

Ms Z Ece Ozdemiroglu

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23rd June 1970
Turkish and British

QUALIFICATIONS

MSc. Environmental Economics and Natural Resource Management, University College London, London University, 1992

BA Economics, Faculty of Economics, Istanbul University, Istanbul, Turkey, 1991

Languages: English (fluent), Turkish (mother tongue), Spanish (basic), German (basic), Azeri (basic)

KEY EXPERTISE

Environmental economist specialising in project appraisal, cost-benefit analysis of environmental impacts of investments, and the theory and practice of economic valuation techniques.

As the founding director of eftec, Ece specialises in the use of economic valuation evidence in economic appraisal. Most of her work in this field has been about the water environment both for the water companies and the regulators. She is currently working on economic valuation studies concerning three multi-billion pound water supply and waste water managements projects and coordinating an international team of scientists and economists writing the damage assessment guidance to accompany the EU Environmental Liability Directive. As part of her work on the water environment, she has also undertaken cost benefit analyses of land and water remediation in the UK as well as writing guidance on how to undertake CBA for several clients in different sectors. Since 1992, Ece has worked on over 150 projects, the majority of which she has managed. Her clients include most UK government departments and agencies, the European Commission, the European Investment Bank, the World Bank, the Global Environment Facility and the governments of Turkey, the Netherlands, South Africa, PR of China and Mongolia among others. She has co-edited or co-authored 11 books and contributed to several articles and conference papers.

PROFESSIONAL ASSOCIATIONS

Member, European Association of Environmental and Resource Economists

Member, UK Network for Environmental Economists

Expert Member, Black Sea NGO Network

EXPERIENCE RECORD - CONSULTANCY PROJECTS

Selected projects (2001 onwards only). Ms Ozdemiroglu is a founding director of eftec and has managed over 150 projects with eftec since 1992.

Offshore Special Areas of Conservation - Development of Impact Assessments (2007-8)

for Joint Nature Conservation Committee (JNCC) Prepare an IA to the completion of the options stage for one of the proposed SAC areas; prepare 'options IAs' for the remaining six areas likely to be consulted upon by JNCC in 2007; and identify structured questions for the consultation stage of the Impact Assessment and to incorporate the feedback received from the consultation.

Surveys of Customer Preferences for Company Services (2007)

for United Utilities. Design and implementation of choice experiment questionnaires covering water supply, treatment, environmental performance and customer services of the company. The resulting estimates are used as indicators of service benefits in the company's business plan submission to the Environment Agency and Ofwat as part of the Periodic Review (2009).

Surveys of Customer Preferences for Company Services, Southern Water (2007)

for Southern Water. Design and implementation of choice experiment questionnaires covering water supply, treatment, environmental performance and customer services of the company. The resulting estimates are used as indicators of service benefits in the company's business plan submission to the Environment Agency and Ofwat as part of the Periodic Review (2009).

Resource Equivalency Methods for Assessing Environmental Damage in the EU (REMEDE) (2006-8)

for DG Research and DG Environment of the European Commission. The project will produce a toolkit to help Member States implement the EU Directive on Environmental Liability. The resource equivalency methods of concern assess the damage and help select the appropriate remediation approaches. Economic concepts as well as methods are also involved. Ece is the director of a 15 partner consortium undertaking the research. Further information can be obtained from www.envliability.eu

Thames Tideway Stated Preference Study (2006)

for Thames Water and stakeholders. A contingent valuation survey designed to estimate WTP for the environmental benefits of reducing the combined sewer overflows to the tidal part of the Thames. The study also involved liaising with the stakeholders and informing their discussions.

Incorporating the Environment in Decision Making for Flood and Coastal Erosion Risk Management (2006-7)

for the Environment Agency for England and Wales. The project involves providing qualitative, quantitative and monetary assessments of different flood management schemes (especially the 'soft' engineering options like managed realignment) and produces a handbook for the Agency appraisers to use benefits transfer to reflect the economic value of the environmental benefits of such options in the cost benefit analyses undertaken.

Valuing Landscape Impacts of Transport (2006-7)

for the Department for Transport. The overall objective of this study is to develop transferable monetary values for the impacts that individual transport schemes have on the natural landscape in England. It involves a typology of landscapes and transport schemes; undertaking primary research and testing a benefits transfer model.

