

Curriculum Vitae - Roy Brouwer

1. BIOGRAPHICAL INFORMATION

Academic training

2000 PhD Environmental Economics, University of East Anglia, United Kingdom
1993 MSc Agricultural Economics, Wageningen Agricultural University, the Netherlands

Expertise

Environmental Economics, Water Resource Economics, Ecosystem Services, Biodiversity, Environmental Risks

Languages

Fluent in Dutch (native language), English, German and Spanish, some understanding of French and Portuguese

2. EMPLOYMENT HISTORY

Current positions

2018-present University Research Chair Water Resource Economics, Department of Economics, University of Waterloo
2016-present Full Professor, Department of Economics, University of Waterloo
2016-present Executive Director, The Water Institute, University of Waterloo
2016-present Visiting Professor, Vrije Universiteit Amsterdam. The Netherlands

Former positions

2011-2019 Visiting Professor, Swiss Federal Institute of Aquatic Science and Technology (Eawag), Dübendorf
2009-2015 Full Professor and Chair, Department of Environmental Economics, Institute for Environmental Studies, Faculty of Earth and Life Sciences, Vrije Universiteit Amsterdam, the Netherlands
2009 Visiting Professor, School of Resource and Environmental Management, Simon Fraser University, Vancouver, Canada (6 months)
2009-2014 Full Professor in Water Economics under the Dutch Research Program "Living with Water"
2008 Visiting Professor, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Canberra, Australia (6 months)
2006-2009 Associate Professor, Department of Environmental Economics, Institute for Environmental Studies, Faculty of Earth and Life Sciences, Vrije Universiteit Amsterdam, the Netherlands
2004-2006 Senior Researcher, Department of Environmental Economics, Institute for Environmental Studies, Faculty of Earth and Life Sciences, Vrije Universiteit Amsterdam, the Netherlands
1999-2004 Economist, National Water Policy Division, Institute for Inland Water Management and Wastewater Treatment (RIZA), Ministry of Transport, Public Works and Water Management, the Netherlands
1996-1999 Researcher, Center of Social and Economic Research on the Global Environment (CSERGE), School of Environmental Sciences, University of East Anglia, UK
1994-1996 Researcher, Department of Environmental Statistics/Sustainability Indicators, Statistics Netherlands
1993-1994 Researcher, Department of Agricultural Economics and Policy, Wageningen Agricultural University, the Netherlands

3. HONOURS AND AWARDS

- 2021 University of Waterloo, Faculty of Arts Award for Excellence in Research
- 2014 Nominated by the Vrije Universiteit Amsterdam for the Heineken Prize for Environmental Sciences
- 2011 Fellowship Award Swiss Federal Institute for Aquatic Science and Technology (Eawag)
- 2008 Australia Commonwealth Scientific and Industrial Research Organisation (CSIRO) Fellowship Award 'Water for a Healthy Country'

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Membership on scientific boards/committees

Current

- Founding Editor-in-Chief Elsevier journal Water Resources and Economics (2013-present)
- Member of the International Scientific Advisory Committee of the Chinese Research Academy of Environmental Sciences (CRAES) (2018-present)
- Fellow of the Balsillie School of International Affairs (2019-present)
- EAERE representative in the Socio-Economic Assessment Committee (SEAC) of the European Chemicals Agency (2016-present)
- Member of the International Advisory Board of the Doctorate Program on Water Resource Systems, Technical University of Vienna (2014-present)
- Member of the editorial board of the Journal of Environmental Economics and Policy (2012-present)

