



CURRICULUM VITAE

NAME: DAVID N. BARTON

CURRENT POSITION: ENVIRONMENTAL AND RESOURCE ECONOMIST

INSTITUTION: NORWEGIAN INSTITUTE FOR WATER RESEARCH (NIVA)

BORN: 1968

NATIONALITY: BRITISH AND NORWEGIAN

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KEY QUALIFICATIONS:

David N. Barton (38) holds a Ph.D. in Agricultural and Resource Economics from the Agricultural University of Norway (NLH), an M.Sc. in Ecological Economics from the National University of Costa Rica (UNA), and an M.Sc. in Economics and Business Administration from the Norwegian School of Economics and Business Administration (NHH).

Barton has 10 years experience in the use of environmental and resource economics in water resource management, sustainable harvesting of wetland resources and conservation management planning. He has specialised in the application of non-market valuation methods for environmental quality, particularly water and sanitation services. He has applied economic valuation methods and economic analysis to the evaluation of multiple use conflict in wetlands, watershed and coastal resource management.

He has conducted a number of watershed and coastal management related projects, including cost-effectiveness analysis of groundwater protection (Norway), non-market valuation and benefit-cost analysis of clean-up measures for contaminated marine sediments (Norway), economic evaluation of upland small-holder soil conservation practices in watershed management (Nicaragua, Guatemala, Honduras, El Salvador), feasibility studies of flood mitigation (Nicaragua), economic evaluation of conservation areas (Costa Rica), economic valuation of water and sanitation projects in coastal zones (Costa Rica), natural resource damage valuation of oil spills in coastal zones (Sri Lanka), cost-effectiveness and multiple criteria analysis of lake restoration measures (Inner Mongolia, China), economic impact analysis of toxic algal blooms (Uganda), and is currently engaged in a feasibility study of payments for watershed environmental services (Karnataka, India). He has worked on demonstration of economic analysis under the EU's Water Framework Directive in three pilot sites in Norway, and is currently the coordinator for Norwegian case study in EU FP6 Specific Targeted Research Project entitled "Development and Testing of Practical Guidelines for the Assessment of Environmental and Resource Costs and Benefits in the EU Water Framework Directive" (AQUAMONEY).

Barton has designed several Spanish-language capacity-building courses in economic valuation of wetlands and environmental services for institutions such as the IUCN-Mesoamerica, the Costa Rican National Biodiversity Institute (INBio) and the Center for Tropical Agricultural Research and Education (CATIE).

COMPETENCE KEYWORDS: water economics, integrated water resource modelling, decision support systems, environmental impact assessment (EIA), natural resource damage assessment (NRDA)

CURRICULUM VITAE (continued)

EDUCATION:

- 1996-1999 **Ph.D. in Agricultural and Resource Economics (emphasis in environmental economics)**
Agricultural University of Norway.
- 1994-1995 **M.Sc. Economic Policy** with a specialisation in Ecological Economics
Universidad Nacional de Costa Rica (UNA)
- 1988 - 1992 **M.Sc. Economics and Business Administration (Siviløkonom),**
Norges Handelshøyskole (NHH), Bergen, Norway
Specialisation in International Economics.
- 1991 - 1992 Exchange programme (one year), Ecole Supérieure des Sciences Economiques
et Commerciales (**ESSEC**), Paris, France
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PROFESSIONAL EXPERIENCE (SELECTED):

- Feb.2003 – Environmental and Resource Economist, Norwegian Institute for Water Research (**NIVA**)
- Jan. 2000-Jan.2003 Environmental and Resource Economist, Department for Environment and Resources,
InterConsult ASA and **Interconsult International AS.**
- Nov.'98-Jan.'99 Secretary for Expert Panel on the Role of Research in Sustainable Development
Norwegian Research Council.
- June-July 1998 Intern. Environmental Economics and Sustainable Indicators Unit,
World Bank, Washington D.C.
- Nov. '95-Jun.'96 Environmental Planning Liaison in Costa Rica, **Norconsult International A.S.**
Environmental Impact Assessment of Pacuare Hydropower Project
- Sep. '95-Mar. '96 Researcher and lecturer, International Centre for Political Economics, **Universidad Nacional de**
Costa Rica (CINPE-UNA). UNEP Project on Economic Valuation of
Natural Resources in Latin America. Lectured M.Sc. course on EIA and CBA.
- May '93- Aug. '95 Project officer and Researcher, Centre for Studies of Environment and Resources (**SMR**),
University of Bergen. Coordinator of research programme on integrated coastal zone
management (ICZM) in Costa Rica. Economic valuation of tropical coastal resources. Field
research on mangrove valuation and management in Costa Rica.
- July-Aug. 1993 Intern, Environmentally Sustainable Development Division,
Africa Technical Department, **World Bank**, Washington D.C.
- April - July 1992 Intern, **Electricité de France (EDF)**, Paris. Research on climate change policy.
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NOTABLE ASSIGNMENTS AND PROJECTS:

Researcher, Development of Integrated Tools and Consulting Services for Watershed Management and Payments for Environmental Services in India (India PES). **Norwegian Foreign Ministry** (2006-2008)

Researcher, Bayesian network integration of nutrient loading and lake eutrophication models in cost-effectiveness analysis of abatement measures. **Norwegian Research Council** (2006)

Research Economist. SedFlex – A flexible and integrated tool for ecological and economic decision analysis of remediation of contaminated sediments. **Norwegian Research Council** (2004-2006.)

Environmental Economist, Inner Mongolia Lake Restoration Project: Lake Wuliangsu Hai Comprehensive Study, China. 2004-2005. Clients: **NORAD** and **SIDA**

CURRICULUM VITAE (continued)

Environmental Economist, Economic analysis in full scale characterisation project for 2004 reporting requirements under the EUs Water Framework Directive in Norway. Numedalslågen and Halden watersheds Clients: Norwegian EPA (**SFT**) (2003-2004)

Environmental Economist, Economic analysis in Demonstration of the Implementation of the EUs Water Framework Directive in Norway in the Vansjø-Hobøl and Suldal watersheds. Clients: **NVE, SFT, DN** (2002-2003)

Deputy Team Leader, "Agroecological and Rainwater Drainage Study of Sub-Basin III of the Southern Watershed of Lake Managua, Nicaragua", **Municipality of Managua**, financed by **NORAD**. (2001-2003)

Research Project Coordinator, "Decision-making models for evaluating the Cost-Effectiveness of Conservation Priorities Using Alternative Biodiversity Indicators" (Costa Rica), **NIVA-NINA-INBio**, financed by **Norwegian Research Council**. (2001-2004)

Task Manager, "Procedures for economic valuation of resources and accounting of oil spill damages"; Institutional Strengthening of Oil Spill Contingency Management Project, Sri Lanka for Norwegian Institute for Water Research (**NIVA**) and Norwegian Agency for Development Cooperation (**NORAD**). (2001-2002)

Economist, Benefit transfer study in "Action Plan for Clean-up of Polluted Marine Sediments Bergen Port , Norway" / Tiltaksplan for Bergen Havn." **Hordaland County Government** Environment Department / Fylkesmannen i Hordaland miljøvernnavdeling. (2002)

Economist, "Groundwater at Gardermoen National Airport. Economic impacts of protection groundwater for drinking water / Grunnvannsressurser på Gardermoen. Samfunnsøkonomiske konsekvenser ved vern av grunnvannet som drikkevannskilde", **Oslo Airport (OSL)**. (2001-2002)

Trainer. Various courses in Valuation of Environmental Services and Wetlands. National Institute of Biodiversity (**INBio**), Costa Rica, February 2001; International Union for Nature Conservancy – Mesoamerica Office (**IUCN-ORMA**), Costa Rica and Guatemala, Nov. '99, May 2000; Centre for Tropical Agricultural Research and Education (**CATIE**), Costa Rica. September 1997

Economic benefit-cost analyses of integrated watershed management measures in the Upper Río Lempa Watershed. Guatemala, Honduras, El Salvador. Interconsult International AS for **InterAmerican Development Bank (IDB)**. (April-May 2000)

Environmental Planning Liaison in Costa Rica, **Norconsult International A.S.** Environmental Impact Assessment of Pacuare Hydropower Project (Nov. '95-Jun. '96)

LANGUAGES:	SPEAKING	READING	WRITING
English	Excellent	Excellent	Excellent
Norwegian	Excellent	Excellent	Excellent
Spanish	Excellent	Excellent	Excellent
French	Good	Very good	Good

PUBLICATIONS AND SELECTED STUDIES (LAST 5 YEARS):

Articles in peer reviewed journals:

Barton, D.N., T. Saloranta, J.S. Moe, H.O. Eggestad (forthcoming). Using Bayesian networks to evaluate nutrient abatement decisions under uncertainty in a Norwegian river basin. *Ecological Economics*. Special Issue: Integrated River Basin Modelling for Effective and Sustainable Water Management. Eds. R. Brouwer and M. Hofkes

Barton D.N., T. Saloranta, T.H. Bakken, A.L. Solheim, J. Moe, J.R. Selvik and N. Vagstad (2005). Using Bayesian network models to incorporate uncertainty in the economic analysis of pollution abatement under the Water Framework Directive. *Water Science and Technology: Water Supply*. Vol.5, No.6, pp.95-104.