Assessing the Value of Groundwater (2005-06)

for the Environment Agency for England and Wales. Benefit typology and quantification for the services of groundwater to be used in economic appraisals in the context of groundwater remediation,

abstraction and the contribution of groundwater to surface water - as part of the preparations for Water Framework Directive.

Guidance on the Evidence Required to Justify Disproportionate Cost Decisions under the Water Framework Directive (WFD CRP project 3) (2005-06)

for the Department for Environment, Food and Rural Affairs. The study defines a list of water and non-water related benefits that could be compared to the costs of measures in order to test for disproportionality under the WFD and presents a guidance to undertake this comparison together with a database of qualitative, quantitative and monetary expressions of benefits.

Using Cost Benefit Analysis for Investing in Prevention of Sewer Flooding (2005-06)

for Thames Water Utilities Ltd. A research programme that outlines the conceptual basis for the benefit assessment in the context of reducing the risk of sewer flooding of properties as well as different research options for quantifying these benefits including using market data and revealed and stated preference data.

Valuing our Natural Environment (2005-06)

for the Department for Environment, Food and Rural Affairs. This project will review all robust (economic and non-economic) methodologies in terms of their theoretical basis as well as their use in practice. In addition, the project will also provide a strategic overview of the existing evidence on the value of natural environment. The project will also consult decision makers in Defra and other stakeholders in terms of their needs for evidence on the value of natural environment and their experience with using different methodologies and conveying their outputs.

Use of Economic Instruments in Policies Addressing Resource Use (2005-06)

for European Environment Agency (through the environmental policy framework agreement). This work aims to increase understanding of the efficient and effective use of economic instruments in resource management in EEA member countries. It will ask whether the inclusion of economic instruments in complex policy packages, as those usually implemented for waste and resources, can improve their overall performance. It also aims to develop a framework for evaluating ex post the efficiency and effectiveness of economic instruments. Ece's role is to be one of the peer reviews of the reports to be prepared and advise on the methodology.

Economic Valuation of Environmental Impacts in the Severely Disadvantaged Areas (2005)

for Defra. Study aiming to estimate the changes in external environmental values in English Severely Disadvantaged Areas (hill-farming areas) associated with land use changes following from potential Hill Farming Allowance policy changes. The study will use the Choice Experiment stated preference approach to value environmental attributes of upland areas associated with hill-farming.

Review of GHK report on EU marine strategy (2005)

for GHK. The purpose of the report by GHK is to present an estimate of the costs of a non-action scenario for the European Marine Strategy. These are the costs that would be incurred if use of the European marine environment continues on a business-as-usual and policy-as-usual basis. The analysis included the impacts from fishing, development-urbanisation-industry, marine transport and climate change. We served the peer review function checking the assumptions for the baseline and the implementation of the marine strategy, as well as coverage of the economic literature for market and non-market cost estimates and the calculations.

WTP for car attributes (Terms of Reference preparation) (2005)

for DfT. One of the current policy objectives of the Department is to encourage the shift to more fuel efficient cars in order to reduce the carbon emissions from transport. This requires a better understanding of the factors behind demand for different types of cars such as price elasticity of demand; preferences for individual attributes of cars that influence their fuel efficiency and also

factors that affect automotive supply. This report contains potential research options that are designed to inform a series of fundamental and supplementary policy questions about demand and supply. It aims to assist decision-making for commissioning future research.

The Scope for Using Results of Valuation Studies in the Appraisal and Assessment of Heritage-Related Projects and Programmes (2005)

for English Heritage. Study to inform on the use of valuation studies in the appraisal or assessment of heritage projects, policies or funding decisions or in the appraisal of projects and policies that impact upon heritage. The project is reviewing the existing UK and international literature on heritage-related valuation studies and will attempt to demonstrate the possible use of value transfer methodologies in heritage appraisal in the UK.

Literature Review: Economic, Social and Ecological Value of Ecosystem Services (2004)

for DEFRA. Study aiming to review the relevant ecological and economic literature on ecosystem services, such as assimilation of wastes and provision of health benefits, in order to distill policy messages with regards to the value of ecosystem services. The focus of the review was on biodiversity and its economic value as manifested in actual markets as well as non-market values. The role of sustainable use of ecosystem services in the alleviation of poverty in developing countries was also within the remit of this project.