Previous

- Member of the Socio-Economics Committee of the European Chemicals Agency, Helsinki (2012-2015)
- External reviewer of the International Institute for Applied Systems Analysis (IIASA) (2015)
- Member of the International Expert Team advising the Office of the President, Government of Georgia, on the implementation and environmental impact assessment of the Khudoni Hydropower Dam (2013)
- Member of the Scientific Board of the Dutch Water Governance Centre (2013-2015)
- Member of the International Expert Team advising the Office of the President, Government of Kenya, on the development of a sustainable Land Use Plan for the Thana Delta (2012)
- Member of the editorial board of the journal Environmental Modeling and Software (2008-2014)
- Member of the editorial board of the journal Environmental and Resource Economics (2009-2013)
- Member of the Risk Assessment Working Group of the European Scientific Committee on Health and Environmental Risks (2011)
- Honorary Research Fellow in the Zuckerman Institute for Interconnective Environmental Research, University of East Anglia, UK (2005-2008)
- Member of the scientific advisory board of numerous scientific conferences and congresses, including the European Association of Environmental and Resource Economists (EAERE)

Activities

I have presented numerous papers at international workshops, congresses, conferences and seminars over the years.

- I'm an invited keynote speaker at international events on a regular basis. Over the past few years a little bit less due to the pandemic, but here are some examples where I was invited key note speaker at the:

- XIII Congress of the Spanish Association of Agri-food Economists, Cartagena, Spain, September 2021
 - Special session on water accounting organized by the international Commission for Environmental Cooperation (CEC) between Canada, USA and Mexico, Montreal, Canada, February 2020
 - 8th International Conference on Water Resources and Environment Research, Hohai University, Nanjing, China, June 2019
 - 1st International Conference on Water Security, Toronto, Canada, June 2018
- My research papers are accepted at the annual conference of the European Association of Environmental and Resource Economics (EAERE), the World Congress of Environmental and Resource Economists (WCERE), the European Society for Ecological Economics (ESEE) and the International Society for Ecological Economics (ISEE).
 - Over the past years, I have organized several special sessions on scientific topics during these conferences. For example:
 - in 2009, I organized the Water Economics pre-conference to the 17th Annual Conference of the European Association of Environmental and Resource Economists in Amsterdam.
 - in 2017, I organized Elsevier's 4th International Water Research Conference "The Role of Water Technology Innovation in the Blue Economy" in Waterloo, Canada and co-chaired the conference together with Prof. Mark van Loosdrecht (Delft University of Technology).
 - in 2021, I co-organized a special session on the economics of marine plastics pollution during the 26th Annual Conference of the European Association of Environmental and Resource Economists in Berlin together with colleagues from the Center for Environment, Fisheries and Aquaculture in the UK and University of Santiago de Compostela, Spain.
 - I also co-organized a special session on "Integrated modelling and valuation of ecosystem services in the Great Lakes" during the 2021 conference of the International Association for Great Lakes Research (IAGLR).

I'm furthermore an Expert Advisor to, among others:

- World Bank
- European Environment Agency (EEA)
- European Commission, Directorate General for the Environment
- Food and Agriculture Organization (FAO) of the UN
- UK Economic and Social Research Council (ESRC)
- Australian Research Council (ARC)
- Austrian Council for Research and Technology Development
- Peer Review College of the Danish Council for Strategic Research
- Czech Science Foundation
- South Asian Network for Development and Environmental Economics (SANDEE)
- Dutch Research Council (NWO)
- Netherlands Commission for Environmental Assessment
- Dutch National Institute for Public Health and the Environment

In addition, I'm an invited external examiner of numerous PhD theses (>25), among others at:

- University of Stirling, UK
- University of East Anglia, UK
- Australia National University, Canberra, Australia
- Charles Darwin University, Darwin, Australia
- University of Pretoria, Republic of South Africa
- ETH University, Zurich, Switzerland
- Katholieke Universiteit Leuven, Belgium
- Ghent University, Belgium
- Hasselt University, Belgium
- Autonomous University Barcelona, Spain
- Technical University of Cartagena, Spain
- Erasmus University Rotterdam, Netherlands
- University of Amsterdam, Netherlands
- Wageningen Agricultural University, Netherlands

5. SUPERVISORY AND MENTORING HISTORY

Supervision - PhD students

Current

University of Waterloo, Canada:

- Khusro Mir: Payments for wetlands ecosystem services as a nature-based solution to sustainably manage urbanized watersheds
- Xingtong Ji: Economic analysis of best management practices on agricultural land to improve water quality
- Sharmin Dilba: Climate migration and socio-economic vulnerability in Bangladesh

