

Dale Scott Rothman

Curriculum Vitae

Personal Information/ Contact details

Home Address 2143 S. Corona St., Denver CO 80210-4515 USA
Mobile: +1 303 997 2678
E-mail drothma@gmu.edu
Skype DaleScott66
Date of Birth 21 August 1962
Nationality USA

Work Experience

Jul. 2020 - Present - **Term Associate Professor**, DEPARTMENT OF COMPUTATIONAL AND DATA SCIENCES, GEORGE MASON UNIVERSITY, Fairfax VA, USA.
Sep. 2009 - Present - **Associate Professor**, JOSEF KORBEL SCHOOL OF INTERNATIONAL STUDIES, UNIVERSITY OF DENVER, Denver CO, USA.
Jan. 2016 - Jul 2016 - **Visiting Researcher**, INSTITUTE FOR ENVIRONMENTAL SYSTEMS RESEARCH, UNIVERSITÄT OSNABRÜCK, Osnabrück, Germany.
Sep. 2009 - Jun. 2016 - **Associate Director/Senior Scientist**, FREDERICK S. PARDEE CENTER FOR INTERNATIONAL FUTURES, UNIVERSITY OF DENVER, Denver CO, USA.
Mar. 2007 - Jun. 2009 - **Adjunct Faculty**, JOSEF KORBEL SCHOOL OF INTERNATIONAL STUDIES, UNIVERSITY OF DENVER, Denver CO, USA.
Aug. 2008 - Aug. 2009 - **Research Associate**, FREDERICK S. PARDEE CENTER FOR INTERNATIONAL FUTURES, UNIVERSITY OF DENVER, Denver CO, USA.
Jul. 2008 - Jun. 2010 - **Associate**, INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT, Winnipeg MB, Canada.
Jul. 2008 - Aug. 2009 - **Independent Contractor and Sole Proprietor**, DSR SUSTAINABILITY RESEARCH, Winnipeg MB, Canada.
Jun. 2006 - Jul. 2008 - **Senior Researcher**, INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT, Winnipeg MB, Canada.
Jul. 2003 - Jun. 2006 - **Senior Researcher**, MACAULAY INSTITUTE, Aberdeen, UK.
Jul. 2000 - Jun. 2003 - **Senior Scientist**, INTERNATIONAL CENTRE FOR INTEGRATIVE STUDIES, UNIVERSITY OF MAASTRICHT, Maastricht, the Netherlands.

- Sep. 1998 – **Assistant Professor**, COLUMBIA UNIVERSITY BIOSPHERE 2 CENTER, Oracle
Feb. 2000 AZ, USA.
- May 1999 – **NWO Research Fellow**, INTERNATIONAL CENTRE FOR INTEGRATIVE STUDIES,
Aug. 1999 UNIVERSITY OF MAASTRICHT, Maastricht, the Netherlands.
- Jul. 1995 – **Research Associate and NSERC Post-Doctoral Fellow**, ENVIRONMENTAL
Aug. 1998 ADAPTATIONS RESEARCH GROUP, ENVIRONMENT CANADA AND SUSTAINABLE
DEVELOPMENT RESEARCH INSTITUTE, UNIVERSITY OF BRITISH COLUMBIA,
Vancouver BC, Canada.
- Jun. 1993 – **Research Associate**, WORLD RESOURCES INSTITUTE, Washington DC, USA.
Jun. 1995
- Summer 1991 **YSSP participant**, INTERNATIONAL INSTITUTE FOR APPLIED SYSTEMS ANAL-
YSIS, Laxenburg, Austria.
- Summer **Assistant Environmental and Resource Economist**, ARGONNE NATIONAL LAB-
1994, Jun. ORATORY, ENERGY AND ENVIRONMENTAL SYSTEMS DIVISION, Argonne IL,
1987 – Jul. USA.
1989
- Sep. 1986 – **Research Associate**, UNIVERSITY OF WISCONSIN-ENGINEERING EXTENSION,
Jun. 1987 DISASTER MANAGEMENT CENTER, Madison WI, USA.
- Sep. 1985 – **Environmental Engineer**, U.S. EPA MOTOR VEHICLE LABORATORY, STAN-
Aug. 1986 DARDS DEVELOPMENT AND SUPPORT BRANCH, Ann Arbor MI, USA.
- Summer 1983 **Student Intern**, BOARD OF ALDERMAN, CITY HALL, Louisville KY, USA.