Olympic Games Impact Study: Stated Preference Analysis (2004)

for Department of Culture, Media and Sport. Contingent valuation study to find out the willingness to pay of people both within and outside London for the intangible benefits of hosting the 2012 Olympic Games in London. Surveys were undertaken in Greater London, Manchester and Glasgow.

Valuing Land Based Externalities (2004)

for Department for Transport. This paper recommends future research possibilities and how these may be implemented as part of DfT work programme to extend monetisation of environmental costs and benefits within the New Approach to Appraisal (NATA). The focus of the paper is landscape, townscape, heritage of historic resources, biodiversity and water environment.

A Compendium of Economic Instruments for Environmental Policy (2004)

for EuropeAid. Study to provide an overview of environmental economic instruments available to the six Black Sea countries for use in managing and protecting the Black Sea environment, along with practical guidance on their implementation, aimed at officials in national and local environmental agencies, and local agencies responsible for land use planning and development.

Study into the Environmental Impacts of Increasing the Supply of Housing in the UK (2004)

for DEFRA. Exploring the potential environmental implications of increasing housing supply in the UK under a number of different growth scenarios set out by the Sustainable Communities Plan and the Barker Review. The impacts included water use, waste generation and energy use and related emissions to air. The potential role of policy instruments was also considered.

The Economic Case for Liquid Petroleum Gas: Focus on Environmental Benefits (2003-4)

for LPG Association. Study providing a comparison of the economic damage caused by the airborne emissions from LPG, petrol and diesel vehicles to feed into the evaluation of the Government's preferential treatment of LPG in terms of fuel taxation.

Assessing Costs and Benefits of Water Supply Schemes for the Periodic Review (2004)

for Thames Water. Study providing input into the appraisal process of forty-nine supply-side water schemes by measuring the environmental costs and benefits of each scheme in monetary terms using benefits transfer. The schemes included aquifer storage and recovery, bulk sea import, canal transfer, desalination, flow augmentation, groundwater, reservoirs, re-use and river transfer.

Cost Benefit Analysis of a Landfill Remediation (2003)

for the UK Atomic Energy Authority. Study is to equip the UKAEA with the relevant information and a framework to compare the costs and benefits of remediation of a landfill, found to contain both radioactive material and asbestos. The report was designed to assist decision-makers in selecting the most economically efficient and defensible remedial approach.

Strategic Integrated Appraisal Methods (SIAM) (2003)

for the Environment Agency. Study to 'equip the Environment Agency with a series of practical tools and techniques' to put it on 'a more proactive footing', and to strengthen its position on sustainable development. The study was specifically intended to (i) develop further existing simple appraisal tools; (ii) use case studies to provide an opportunity to develop appraisal tools; and (iii) consider the means of determining suitable criteria for trade-off analysis between the environmental, economic and social impacts of options.

Economic Benefit of Improved Access to Marine Data (2003)

for Inter Agency Committee on Marine Science and Technology. Advisory work adding economic benefit arguments to anecdotal evidence that disparate data collection, storage and analysis efforts lead to inefficiencies in data use, by exploring the extent to which economies of scale or cost savings and efficiency gains can be realised by a coordinated data dissemination policy.

Economic Instruments for the Protection of the Black Sea (2003)

for Global Environment Facility Black Sea Ecosystem Recovery Project. Study reviewing current practice of using economic instruments for environmental policy in the Black Sea countries and recommendations for short and long-term policy reform actions, feeding into national as well as regional policy-making through the Black Sea Economic Commission.

Framework for Environmental Accounts for Agriculture (2003)

for DEFRA. Development of a framework of national accounting in order to include the economic costs and benefits of environmental impacts of agriculture in the national agricultural accounts. The study involved reviewing existing similar frameworks and relevant literature.

Regulatory Impact Assessment: Landfill Gas Management Measures (2003)

for the Environment Agency. The Landfill Directive stipulates that the collection, treatment and use of landfill gas must be carried out in a manner "which minimises damage to, or deterioration of, the environment and risk to human health." This study assessed whether the new emissions-based regulation complies with this stipulation, by conducting a regulatory impact assessment for the package of proposed landfill gas management measures.