Vrije Universiteit Amsterdam, the Netherlands:

- Hanna Dijkstra: Sustainable business models for marine litter clean-up technologies
- Archisman Mitra: Incentivizing sustainable groundwater use and management in India
- Elvia Rufo Jimenez: Economic valuation of environmental risks in integrated water quality risk assessments
- Jason Levin-Koopman: Integrated hydro-economic transboundary river basin modelling under climate change
- Markus Glatt: Integrating discrete choice experiments into agent-based modelling of flood control measures
- Noelle Lasseur: Valuation of water in a circular economy

Completed

Department of Economics, University of Waterloo, Canada:

- Zehua Pan (2021): A theoretical and empirical investigation into the economic relationship between forested watersheds and water treatment costs

Institute for Environmental Studies, Vrije Universiteit Amsterdam, the Netherlands:

- Solomon Tarfasa (2019): Using discrete choice experiments to inform environmental policy in a developing country context: case studies from Ethiopia
- Mehmet Kutluay (2019): The value of (avoiding) malaria
- Hilary Ndambiri (2018): Non-market valuation of motorized emission reductions and air quality improvements in Nairobi, Kenya
- Tewodros Kahsay (2017): Towards sustainable water resources management in the Nile River Basin: A computable general equilibrium analysis
- Matteo Mattmann (2017): Testing choice theory using discrete choice experiments in Swiss energy policy
- Thu Ha Dang Phan (2016): Payments for Forest Ecosystem Services: Global and Local Assessments of Costs and Benefits
- Bianca van der Kroon (2016): Climbing the African energy ladder: Internal and external factors influencing household demand for improved cookstoves and modern fuels in Sub-Saharan Africa
- Abonesh Tesfaye Tulu (2013): Institutional-economic incentives for sustainable watershed management in the Blue Nile River Basin
- Thijs Dekker (2012): Preference uncertainty in stated choice experiments
- Marije Schaafsma (2011): Spatial effects in stated preference studies for environmental valuation

Co-supervision - PhD students

Current

- Jullian Sone, University of São Paulo, Brazil: Integrated water resources modelling in urban watersheds
- Jacob Greffiths, University of Pretoria, South Africa: Applying discrete choice experiments to measure water insecurity
- Alireza Daneshi, Gorgan University of Agricultural Sciences and Natural Resources, Iran: Modelling the impacts of climate and land use change on water security in forested watersheds
- Qingmin Zeng, Nanjing Agricultural University, China: Payments for watershed services in transboundary river basins

Completed

- Anders Dugstad, School of Economics and Business, Norwegian University of Life Science, Norway (2021): Applying stated preference methods to value ecosystem services - Methodological challenges and validity tests
- Leila Eaman, University of Saskatchewan, Canada (2021): An integrated water resources management framework for robust decision-making in a transboundary river basin
- Tehmina Mangan, Sindh Agriculture University (2014): Economic valuation of wetland: A case study of Keenjhar Lake in Sindh Province of Pakistan
- Alireza Nikouei, Shiraz University, Iran (2012): Integrated economic-hydrologic modeling of water allocation and use in Zayandeh Rud River Basin with emphasis on evaluation of environmental and drought policies
- Julia Martin-Ortega, University of Cordoba, Spain (2008): Non-market environmental benefits of the Water Framework Directive: a spatial approach to the Guadalquivir river basin
- Aylin Tumay Bederli, Technical University Istanbul, Turkey (2008): Benefit analysis approach as a tool for sustainable management - A case study in the Koycegiz-Dalyan watershed

Supervision - MSc students

Vrije Universiteit Amsterdam (2007-2015)

During my employment at Vrije Universiteit in Amsterdam, I supervised more than 40 MSc students with their thesis work.

