspectives co-operate in the work of responding to environmental management challenges such as flood management, brownfield rehabilitation and contaminated land remediation.

The ALIVE research uses a data encoding system designed to identify (1) the multi-level governance positioning and (2) the epistemological perspectives of the various actors involved in selected inter-disciplinary policy oriented research projects that have been conducted at the UFZ. In particular, the research focuses on land use / environment transition and transformation processes in Sachsen and Sachsen-Anhalt areas over last 50-100 years. The research looks at how these actors contributed to the debates and decisions surrounding lignite mining and petrochemical manufacture in the region. By employing a data encoding system based on epistemological categories, the research aims to compare the relative influence of scientific and policy actors collaborating in the development of environmental policy. Analysis of these data will eventually be combined with traditional institutional analysis, based within a multi-level governance frame, in order to develop recommendations regarding the

constitution of the EU, reflecting on the abandoned Constitutional Treaty and the recently proposed new Treaty among Heads of State.

Data collection procedures include archival study of existing raw data from the UFZ projects and review of related reports, interviews with key actors and remembers (including UFZ scientists), review of electoral records, laws, quasi-legal policy documents, print news media and official transcripts of decision event. The aim of these procedures is to record (1) the composition and content of the formal and informal debates surrounding the case study issues, (2) the actors involved in these debates and (2) the multi-level governance structures that supported the decision-making processes relating to each project issue.

Responsibilities include: Organisation and administration of all aspects of the research project, including report writing and budget and time management; research on and implementation of all ALIVE research methods – interviews, ethnography, text analysis, data management and manipulation; development of new ecological political economy theory; preparation and submission of publications, preparation and submission of grant proposals; pastoral and instructional support to students conducting studies within the department; direct supervision of two students doing part time work for the ALIVE research in scientific and administrative supporting roles; presentation of lectures at conferences and within the department; disciplinary and inter-disciplinary collaboration in the design and execution of academic research.

Gibson Institute for Land, Food and Environment

Queen's University of Belfast, Belfast, BT7 1NN, Northern Ireland.

*Visiting Research Fellow and Lecturer on Science for Sustainable Development
(January 2006 – December 2007)*

The Gibson Institute is an inter-disciplinary research that focuses on supporting ecologically and economically sustainable agricultural land use in Northern Ireland. It is based in the School of Biological and Medical Sciences.

Responsibilities include: Visiting Lectures on Environmental Governance and Inter-disciplinary Research Methods; collaboration with Gibson Institute staff in the evaluation of ongoing research results; preparation of collaborative academic publications and development of research proposals and applications for funding; lecturing and logistical co-ordination for the Science strand of the MSc Course in Leadership for Sustainable Development.

Queen's University of Belfast, Belfast, BT7 1NN, Northern Ireland.
Institute of Governance, Public Policy and Social Research,
December 2005: PhD, Ecological Political Economy

Making Good Decisions Well: A Theory of Collective Ecological Management

The point of departure for this thesis is a critique of the practice of assigning monetary values (e.g. shadow pricing, contingent valuation, travel costs measures, etc.) to ecological phenomena (monetary valuation) as a tool for achieving policy relevance for ecological considerations (e.g. via cost-benefit analysis, Pareto optimality, etc.). This critique employs a set of analytical criteria indicating necessary but not necessarily sufficient conditions that must be met in order to speak about the economic worth of ecological phenomena. These criteria are based on a description of ecological phenomena as living systems, and explicitly include human beings, communities and social institutions, as parts of a complex, multi-dimensional system of life on earth, comprised of multiple, inter-dependent, life related sub-meso- meta- and supra- systems. It is argued that due to the specific characteristics of living systems, it is inappropriate and inaccurate to represent their economic worth through monetary valuations (the traditional analytical critique of monetary valuation). This argument is then extended, to develop an analytical critique of the pragmatic defence of monetary valuation. It is argued that because monetary valuation is never suitable for articulating ecosystem values, the practice explicitly undermines its own purpose, by creating the illusion of 'taking the environment into account' while failing to provide the required data. Deliberative democratic discourse is evaluated as an alternative process for articulating the economic value of ecological phenomena and is critiqued using the same living systems criteria. Finally, employing complex systems theory and cognitive psychology and drawing from works on ecological economics, environmental politics, post-normal science, democratic theory and philosophy of the mind, of science and of politics, a speculative normative theory of epistemologically complex inter-disciplinary deliberative democracy, through collaborative narrative construction is proposed as a means toward democratically legitimate, epistemologically robust, cognitively coherent procedures for articulating the economic value of priceless ecological phenomena.