Barton, D.N. and S. Mourato (2003), "Transferring the benefits of avoided health effects from water pollution between Portugal and Costa Rica", *Environment and Development Economics* (8: 351-371, 2003).

Barton, D.N (2002), "The Transferability of Benefit Transfer: contingent valuation of water quality improvements in Costa Rica", *Ecological Economics* (42: 147-164, 2002).

Books:

Barton, D. N. (2006, forthcoming). How much is enough? The value of information from benefit transfers in a policy-context. The Economics of Non-Market Goods and Resources. R. R. S.Navrud, O. Bergland, Kluwer Academic Publishers.

Reports/conferences:

Skarbøvik, E., B.Glover, D.N. Barton et al.(2006). Forslag til metodikk for fastsettelse av miljømål i sterkt modifiserte vannforekomster. Med eksempler fra Numedalslågen. NIVA Report. Multiconsult, SINTEF, UiO-LFI

Barton D.N., T. Saloranta, T.H. Bakken, A.L. Solheim, J. Moe, J.R. Selvik and N. Vagstad (2006). Using belief networks in pollution abatement planning. Example from Morsa catchment, South Eastern Norway. NIVA Report 5213-2006.

Barton D.N., T. Saloranta, K. Næs, I. Cousins, J.Armitage (2006) SedFlex – Integrated Ecological and Economic Risk Analysis for Remediation of Contaminated Sediments in Norway. 7th International Conference on Hydroinformatics HIC 2006, Nice, France

Navrud, S. and D.N. Barton (2005) "Benefit-cost analysis of the Rein Fjord project" NIVA Report to Telemark County, 30. December 2005 (mimeo in Norwegian)

Barton, D.N., F.Ruden, E. Lindblom (2005). Ranking of Management and Control (MC) Measures Lake Wuliangshai Restoration Project . Report Inner Mongolia Lake Restoration Project. NIVA/IVL for NORAD and SIDA.

Barton, D.N. (2005) Economic analysis of alternative allocations of water in Lake Wuliangshai Basin, Inner Mongolia. SPI Report Inner Mongolia Lake Restoration Project. NIVA/IVL for NORAD and SIDA.

Barton, D.N. G. Rusch, J. O.Gjershaug, D. P.Faith, L. Paniagua (2004). TARGET as a tool for prioritising biodiversity conservation payments on private land - a sensitivity analysis. NIVA Report SNR 4859/2004.

Skiple Ibrek, A., D.N. Barton, O. Lindholm, N. H. Vagstad, Eigil Iversen, D. Berge (2004) Systematic evaluation of environmental remediation measures and proposed methods for improving impact analysis under the Water Framework Directive (in Norwegian) NIVA Rapport 4777 – 2004.

Barton, D. N. (2002): Evaluation of economic aspects of the Bergen Port sediment management plan (in Norwegian). NIVA Notat N-03/019. Tiltaksplan for Bergen Havn (2002) for Fylkesmannens miljøvernnavdeling, Hordaland. Av NIVA, NGI, Interconsult i samarbeid med Asplan Viak Bergen AS, Universitetet i Bergen og NCC Anlegg.

N. Siripala, Barton, D.N., S. Navrud, P.Gunawardena, S. Perera (2003) Procedures for Economic Valuation of Resources and Accounting of Oil Spill Damages. Institutional Strengthening of the Oil Spill Contingency Management Project. Marine Pollution Prevention Authority, Sri Lanka. INSTCOM-Report 05-2003.

CURRICULUM VITAE (continued)

Barton, D.N. D. Faith, G. Rusch, J.O. Gjershaug , M.Castro, M. Vega and E.Vega (2003). Spatial prioritisation of environmental service payments for biodiversity protection. NIVA Report SNR 4746/2003.

Magnussen, K. D.N. Barton, E. Romstad (2003) Full cost pricing of water services – a discussion of implementation principles in Norway (in Norwegian). Vann-4-2003.