University of Waterloo (2016-now)

- Zhongxiao Leng, Department of Economics
- Xingtong Ji, Department of Economics
- Xiaoxi Jin, Department of Economics
- Jared Sandler, Department of Economics
- Trang Le, School of Environment, Resources and Sustainability

Teaching

University of Waterloo (2016-now)

- In 2017 I developed the new course Water Resources Economics, which I teach every Fall term to undergraduate and graduate students. In the course students participate from Economics, Science, Environment and Engineering
- In 2019 I developed and launched the new interdisciplinary Water Institute PhD Summer School "Climate Change and Water Security in Urbanized Watersheds: An Interdisciplinary Perspective". In this summer school, I bring together 23 professors from 6 University of Waterloo faculties
- I'm a member of the Collaborative Water Program's (CWP) Steering Committee
- I'm a Lecturer in the Water Institute's interdisciplinary graduate Collaborative Water Program (CWP)
- I'm a lecturer in the course Environmental Impact Assessment in the School of Environment, Resources and Sustainability

Vrije Universiteit Amsterdam (2007-2015)

- Chair of the Examination Board for the MSc course Environmental and Resource Management (ERM)
- Coordinator of the Environmental and Resource Management (ERM) MSc thesis assignments
- Coordinator and Lecturer for the course Sustainable Energy Analysis
- Coordinator and Lecturer for the course Governance of Ecosystem Services

6. FUNDED RESEARCH PROJECTS

Over the past 6 years, since moving to Canada, I acquired more than 3.6 million Canadian dollars in research funding for my research group. A detailed overview of the various projects in which I participated over the years as Principal Investigator (PI), co-Principal Investigator (Co-PI) or as hired expert is provided below.

Year	Project Title	Funding Body
2021-2026	SACRE: Integrated water solutions for resilient cities (co-PI)	São Paulo Research Foundation (FAPESP)
2021-2025	AquaConnect: Improving Water Security in a Circular Economy in the Netherlands (co-PI)	Dutch Science Foundation (NWO)
2021-2025	Microplastics fingerprinting at the watershed scale: from sources to receivers (co-PI)	Natural Sciences and Engineering Research Council of Canada (NSERC)
2021-2025	Framework contract for the provision of expert assistance to the European Environment Agency, supporting a zero-pollution ambition, including linkages between environment, health and chemicals (expert)	European Environment Agency (EEA)
2020-2024	PRORISK: development of new integrated chemicals risk assessment procedures linked to ecosystem services (co-PI)	Marie Skłodowska-Curie Innovative Training Networks (ITN)
2020-2021	Global Water Storage: Issues, Challenges, Opportunities (expert)	World Bank
2020-2023	Towards a Harmonized Approach to Economically Value Canada's Water Resources and Ecosystem Services (PI)	Canada First Research Excellence Fund (CFREF) – Global Water Futures (GWF)
2019-2022	Payments for Wetland Ecosystem Services as a Nature-Based Solution to Sustainably Manage Urbanized Watersheds (PI)	Canada Social Sciences and Humanities Research Council (SSHRC)
2018-2019	Water and Sanitation for the Urban Poor (WSUP), Dhaka, Bangladesh (PI)	WSUP and University of Oxford, UK
2018-2019	Informing investment decisions in Canada in drinking and wastewater treatment technology to reduce the environmental and human health risks of micropollutants (PI)	Seed Grant, Office of Research, University of Waterloo
2018-2020	Global Nitrogen Assessment (co-PI)	UNEP/Dutch Environment Agency (PBL)