Additional events attended while at Queen's University of Belfast

- Invited participant at the UK Meeting of the EU Thematic Network
Sustainability Strategy 'Sustainable Consumption and Production: is it
real, does it matter and what is the role of governance', Stockholm
Environment Institute, University of York, 17–19 March, 2005.
- Science and Society Forum 2005*, European Commission, Directorate General
Research, Brussels, Belgium, 8-10 March, 2005.
- 2004 Berlin Conference on the Human Dimensions of Global Environmental
Change: "Greening of Policies – Interlinkages and Policy
Integration"*, Freie Universität Berlin, Forschungsstelle für
Umweltpolitik, Berlin, Germany, 3-4 December, 2004.
- Liphe4 Scientific Society Summer Workshop on *Integrated Analysis of
Sustainability Scenarios*, (hosted by the Faculty of Interdisciplinary
Studies (IFF) University of Klagenfurt), Deutschlandsberg, Austria,
20-27 August, 2004.

Governance for Sustainable Development (GoSD) Working Group meeting,
Vienna, Austria, 13-15 December, 2003.

Interfaces between Science & Society: collecting experiences for good practice (reporter for the session on public participation, science and decision), European Commission, Joint Research Centre, Milan, Italy, 27-28 November, 2003.

The European Consortium for Political Research (ECPR) Second Conference, Marburg, Germany, 18-21 September, 2003.

Environmental Governance and Civil Society: Challenges and Opportunities for Europeans, European Commission, Directorate General Environment, Brussels, Belgium, 27-28 January, 2003.

Trinity College Dublin, Dublin 2, Ireland.

Department of Civil, Structural and Environmental Engineering,

November 2000: MSc by Research, Environmental Engineering

Cycles of Waste Production and Consumption: An Ecological Economic Study of Municipal Solid Waste Recovery Opportunities in Ireland

This was a cross-discipline dissertation, which, by integrating tools from the social and physical sciences, developed practicable policy recommendations for managing Ireland's growing municipal solid waste stream. The dissertation employed life-cycle assessment, ecological footprint analysis, eco-toxicology, policy analysis and Input Output matrix data analysis. The dissertation was intended to bridge a gap in the discourse on environmental economics and environmental policy and was presented as a critique in practice of conventional cost benefit and rational choice policy analysis instrumentation. The main aim of the thesis was to demonstrate that practicable policy recommendation concerning environmental planning and management can be developed without resorting to single metric, commensurating analytics.

The Irish Environmental Protection Agency requested a copy of this dissertation, which is lodged in their head office library.

Adjudicator comments

an important topic

useful input to an area that has not had sufficient exploration in the past

adept at considering the practical adaptation of a theoretical approach

useful basis for further research

well presented and well argued

Examination Results

In order to proceed with study, civil engineering research degree candidates were required, by the Professor, to complete two technical MSc examinations. Both examinations were completed to the satisfaction of the department during my first year of study.

New School for Social Research, New York, NY, 10011, USA.

Robert J. Milano Graduate School of Management and Urban Policy,
May 1997: MSc, Urban Policy Analysis and Management

Grade Point Average: 3.9 cumulative

Graduate Records Examination Results: 700 analytical,
1890 cumulative

Awards, Honours and Externally Funded Activities

May 1997 Jacob M. Kaplan Outstanding Graduate Award
1996-1997 University Scholarship for Academic Excellence
1996 4th Biennial Conference of the International Society for
Ecological Economics, Boston, MA, July 1996.