Education

- Sep. 1989 – **Ph.D.**, *Department of Agricultural Economics, Cornell University, Ithaca NY USA.*
Jun. 1993
- Sep. 1985 – **M.Sc. (incomplete)**, *Institute for Environmental Studies, University of Wisconsin,*
Jun. 1987 *Madison WI, USA.*
- Sep. 1980 – **S.B.**, *Dept. of Earth, Atmospheric, and Planetary Sciences, Massachusetts Institute*
Jun. 1984 *of Technology, Cambridge MA, USA.*

PhD Dissertation and MS/MA Thesis Supervision

- Karen Buchsbaum (PhD, expected 2021), Antioch University New England,
- Amir Siraj (PhD, 2015), University of Denver, Department of Geography and Environment
- Kausiki Mukhopadhyay (PhD, 2014), University of Denver, Josef Korbel School of International Studies
- Sarah Nuernberger (MA, 2012), University of Denver, Josef Korbel School of International Studies
- Marie Doehne (MA, 2003), University of Maastricht, International Centre of Integrative Studies
- Katrin Fuhrmann (MA, 2003), University of Maastricht, International Centre of Integrative Studies
- Bjorn Caspers (MA, 2002), University of Maastricht, Department of Quantitative Economics
- Svein Erik Moen (MA, 2001) The European Inter-University Association on Society, Science and Technology
- Igor Matutinovic (PhD, 1999) University of Zagreb, Faculty of Economics

Additional Teaching Experience

University of Maastricht

- Lecturer and Course Co-ordinator: Ecology and Economics (Fall 2001, 2002)

University of British Columbia, Department of Geography

- Lecturer: Geography of Natural Hazards (Fall 1997)
- Lecturer: Geography and Resource Analysis (Spring 1998)

Cornell University

- Lecturer: Introductory Concepts of Mathematical Economics (Summer 1992)
- Teaching Assistant: Environmental and Natural Resource Economics (Spring 1991)
- Teaching Assistant: Mathematical Programming (Fall 1990)

Miscellaneous

- Invited Lecturer: Training course for the European Union's 6th Framework project SCENES (Water Scenarios for Europe and Neighbouring States) (Fall 2007)
- SENSE (Netherlands Research School for the Socio-Economic and Natural Sciences of the Environment)
- Invited Lecturer - S400 Issues in Quantitative Analysis and Modelling: Energy, Materials and Waste (Fall 2005)
- Invited Lecturer - S300 Integrated Assessment of Global Environmental Change (Spring 2003)
- Invited Lecturer: TIAS (The Integrated Assessment Society) Summer School on Integrated Assessment for Environmental Management (Summer 2004)
- Invited Lecturer/Facilitator: EU Advanced Summer Course in Integrated Assessment Methodology (Summer 2003)

Grant/Project Income and Activity

(where project leader or held other significant role)

- Jul. 2017 – Enhancing the profile of sustainable development at the Korb School of International Studies. Social Science Foundation Innovation Fund (PI); SSF (35K \$US)
- Sep. 2015 – The potential for aquaculture in Lake Victoria and implications for wild fisheries and fish commodity markets. NSF Coupled Natural and Human Systems (Co-PI): Aug. 2019 CNH-L (1.8 million \$US)
- Jan. – Dec. 2015 Strengthening Water for People's donor and program stakeholder engagement through water and sanitation forecasting (PI); Water for People (30K \$US)
- Oct. 2008 – Preparation of technical report and discussion paper integrating the conclusions of Dec. 2008 two CEC 2008 initiatives and present a matrix comparing the key environmental issues/trends against the highest potential policy domains for continental cooperation; for the North American Commission for Environmental Cooperation (25K \$CA)
- Jul. 2008 – Preparation of background report North American Environmental Outlook to 2030: Oct. 2008 Review of existing research for the North American Commission for Environmental Cooperation (14K \$CA)
- Jun. 2008 – Preparation of quantitative results for scenario chapter of Global Environmental Sep. 2008 Outlook for Latin America & the Caribbean (3.3K \$US)

- Jan. 2008 – Review of micro simulation, agent-based, and participatory modelling for potential
Apr. 2008 use by Agriculture and Agri-Food Canada (project leader, 10K \$CA)
- Dec. 2007 – Review of Canadian Environmental Sustainability Indicators initiative (project leader,
Apr. 2008 35K \$CA)
- Nov. 2007 – Review of environmental projections for North America and production of discussion
Apr. 2008 paper for June 2008 workshop of the North American Commission for Environmental
Cooperation (co-project leader, 35K \$CA)
- Oct. 2007 – Integrated Land Management Modelling: A component of Natural Resources
Nov. 2009 Canada's GEOConnections program (technical support to secretariat, 150K \$CA)
- Apr. 2007 – Prospects for Human Development - Volume 1: Reducing Global Poverty (contributor
Nov. 2007 exploration of links between environment & natural resources and poverty, 10K
\$US)
- Jun. 2006 – Canadian Environment Outlook (overall process design and project leadership, 100K
Mar. 2008 \$CA)
- Dec. 2004 – SENSOR - Sustainability Impact Assessment: Tools for Environmental, Social and
Nov. 2008 Economic Effects of Multifunctional Land Use in European Regions (contributor on
use of social indicators and public participation in impact assessment, 141K €)
- Jun. 2004 – Global Environment Outlook-4 (Coordinating Lead Author of Scenario Chapter,
Oct. 2007 approximately 1 million \$US)
- Dec. 2003 – SURPLUS - Appraisal of Sustainable Rural Policy and Land Use: Scoping Study for
May. 2005 Defra (co-Project leader, 50K £)
- Dec. 2002 – COST A22: Exploring New Ways to Explore the Future (member of Management
May. 2005 Committee and first Chair, 115K €)

Publications

Papers in Progress

Paris Is Burning: Quantifying Limits to Mitigation and Carbon Dioxide Removal (CDR). Implications for Technological and Societal Change, with Andrew Lockley and Jonathan Köhler. We contrast the implied rates of mitigation and CDR in recent scenario studies against rates suggested in the technological diffusion literature. This suggests that gaps exist in our ability to meet the Paris climate targets, calling for either risky technologies, e.g., solar geoengineering, or fundamental shifts in societal behavior. *submitted to Climatic Change*.