2018-2019	Water Security in the Guarani Aquifer in São Paulo, Brazil (co-PI)	FAPESP Sao Paulo Research Foundation
2018-2019	University of Waterloo-University of Bordeaux Joint Research Grant (PI)	University of Waterloo
2017-2022	forWater: NSERC Network for Forested Drinking Water Source Protection Technologies (co-PI & WP4 leader Economics)	Natural Sciences and Engineering Research Council of Canada (NSERC)
2017-2020	Development of a Water Quality Valuation Model for Canada (PI)	Environment and Climate Change Canada
2017-2023	Agricultural Water Futures in Canada: Stressors and Solutions (co-PI)	Canada First Research Excellence Fund (CFREF) – Global Water Futures (GWF)
2017-2023	Integrated Modelling Programme for Canada's Major River Basins (co-PI)	Canada First Research Excellence Fund (CFREF) – Global Water Futures (GWF)
2017-2023	Lakes Futures: Enhancing Adaptive Capacity and Resilience of Lakes and their Watersheds (co-PI)	Canada First Research Excellence Fund (CFREF) – Global Water Futures (GWF)
2017-2021	CLAIM: Cleaning Litter by developing and Applying Innovative Methods in european seas (co-PI & WP leader socio-economics of marine litter)	European Commission – Horizon2020
2017-2019	Legacies of Agricultural Pollutants (LEAP): Integrated Assessment of Biophysical and Socioeconomic Controls on Water Quality in Agroecosystems (co-PI)	EU Water Joint Programming Initiative - Water Challenges for a Changing World and NSERC
2017-2021	Water Security as a Foundation for Healthy Communities and Sustainable Livelihoods (PI) 35 PhD & post-doc students and early career scholars in the Global South, co-supervised by Water Institute	Queen Elizabeth Scholarship (QES) II Diamond Jubilee Scholarships
2015-2018	FATIMA Farming tools for external nutrient inputs and water management (leader work package on socio-economic assessment of farming externalities)	DG Research, European Commission
2015-2017	ESMERALDA Enhancing ecosystem services mapping for policy and decision making (leader work package on economic valuation of ecosystem services)	DG Research, European Commission
2014-2015	Economic Valuation of the Amazon Ecosystem Services (expert)	World Bank
2012-2015	REFORM Restoring River Ecosystems in Europe (leader work package on socio-economics of river restoration)	DG Research, European Commission
2013-2015	CLEANSEA Towards a Clean, Litter-Free European Marine Environment through Scientific Evidence, Innovative Tools and Good Governance (leader work package on socio-economic impacts of marine litter)	DG Research, European Commission

2013	Member of the International Expert Team advising the Minister of Environment of Georgia on the Khudoni Hydropower Project (expert)	Netherlands Commission for Environmental Assessment
2012-2015	Institutional-Economic Design of Global Payments for Ecosystem Services and Biodiversity (co-PI)	Netherlands Organization for Scientific Research (NWO)
2012-2015	CONNECT: Linking biodiversity CONservatioN and ecosystem services: advancing insights in tradeoffs and synergies between biodiversity, ECosysTem functioning and ecosystem service values for improved integrated biodiversity policy (co-PI)	Netherlands Organization for Scientific Research (NWO)
2012-2013	Economic valuation of the health risks of dangerous chemicals on European markets (PI)	European Chemicals Agency, Helsinki
2012	Member of the International Expert Team advising the Prime Minister of Kenya on integrated land use planning in the Thana Delta (expert)	Netherlands Commission for Environmental Assessment
2012-2013	The Economics of Ecosystem Services and Biodiversity (TEEB) in Europe (PI)	DG Environment, European Commission
2011	The role of community based natural resource management in sustainable grassland management and in South Africa (PI)	The Nature Conservancy, USA
2011	Water pricing in Europe (PI)	DG Environment, European Commission
2010-2011	Economic valuation of Hawaii's coral reefs for sustainable management (expert)	National Oceanic and Atmospheric Administration (NOAA), USA
2010-2014	Transboundary modelling of the economic impacts of water allocation scenarios in the Blue Nile River Basin (co-PI)	Netherlands Organization for International Cooperation in Higher Education
2009-2014	POLICYMIX: integrated design and assessment of policy instruments for biodiversity conservation and payments for ecosystem services (Socio-economics work package leader)	DG Research, European Commission
2008-2013	HYDROSOLIDARITY: Transboundary River Basin Management in the Blue Nile River Basin (co-PI)	Dutch Science Foundation (NWO)
2009-2013	SIRRIMED: Economics of sustainable irrigation water management in the Mediterranean region (Socio-economics work package leader)	DG Research, European Commission
2009-2010	HYDROVAL: Economic valuation of hydropower externalities in Austria and Switzerland (co-PI)	Climate and Energy Research Program Austrian Government
2009-2014	Renewable Energy in Africa (RENEW) (co-PI)	Ministry Foreign Affairs, NL