Assistanceships and other Related Work

Mar. 1997 - Research Assistant, Milano Graduate School Technology
June 1997 Initiative, Robert J. Milano Graduate School of Management
and Urban Policy, New School for Social Research, New York,
NY, USA.

Responsibilities included: identifying and developing software to assist students and staff executing applied mathematics based analyses; development of an interactive mathematics tutorial software program.

Jan. 1997 - Policy Researcher, Office of Environmental Planning and
May 1997 Assessment, New York City Department of Environmental
Protection (NYC-DEP), Queens, NY, USA.

Responsibilities included: detailed study of selected policy reform suggestions; interviewing DEP staff and clients; comparative study of federal, state and city environmental protection law; review, analysis and reporting of research results; development of formal policy recommendations for presentation to the DEP Commissioner.

Jan. 1996 - Teaching Assistant, Quantitative Methods of Statistical
May 1997 Analysis, Robert J. Milano Graduate School of Management
and Urban Policy, New School for Social Research, New York,
NY, USA.

Responsibilities included: graduate level lecturing on statistical analysis; co-ordination and moderation of tutorials; training students in the use of statistical analysis software; remedial mathematics and computer skills instruction; grading of course-work and examinations.

June 1996 - Graduate Research Assistant to the Program Director,
Jan. 1997 South Africa Partnership Program, Graduate Faculty, New
School for Social Research, New York, NY, USA.

Responsibilities included: collection, aggregation, analysis and reporting of comparative data concerning relationships between income, race and third level education in South Africa and Israel.

Jan. 1996 - Junior Research Scientist, Institute for Economic
Jan. 1997 Analysis, Robert Wagner School, New York University, New
York, NY, USA.

Responsibilities included: undergraduate level lecturing on introductory macro- and micro-economics; data manipulation; design and execution of time series/group aggregated linear and non-linear statistical analysis; production of statistical and analytical reports.

Additional Career Development

INTO Heritage in Schools Project, Irish National Teachers Organisation,
(In Co-operation with the Heritage Council), 35 Parnell Square, Dublin 1.

Heritage Specialist

(January 2001 – December 2005)

The Heritage in Schools Project is a joint initiative between the Heritage Council and the Irish National Teachers Organisation. The scheme brings together primary school students with experts on Irish environmental and built heritage, raising awareness of Ireland's natural and cultural heritage while providing an innovative platform for organising general primary education instruction. Having researched Ireland's waste management history extensively, as a Heritage Specialist I visited primary schools throughout Ireland, to discuss the ancient and recent history of waste management in Ireland, the current Irish waste crisis and possible solutions for the future. The lesson for my visits was that the waste we create depends upon the way we live our lives. Activities included storytelling, category assignment, independent worksheet exercises and group play through arts and crafts.

Earth Summit Ireland (ESI)

ESI is an association of Irish Environmental Non-Governmental Organisations (ENGOS) that was brought together exclusively for this project: ESI organisations can be contacted through Pillar 3 (ENGOS) of Comhar – The Irish National Sustainable Development Partnership, 17 St. Andrew Street, Dublin 2.

Research Co-ordinator

(April 2002 – September 2002)

As part of Ireland's preparation for the World Summit on Sustainable Development (WSSD) (Johannesburg, South Africa, 2002) the Irish Government, at the suggestion of the United Nations Environment Programme, provided funding for ESI to conduct an independent review of Ireland's progress toward meeting the Rio Earth Summit

targets. The project was co-ordinated through committee and culminated in a report “Telling it Like it is: ten years of unsustainable development in Ireland” and a companion analytical document. Both documents were submitted to the United Nations and to the Irish Government and made available first at the WSSD in Johannesburg and afterwards to the general public.

Responsibilities included: collating available data; collecting additional data; reviewing all primary Rio Agreements, all pursuant Irish policy and core pursuant European Union policy; interviewing; researching Irish environmental law; conducting statistical and policy analysis; preparing data and analyses for inclusion in final reports; participation in layout and editing.

GreenCottage Consulting, 16 Daniel Street, Dublin 8, Ireland.