Valuation of the External Costs and Benefits to Health and the Environment of Waste Management Options (2003)

for DEFRA. Review of the recent economic valuation literature to advise the Department about potential increases in the environmental costs of waste disposal technologies, including landfill, incineration, composting, and recycling. The advice is part of the Department's current review of the UK landfill tax.

The Economics of Sustained Marine Measurements (2003)

for Inter Agency Committee on Marine Science and Technology. Cost-benefit analysis framework for identifying and measuring the potential benefits of information on the chemical, biological and physical conditions of international waters and applying this framework to two case studies, including the UK's sponsorship of the Jason-2 satellite.

The New Quito Airport - Scoping Level Cost Benefit Analysis (2003)

for AECON (Engineering and Construction). The objective of this study is to raise the awareness of AECON (the developers), Government of Ecuador and International Finance Institutions (potential funders) to all the impacts of a proposed new airport in Quito, Ecuador. The study designs and implements a scoping level Cost Benefit Analysis taking into account financial, environmental and social costs and benefits. These include: capital operating costs, tourism revenue, avoided accidents and fatalities, avoided flight delays, avoided air pollution and avoided noise. Overall the results of the analysis indicate that the new airport leads to a net increase in the welfare of society.

Integrated Approximation Strategy for Turkey (2003)

for EC Delegation to Turkey and Turkish Ministry of Forestry and Environment. Preparation of an investment and financing strategy for Turkey to implement EU environmental legislation - about 280 directives in nine environmental sectors: air, waste, water, nature conservation, industrial pollution, chemicals, noise, nuclear energy and "horizontal" (e.g. environmental impact and strategic environmental assessments). The nine sectoral strategies were combined to create an integrated approximation strategy that prioritises investments within and across different sectors.

Thames Tideway - Cost Benefit Analysis (2003)

for Thames Water. Cost benefit analysis of the engineering solutions proposed to reduce the overflow of raw sewage into the tidal Thames (Thames Tideway) during heavy storms.

Valuations for Water Resource and Water Quality Schemes: a literature review (2002)

for the Environment Agency. Desk study forming one part of a two-part study, entitled 'Review of Benefits Assessment Guidance and Valuations for Water Resource and Water Quality Schemes'. The overall objective of the study was to develop a single methodology and guidance for assessing the environmental costs and benefits of water resource and water quality management projects. Eftco provided the unit benefit estimates for this via a review of the literature.

Environmental Valuation of Demand Management Options (2003)

for Southern Water. Study to identify, quantify and monetise the environmental and social impacts associated with three types of water demand management schemes: leakage reduction, water efficiency and water metering.

Thames Tideway - A Stated Preference Study (2002)

for Thames Water. Stated preference survey to estimate individuals' willingness to pay for improvements to a number of attributes of the Thames Tideway, namely, litter, dissolved oxygen and risk to human health due to water quality.

Benefits Transfer and Collation of Economic Valuation Studies on the Water Environment (2002)

for the Environment Agency / Southern Water. A review of (a) benefits transfer methodology, literature, limitations, criticisms and applications to other fields; and (b) the economic valuation literature for the environmental impacts of water quality and water quantity schemes.

Populating the Environmental Valuation Reference Inventory (2002)

for European Commission DG Environment. Population of the EVRI database with European studies on noise; the value of resources / services damage for cases that are likely to be relevant to the application of the EU Directive on Liability; the value of statistical life; and other studies within the environmental field (namely, water ecosystems and their uses, and the preservation of cultural heritage).

Risk, Uncertainty and the Balance Between Supply and Demand (2002)

for UK Water Industry Research. The overall aim of this project was to improve understanding of the risks to water companies and the costs to society of various water resource planning options.

Phase 1 developed a methodology to incorporate risks and uncertainties into water company demand forecasts. Phase 2 considered both demand forecasts and resource planning.

Valuation of Benefits to England and Wales of a Revised Bathing Water Quality Directive and Other Beach Characteristics Using the Choice Experiment Methodology (2001-2)

for DEFRA. A combined choice modelling and contingent valuation study estimating the benefits to the UK of a revised bathing water quality directive and other beach characteristics.