2009-2014	Macro-economic modelling of drought impacts (PI)	Knowledge for Climate Change Program, NL
2008	Extension of the project Water Economic Modelling for Policy Analysis (PI)	Water Ministry, Agriculture Ministry, NL
2007	Economic valuation of water and water quality: application of the hedonic pricing method to the housing market in the Netherlands (PI)	Water Ministry, NL
2006-2008	Resource Equivalency Methods for Assessing Environmental Damage in the EU (REMEDE) (co-PI)	DG Research, European Commission
2006-2010	Co-coordinator development benefits transfer guidelines for forest externalities EU Cost Action EUROFOREX	DG Research, European Commission (concerted action)
2006-2010	Estimation of environmental and resource costs related to different forms of water use in European river basins including GIS value maps (PI) www.aquamoney.org	DG Research, European Commission
2004-2008	Integrated river basin modelling WFD (PI) www.ivm.falw.vu.nl/watereconomics	Water Ministry, NL
2005-2006	Threshold values for groundwater quality in the WFD (BRIDGE) (leader socio-economics work package)	DG Environment, European Commission
2004-2005	Economic valuation in the WFD in Scotland and Northern-Ireland (co-PI)	Scottish Environment Protection Agency
2004-2006	Economic assessment human-elephant conflicts in Sri Lanka (PI)	Ministry Foreign Affairs, NL (Poverty Reduction and Environmental Management program)
2004-2007	Cost-benefit analysis flood control Bangladesh (PI)	Ministry Foreign Affairs, NL (PREM)
2004-2005	Task Force leader Socio-economics EUROWET (PI)	DG Environment, European Commission
2004	Green accounting and sustainability indicators in Guatemala (PI)	Ministry Foreign Affairs, NL
2003-2007	Coordinator Scheldt basin Working Group Economics, International Scheldt Commission	Water Ministry NL
2003-2004	Project leader European Working Group Environmental Costs, Common Implementation Strategy WFD	DG Environment, European Commission
2003-2004	Economic analysis WFD Scheldt basin (PI)	Water Ministry, NL
2003-2004	Integrated policy assessment flood disaster management (PI)	Water Ministry, NL

2003-2004	Integrated coastal zone management in the Humber (EUROCAT) (co-PI)	DG Research, European Commission
2001-2003	Integrated policy assessment long-term flood control policy Meuse (lead author policy advice)	Water Ministry, NL
2003-2005	Risk, uncertainty and scenario analysis in Integrated River Basin Management (PI)	DG Research, European Commission
2002-2003	Policy analysis revision EU Bathing Water Quality Directive (PI)	Water Ministry, NL
2001-2003	Integrated River Basin Water and Economics Information System (PI)	Water Ministry, NL
2001-2002	Economic Policy Instruments for Integrated Water Management (PI)	Water Ministry, NL
1999-2000	Integrated policy assessment long-term flood control policy Rhine (PI)	Water Ministry, NL
1999-2001	Guidelines for Integrated Water Policy Assessment (lead author)	Water Ministry, NL
1999-2004	Annual Progress Report Economic Aspects of Dutch Water Policy (lead author)	Commission Integrated Water Management, NL
1999-2003	Innovative and Interdisciplinary Water Research Programme (program leader)	Water Ministry, NL
1998-1999	Socio-cultural & economic determinants UV risks (co-PI)	Lincoln University, New Zealand
1998-1999	Ecological Functions and Services and Nature Conservation (co-PI)	English Nature
1998-1999	Sustainable Management of Fens (co-PI)	Ministry of Agriculture, UK
1996-1999	Ecological-Economic Analysis of Wetlands (co-PI)	DG Research, European Commission
1994-1996	Green Accounting/Sustainability Indicators (PI)	DG Research, European Commission
1993-1994	Economic valuation biodiversity & land use change (PI)	Ministry of Agriculture, NL