*Environmental Policy Analyst and Business Management Consultant
(October 2000 – September 2002)*

Areas of Operation

Waste Management & Minimisation; Regulatory Compliance; Pollution Prevention through Process Improvement; Environmental Management Strategy Development and Project Planning; Statistical Sampling & Analysis; Change Management and Project Implementation; Policy Analysis

Clients

Greencore Group plc. and its subsidiaries; The Irish Labour Party; Feasta

Repak Ltd., Clondalkin, Dublin 22.

Statistical Co-ordinator

Repak Ltd. is a PRO-Europe (Packaging Recovery Organisation Europe) affiliated company and holds the “Green Dot” copyright for Ireland. It is a voluntary, industry lead, government approved waste packaging recovery scheme. Packaging statistics reported to Repak by its members are used to assess member fees, which constitute the company’s core revenue stream. Core company activities are packaging data administration and funding the recycling of Irish waste packaging. Member packaging statistics also form the basis for Repak’s regular reporting to the Irish Government, which in turn contributes to Irish government packaging and waste packaging data reporting to the European Union.

*Statistical Co-ordinator, Statistics and Finance Department
(August 1999 - October 2000)*

Responsibilities included: Company Policy and Management, team member; Statistical Support Services and Administration, team leader; key client support services; liaison to the Environmental Protection Agency; design of membership fee assessment and invoicing calculations; supervision of fee assessment and invoicing; statistical analysis and reporting.

*Data Manager and Statistician (part-time)
(November 1998 - July 1999)*

Responsibilities included: creation of information management system for the administration of members' statistical submissions; development and implementation of membership training courses on statistical reporting; completion of statistical calculation software project already underway at the time of hire; administration of all statistical data and related materials; design of statistical submission forms and guidance documents; provision of member statistical support services; Local Area and Dialogue Network Administration.

Department of Civil, Structural and Environmental Engineering,
Trinity College, Dublin 2, Ireland.

Full-time Student, August 1997 - November 1998
please see Academic Career Development and Postgraduate Education
(Detail), above, for further details

Robert J. Milano Graduate School of Management and Urban Policy,
New School for Social Research, 66 West 12th St. New York, NY, 10011, USA.

Full-time Student, March 1996 – June 1997
please see Academic Career Development and Postgraduate Education
(Detail), above, for further details

New School for Social Research, 66 West 12th St. New York, NY 10011, USA.
Fundraising Researcher, Office of Development and Alumni Relations
(August 1995 - March 1996)

Responsibilities included: design, development and administration of a relational database of private university donor profiles; researching, writing and updating career and biographical profiles of prospective and continuing donors to the university.

Telefund Supervisor (full-time), Office of Development and Alumni Relations
(September 1994 - July 1995)

The New School is a unique university, comprising several completely independent institutions, each with an Alumni Association Annual Fund. The Telefund was responsible for the initial and annual Alumni subscriptions for all five schools of the university through telephone based fundraising. As Telefund Supervisor I was responsible for all daily operations. As my academic workload increased in 1995, I moved to a post that allowed more time for study and degree related activities.

Responsibilities included: liaison to university academic divisions; training of Trainers and Telefund Callers; supervision of administrative and calling activities; setting and achieving daily, weekly and monthly fund-raising targets; supervision of fund-raising-call script writing and revision.

Telefund Supervisor (part-time), Office of Development and Alumni Relations
(September 1993 - August 1994)

Responsibilities included: development of performance and pledge-fulfilment tracking systems; administration of daily Telefund activities; supervision of administrative and calling activities; staff development, training and goal setting with Telefund Callers; script writing, including test calling; co-ordination of recruitment.

New Jersey Environmental Federation (NJEF), New Brunswick, NJ, USA.

NJEF is a citizen lobby organisation, advocating state and federal legislation to preserve and safely manage environmental resources. All funding for NJEF's work was secured directly through private citizen donations. The phone canvass operation served as a core means for communicating with membership about NJEF activities and as a primary funding resource.

Senior Phone Manager (promotion)
(November 1992 - July 1993)

Responsibilities included: Phone Canvass Management, team member; staff development and training of Phone Managers; liaison to Lobbyist and Organisers; supervision of all telephone fund-raising activities; start-up support for non-profit fund-raising projects throughout the United States.