The External Benefits of Undeveloped Land: a Review of the Economic Literature (2001-2)

for DTLR. Review of the land use typology and valuation literature for the estimation of the external benefits of undeveloped land, contributing to initial discussions of an economic instrument design.

Top-down or Bottom-up Approaches to Valuation of Air Pollution Damage: an Experimental Study (2001-2)

for Powergen. The current practice in air pollution impact assessment is to estimate the economic costs of each impact separately and then sum these to find the total costs of air pollution. This study aimed to test the hypothesis of whether the damage estimates for air pollution would be lower if all impacts of air pollution were assessed simultaneously, rather than individually, and if air pollution were presented in the context of other environmental problems. This was addressed by implementing experimental contingent valuation and choice modelling questionnaires through focus groups, workshops and pilot surveys.

Costs and Benefits Associated with Remediation of Contaminated Groundwater: Application and Example (2001)

for the Environment Agency. Cost-benefit analysis of the remediation of groundwater contamination: a case study based on real data.

Poverty-Environment Linkages within the Poverty Reduction Strategy Paper of the Republic of Azerbaijan (2001)

for DFID. Paper contributing to the mainstreaming of environmental concerns into the poverty reduction strategy for Azerbaijan, necessitating identification of the links between poverty and environment and policy options that address both or compensate the negative impacts of poverty reduction strategies on the environment and vice versa.

EXPERIENCE RECORD - TEACHING, TRAINING AND PRESENTATIONS (selected 1996 onwards)

2007: **Overview of the REMEDE** (Resource Equivalency Methods for Assessing Environmental Damage in the EU), presentation to the Spanish Ministry of the Environment and other stakeholders, Madrid, 18 April; and at the summer course at UIMP (International University of Menendez Pelayo), Santander, 21 June.

Applied Cost Benefit Analysis module at the MSc in Environmental Technology, Imperial College, London, 1 February.

Overview of the REMEDE (Resource Equivalency Methods for Assessing Environmental Damage in the EU), presentation to the meeting of the Member State representatives, European Commission, 19 January.

2006: **Applied Cost Benefit Analysis** module at the MSc in Environmental Technology, Imperial College, London, 28 February.

Capturing the Public Value of Heritage, conference organised by Heritage Lottery Fund, Department for Culture, Media and Sports, English Heritage and the National Trust, 25-26 January (speaker at the panel discussion titled "*The Instrumental Benefits of Heritage: how are they measured?*")

Economic Valuation for Environmental Policy in the UK: overview and examples, invited lecturer for the monthly seminar series of the Policy Studies Institute, 10 January.

2005: **Applied Cost Benefit Analysis** module at the MSc in Environmental Technology, Imperial College, London, 18 January.

2004: National Groundwater Association, teaching a 2-day course recognised as part of the continued professional development programme on "**Economic Analysis for Ground Water Remediation: a tool for decision making**", New Orleans, USA, 11-12 November.

Economics of Groundwater Remediation, 4th BGA Conference, Environment Agency, Stratford-upon-Avon, 30 June.

2003: National Groundwater Association, teaching a 2-day course recognised as part of the continued professional development programme on "**Economic Analysis for Ground Water Remediation: a tool for decision making**", New Orleans, USA, 11-12 November.

2001: Centre for Cultural Economics and Management conference, presentation titled '**Valuing Our Recorded Heritage**', University College London, 2 February.

2000: Public Services Quality Group, Quality Forum, presentation titled '**Valuing Our Recorded Heritage: an economic approach**', Public Record Office, 29 November.

Development Planning Unit, University College London, lecturer on **introduction to environmental economics** module of MSc Environment and Sustainable Development, October.

The University of Liverpool, Leverhulme Centre for Innovative Catalysis, Department of Chemistry, lecturer on **introduction to environmental economics and economic appraisal** sections of the Managing Catalytic Technology Model, October.

University of Manchester Institute of Science and Technology (UMIST), lecturer for the module on **environmental economics and cost-benefit analysis** on the MSc Environmental Technology, February.