7. REFEREED PUBLICATIONS

Books

1. Johnston, R., Rosenberger, R., Rolfe, J., **Brouwer**, R. (eds) (2015). Benefit transfer of environmental and resource values: A guide for researchers and practitioners. Springer Publishers.
2. van Beukering, P.J.H., Papyrakis, E., Bouma, J, and **Brouwer**, R. (eds) (2013). Nature's wealth – the economics of ecosystem services and poverty. Cambridge: Cambridge University Press.
3. **Brouwer**, R. and Pearce, D.W. (eds) (2005). Cost-benefit analysis and water resources management. Cheltenham, UK: Edward Elgar Publishing.
4. Turner, R.K., van den Bergh, J. and **Brouwer**, R. (eds) (2003). Managing wetlands: an ecological-economics approach. Cheltenham, UK: Edward Elgar Publishing.

In preparation

Brouwer, R. (editor). Addressing Global Water Challenges: An Interdisciplinary Approach to Water Security. Cambridge University Press.

Book chapters

Forthcoming

- Lead author of one of the chapters in the International Nitrogen Assessment (INA) of the UNEP-CEH/GEF INMS Project set for publication by Cambridge University Press in 2023.
- Member of the International Association of Hydrological Sciences (IAHS) Advisory Board for the “Panta Rhei: Change in Hydrology and Society, 2013-2022” synthesis book.

Published

28. **Brouwer**, R. (2022). The economics of resource recovery. In: Pikaar, I. et al. (eds.). Resource Recovery from Water: Principles and Application. International Water Association (IWA) Publishing.
27. **Brouwer**, R. (2018). Payments for ecosystem services. In: Potschin, M., Haines-Young, R., Fish, R. and Turner, R.K. (eds). Handbook of Ecosystem Services. Routledge, London and New York.
26. **Brouwer**, R. and Navrud, S. (2015). The use of benefit transfer in Europe. In: Johnston, R., Rosenberger, R., Rolfe, J., Brouwer, R. (eds). Benefit Transfer of environmental and resource values: A guide for researchers and practitioners. Springer Publishers.
25. Rolfe, J. and **Brouwer**, R. (2015). Meta-analysis: Rationale, issues and applications. In: Johnston, R., Rosenberger, R., Rolfe, J., Brouwer, R. (eds). Benefit Transfer of environmental and resource values: A guide for researchers and practitioners. Springer Publishers.
24. Van Beukering, P.J.H., **Brouwer**, R. and Koetse, M.J. (2015). Economic values of ecosystem services. In: Bouma, J.A. and Beukering, P.J.H. (eds). Ecosystem services: from concept to practice. Cambridge University Press.