Phone Manager (promotion)
(November 1991 - November 1992)

Responsibilities included: Phone Canvass Management, team member; staff development and training of Trainers; supervision of training and administrative teams; periodic lead phone canvass operator; start-up and management of an off peak fund-raising shift; fund-raising-call script writing; on call support for Trainers during calling shifts; start-up support for non-profit fund-raising projects throughout the United States.

Trainer (promotion)
(August 1990 - November 1991)

Responsibilities included: staff development and training; lead phone canvass operator; administration of daily crew records; preparation and presentation of daily pre-call-session training; fund-raising-call scripts writing and call testing; on call support for Callers during calling shifts; start-up support for non-profit fund-raising projects throughout the United States.

Caller
(April 1990 - August 1990)

Responsibilities included: daily phone-fund-raising as a phone canvass operator; achievement of daily and weekly phone fund-raising standards.

Undergraduate, Secondary and Primary Education

Rutgers University, New Brunswick, NJ, USA.

Douglass College,

May 1991: BA, Political Science (two years biochemistry)

Grade Point Average: 3.9 within degree studies
 3.3 cumulative

Awards, Honors and Externally Funded Activities

Pi Sigma Alpha, National Political Science Honors Society

1990, 1991 Dean's List

1990 Grantee Participant, Communist States in Transition, The
Washington Center, Washington, DC

1987 Advanced Placement Degree Credits Awarded: Biology

Activities

Secretary and Treasurer, MeTV: This organisation developed a television programme on the waste management crisis in New Jersey. Although the production was not completed, promise of funding toward completion was received and the project was taken over by Journalism faculty.

Steering Committee, Campaign for Affordable Rutgers Education.

Volunteer, Vote Environment Committee.

Member, Sculpture Club.

Columbia High School, Maplewood, NJ, USA.

June 1987: High School Diploma

Awards

Advanced Placement Biology; Advanced Physics; Advanced Chemistry; Advanced English; Advanced Economics; Delegate to the 1985 Model United Nations Conference.

Activities

President, St. George's Church Youth Group (1985-86); Special Youth

Delegate to the International Congress of Episcopal Bishops (1986);

Treasurer, Youth Program of the Episcopal Diocese of Newark (1985);

Acolyte and Chorister, St. George's Church (1983-87).

Maplewood Middle School, Maplewood, NJ, USA.

June 1983: Advanced to High School

Awards

Invited to sit the Standard Aptitude Test for university applicants as a part of a national, gifted students project and achieved a score above the national average university applicant score; participated in an advanced math project, which included basic computer programming and tutoring remedial math students.

Activities

Clarinetist, Bass Clarinetist and Bassoonist, Concert Band (1981-83); Bass Clarinetist, Jazz Band (1983); Acolyte and Chorister, St. George's Church (1981-83).

Jefferson Elementary School, Maplewood, NJ, USA.

June 1981: Advanced to Middle School

Awards

Qualified for inclusion in special 'Gifted and Talented Students' advanced placement program (1980); Winner, School-wide Yearbook Cover Design competition (1979)

Activities

Acolyte and Chorister, St. George's Church (1980-81).

Personal Interests

Fitness: I train regularly and have achieved the grade of third kyu (brown belt) in Shotokan Karate.

Politics - Proper and Improper: I am a regular reader of The Economist and of daily broadsheet newspapers. I like to keep up with current events at local, national, European and international levels and have also been known to indulge in the odd spy novel.

Music and Fine Arts: My parents met through a singing society in the 1950s and grew to know each other through their shared interests in music, performance, musical theatre and the fine arts. Music and the arts have always been part of the fabric of my family and personal life. I play guitar, sing, compose music, write poetry and short stories, sculpt, paint and draw. I also enjoy attending performances of classical and popular music, traditional and *avant-garde* theatre and visiting art installations and museums.

Cooking and Baking: I am allergic to several staples of the European diet and rely largely on my own cooking to meet dietary requirements. I enjoy cooking and baking gluten free delicacies for and with family and friends.

References

available upon request