1999: Lecture: '**What do environmental economists do?**' to the Union of Palestinian Engineers, Ramallah and to the Palestine Hydrology Group, Jerusalem, July.

Trainer at **Capacity Building for Resource Managers: Improved Planning and Effective management of Coastal Resources and Critical Habitats**: 15-18 March, sponsored by the British Council, Mombasa, Kenya.

1998: Trainer at two courses on the **role of environmental economics in environmental policy making** organised by the Economic Development Institute (the World Bank) and METAP (Mediterranean Environmental Technical Assistance Programme), Ankara, Turkey.

1998: Trainer at the Commonwealth Secretariat Caribbean Region workshop on **Integrating Economic and Environmental Policies for Sustainable Development**, Trinidad, held 9-13 March, 1998.

1994 -

1997: Lecturer on **Methods of Microeconomic Analysis: Cost Benefit Analysis, Project Appraisal and Evaluation** on the MSc in the Economics of Urbanisation and Managing the City Economy of the Development Planning Unit, University College London.

1996: Trainer at the Commonwealth Secretariat workshop on **Integrating Economic and Environmental Policies for Sustainable Development** in Colombo, Sri Lanka, 11-14 November.

Trainer at the South African Department of Environmental Affairs and Tourism on **Integrating Economic and Environmental Policies for Sustainable Development**, 22 - 27 July.

Trainer at the Commonwealth Secretariat workshop on **Integrating Economic and Environmental Policies for Sustainable Development** in Malta, 29 January - 1 February.

1997 External Examiner at University of Manchester, MSc in Pollution Control and Environmental Quality

PUBLICATIONS

Books

(with Paul Hardisty) (2005) *Economics of Groundwater Remediation and Protection*, CRC Press, Florida, US.

(with Ian Bateman, Richard T. Carson, Brett Day, Michael Hanemann, Nick Hanley, Tannis Hett, Michael Jones-Lee, Graham Loomes, Susana Mourato, David Pearce, Robert Sugden, John Swanson) (2002), *Economic Valuation with Stated Preference Techniques: A Manual*, Edward Elgar, London.

(with Vivien Foster, Susana Mourato and David Pearce) (2001), *The Price of Virtue: The Economic Value of the Charitable Sector*, Edward Elgar, London.

(with IVM) (1998), *External Economic Benefits and Costs in Water and Solid Waste Management Investments: Methodology, Guidelines and Case Studies*, IVM, Amsterdam.

(with ApSimon H and Pearce D W (editors)) (1997), *Acid Rain in Europe: Counting the Cost*, Earthscan, London.

Chapters in Books

(with Ian Townend) (2006) Economics of sustained marine measurements, *European Operational Oceanography: present and future*, European Commission.

(with Newcombe, J. and Atkinson, G.) (2006) Towards green sectoral accounts for UK agriculture, in David Pearce (ed) *Valuing the Environment in Developed Countries*, Edward Elgar, Cheltenham.

(with Mourato, S., Newcombe J., Georgiou, S., and Provins, A.) (2006) Is it worth revising the EU Bathing Water Directive? A choice experiment in David Pearce (ed) *Valuing the Environment in Developed Countries*, Edward Elgar, Cheltenham.

(with Mourato, S., Atkinson G., Newcombe J., and deGaris Y.) (2006), The value of a tidier Thames: Willingness to pay to reduce sewage overflow, in David Pearce (ed) *Valuing the Environment in Developed Countries*, Edward Elgar, Cheltenham.

(with Mourato, S.) (2000), Valuing Marginal Changes in River Flow: Do People Care? in (eds) Paul McMahon and Dominic Moran, *Economic Valuation of Water Resources: Policy and Practice*, CIWEM (The Chartered Institution of Water and Environmental Management), London.

(with Foster V, Mourato S, Pearce D and Tinch R) (1998), Incorporating External Impacts in Pest Management Choices, *Bugs in the System: Reinventing the Pesticide Industry for Sustainable Agriculture* (ed: B Vorley and D Keeney), Earthscan, London.

(with Turner R K and Steele P) (1995), Environmentally Sensitive Areas in the UK: Economic Incentives for Sustainable Farming, *Green Budget Reform*, Earthscan and IISD (International Institute of Sustainable Development), London.