23. Koetse, M.J., **Brouwer**, R. and van Beukering, P.J.H. (2015). Economic valuation methods for ecosystem services. In: Bouma, J.A. and Beukering, P.J.H. (eds). *Ecosystem services: from concept to practice*. Cambridge University Press.
22. **Brouwer**, R. and Hassan, R. (2013). Water-related ecosystem services. In: van Beukering, P.J.H., Papyrakis, E., Bouma, J. and Brouwer, R. (eds). *Nature's wealth – the economics of ecosystem services and poverty*. Cambridge University Press.
21. van Beukering, P.J.H., Papyrakis, E., Bouma, J. and **Brouwer**, R. (2013). The economics of ecosystem services and poverty. In: van Beukering, P.J.H., Papyrakis, E., Bouma, J. and Brouwer, R. (eds). *Nature's wealth – the economics of ecosystem services and poverty*. Cambridge University Press.
20. Haque, A.K.E., Brander, L., **Brouwer**, R., Akter, S., Abdallah, W. and Mahmud, S. (2013). The environmental and economic impacts of flood defenses in rural Bangladesh. In: van Beukering, P.J.H., Papyrakis, E., Bouma, J. and Brouwer, R. (eds). *Nature's wealth – the economics of ecosystem services and poverty*. Cambridge University Press.
19. **Brouwer**, R. and Schaafsma, M. (2012). The Economics of Flood Disaster Management in the Netherlands. In: Guha Sapir, P., Santos, I. And Borde, A. (eds.). *Natural Disasters: Do They Cost the Earth?* Earthscan Publications.
18. **Brouwer**, R. And Georgiou, S. (2012). Economic Valuation. In: Dufour, A., Bartram, J., Bos, R. and Gannon, V. (eds). *Animal Waste, Water Quality and Human Health*. WHO and IWA Publishing.
17. **Brouwer**, R., Hess, S., Liu, Y., Garcia, S. and van Beukering, P. (2011). A Hedonic Price Model of Coral Reef Quality in Hawaii. In: Bennett, J. (ed). *The International Handbook on Nonmarket Environmental Valuation*. Edward Elgar Publishing.
16. **Brouwer**, R., Haider, W., Gunaratne, L., and Beardmore, B. (2010). A Choice Experiment of Human-Elephant Conflict Resolution in Sri Lanka. In: Ekin, B. and Bennett, J. (eds.). *Choice experiments in Developing Countries: Implementation, Challenges and Policy Implications*. Edward Elgar Publishing.
15. **Brouwer**, R. and van der Veeren, R. (2009). Costs and Benefits of Water Policy in the Netherlands. In: Folmer, H. and Reinhard, S. (eds.). *Water Problems and Policies in the Netherlands*. Resources for the Future. Washington DC.
14. **Brouwer**, R., Schenau, S. and van der Veeren, R. (2006). Scale Issues in Integrated Hydro-Economic River Basin Accounting. In: Pearce, D.W. (ed.). *Valuing the Environment in Developed Countries*. Edward Elgar Publishing, Cheltenham, UK.
13. **Brouwer**, R. (2006). Valuing Water Quality Changes in the Netherlands using Stated Preference Methods. In: Pearce, D.W. (ed.). *Valuing the environment in Developed Countries*. Edward Elgar Publishing, Cheltenham, UK.
12. **Brouwer**, R. and Pearce, D.W. (2005). Introduction. In: Brouwer, R. and Pearce, D.W. (eds.). *Cost-Benefit Analysis and Water Resources Management*. Edward Elgar Publishing, Cheltenham, UK.
11. **Brouwer**, R. and Bronda, R. (2005). The Costs and Benefits of the Revision of the European Bathing Water Directive in the Netherlands. In: Brouwer, R. and Pearce, D.W. (eds.). *Cost-Benefit Analysis and Water Resources Management*. Edward Elgar Publishing, Cheltenham, UK.

10. **Brouwer**, R. and Kind, J. (2005). The Costs and Benefits of Flood Control Policy in the Netherlands. In: Brouwer, R. and Pearce, D.W. (eds.). Cost-Benefit Analysis and Water Resources Management. Edward Elgar Publishing, Cheltenham, UK.
9. **Brouwer**, R., Langford IH, Bateman I.J. & Turner RK (2004). A Meta-Analysis of Wetland Contingent Valuation Studies. In: Turner, R.K., Georgiou, S. and Bateman, I.J. (eds.) Environmental Decision Making and Risk Management: Selected Essays by Ian H. Langford, Edward Elgar Publishing, Cheltenham, pp212-222.
8. **Brouwer**, R., Turner, R.K., Georgiou, S. and van den Bergh, J.C.J.M. (2003). Integrated Assessment as a Decision Support Tool. In: Turner, R.K., van den Bergh, J.C.J.M. and Brouwer, R. (eds.) Managing Wetlands: An Ecological Economics Approach, Edward Elgar, Cheltenham, pp108-129.
7. Turner R.K., **Brouwer**, R., Crowards, T.C. and Georgiou, S. (2003). The Economics of Wetland Management. In: Turner, R.K., van den Bergh, J.C.J.M. and Brouwer, R. (eds.) Managing Wetlands: An Ecological Economics Approach, Edward Elgar, Cheltenham, pp 108-129.
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