(with Turner R K and Steele P) (1995), Recycling credits in the UK: Economic Incentives for Recycling Household Waste, *Green Budget Reform*, Earthscan and IISD (International Institute of Sustainable Development), London.

(with Steele P) (1994), Examples of Existing Market-Based Instruments and the Potential for their Expansion in the Asian and Pacific Region, in *Financing of Environmentally Sound Development*, Asian Development Bank, Manila.

Articles

(with Mourato, S., Atkinson, G., Newcombe, J., and de Garis, Yvette) (2005) Does a Cleaner Thames Pass an Economic Appraisal? The value of reducing sewage overflows in the River Thames, *Water International*, 30(2), 174-183.

(with Mourato, S., Hett, T. and Atkinson, G.) (2004) Pricing Cultural Heritage: a new approach to managing ancient resources, *World Economics*, 5(3), pp 95-113.

(with Hardisty, P.E, Dottridge, J., Wallace, S., Smith, J., and Fisher, J) (2001) A Method for Assessing the Full Costs and Benefits of Groundwater Remediation, *Innovative Methods in Support of Site Investigation* 6 (4), Batelle Press, Columbus, USA. pp 17-27.

(with Mourato S, Pearce D W and Howarth A) (2000) Beyond Dusty Archives: benefits preserving recorded heritage, *Cultural Trends*, October 2000.

(with Mourato S and Foster V) (March 2000) Evaluating Health and Environmental Impacts of Pesticide Use: Implications for the Design of Eco-Labels and Pesticide Levies, *Environmental Science and Technology - special issue on economic valuation*.

(with Eyre N, Pearce D W and Steele P (January 1997), Damage Costs of Transport Emissions - Geographical and Fuel Dependence, *Journal of Transport Economics and Policy*.

(with S Dobson and D W Pearce) (1997), Replicating Innovative National Financial Mechanisms for Sustainable Development, *Finance for Sustainable Development: the Road Ahead*, United Nations, New York.

(with S Dobson and D W Pearce) (1997), Measuring the Social Value of Charities, *Dimensions of the Voluntary Sector, 1997*, Charities Aid Foundation, London.

(1996), Turkey is Ready for Success: HABITAT II in Istanbul, *Platform*, Newsletter of the Anglo-Turkish Association for Academics and Professionals, Issue 4, June.

(1995), Plans for Nuclear Power in Turkey: Not Another Mistake, Please!, *Platform*, Newsletter of the Anglo-Turkish Association for Academics and Professionals, Issue 2, November.

Conference / Seminar Papers

(2005) (with I Townend) *Economics of Sustained Marine Measurements*, EUROGOOS, 6-9 June, Brest, France.

(2005) (with P Hardisty) *The Economics of Groundwater Remediation*, Envecon (Applied Environmental Economics Conference), 18 March, London, UK.

(2004) (with J Newcombe, S Mourato, G Atkinson and Y deGaris) *The Value of a Tidier Thames: WTP to reduce sewage overflows*, Envecon (Applied Environmental Economics Conference), 26 March, London, UK.

(1999), *Valuing Marginal Changes in River Flow: Do People Care?* (with S Mourato), Valuing the Environment Beyond 2000, CIWEM National Conference, 23 November 1999, London.

(with Hardisty P E, Kramer E and Brown A) (1999) Economic Analysis of Remedial Objective Alternatives for an MtBE Contaminated Aquifer, *Proc. Hydrocarbons and Organic Chemicals in Groundwater*, NGWA, Houston, Nov.

(1999), *Attaining Sustainable Agriculture in the Pesticide Industry: integration of environmental and economic factors to achieve an efficient pesticides levy*, (with Dr Dominic Hogg), Agriculture and the Environment Conference, 14-16 April, University of Warwick, Coventry, UK.

(1998), *Solid Waste Management Policies in the EU and the Role of Environmental Economics in Shaping Them*, Environmental Economics and Policy Conference, 18-19 April, Istanbul, Turkey.

(1995), *the External Costs of Electricity Generation: A Comparison of Generation Technologies*, paper presented at Symposium on Development and Utilisation of Biomass Energy Resources in Developing Countries, Vienna, Austria, 11-14 December 1995, organised by UNIDO.

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