The Continuity Bias: A Failure of Imagination in Global Scenario Studies and Its Implications, with Paul Raskin, Kasper Kok, John Robinson, Jill Jäger, Barry Hughes, Paul Sutton. We review the history of global scenarios for social and environmental assessments, noting the general exclusion of surprises and discontinuities. We explore why this is the case and make suggestions as to how to address this issue.

Solar Geoengineering in the Context of SSPs, with Mariia Belaia and David W. Keith. We modify the DICE model to: 1) consider CDR and Solar Geoengineering as control options in addition to traditional mitigation and 2) read in exogenous assumptions. We compare the optimal portfolios under the five SSPs and consider their social and political feasibility in these worlds.

The Scenario House This is a thought piece that draws on personal experiences with developing and communicating long-term scenarios. The basic premise is that scenarios can be viewed as a

house (or museum), which can be seen in many ways depending upon which room you are in or which window you are looking in, but which should also be seen as an integral whole.

Peer Reviewed Journal Articles

- Elsawah, S., S. Hamilton, A. Jakeman, Dale S. Rothman, V. Schweizer, E. Trutnevyte, H. Carlsen, C. Drakes, B. Frame, B. Fu, C. Guivarch, M. Haasnoot, E. Kemp-Benedict, K. Kok, H. Kosow, M. Ryan, and H. van Delden. (2020). *Scenario processes for socio-environmental systems analysis of futures: A review of recent efforts and a salient research agenda for supporting decision making* Science of the Total Environment 79. doi:10.1016/j.scitotenv.2020.138393.
- Cradock-Henry, N. A., B. Frame, B. L. Preston, A. Reisinger, and Dale S. Rothman. (2018). *Dynamic Adaptive Pathways in Downscaled Climate Change Scenarios* Climatic Change 150(3): 333-341. doi:10.1007/s10584-018-2270-7.
- Kuhn, R., Dale S. Rothman, S. Turner, J. Solórzano, and B. Hughes. (2016). *Beyond Attributable Burden: Estimating the Avoidable Burden of Disease Associated with Household Air Pollution* PLOS ONE 11(3): e0149669, doi:10.1371/journal.pone.0149669
- Hughes, B. B., R. Kuhn, E. S. Margolese-Malin, Dale S. Rothman, and J. R. Solórzano. (2015). *Opportunities and Challenges of a World with Negligible Senescence* Technological Forecasting and Social Change 99 (October): 77-91. doi:10.1016/j.techfore.2015.06.031.
- O'Neill, B. C., E. Kriegler, K. L. Ebi, E. Kemp-Benedict, K. Riahi, Dale S. Rothman, B. J. van Ruijven, et al. (2015) *The Roads Ahead: Narratives for Shared Socioeconomic Pathways Describing World Futures in the 21st Century* Global Environmental Change. doi: 10.1016/j.gloenvcha.2015.01.004.
- Rothman, Dale S., P. Romero-Lankao, V. J. Schweizer, and B. A. Bee (2014). *Challenges To Adaptation: A Fundamental Concept for the Shared Socio-Economic Pathways and Beyond* Climatic Change 122(3): 495-507. doi:10.1007/s10584-013-0907-0.
- Birkmann, J., S. L. Cutter, Dale S. Rothman, T. Welle, M. Garschagen, B. van Ruijven, B. O'Neill, B. Preston, S. Kienberger, O. D. Cardona, T. Siagian, D. Hidayati, N. Setiadi, C. Binder, B. B. Hughes, R. Pulwarty (2014). *Scenarios for Vulnerability: Opportunities and Constraints in the Context of Climate Change and Disaster Risk* Climatic Change doi: 10.1007/s10584-013-0913-2
- van Ruijven, B. J., M. Levy, A. Agrawal, F. Biermann, J. Birkmann, T. R. Carter, K. L. Ebi, M. Garschagen, B. Jones, R. Jones, E. Kemp-Benedict, M. Kok, K. Kok, M. C. Lemos, P. L. Lucas, B. Orlove, S. Pachauri, T. Parris, A. Patwardhan, A. Petersen, B. L. Preston, J. Ribot, Dale S. Rothman, and V. J. Schweizer (2014). *Enhancing the Relevance of Shared Socioeconomic Pathways for Climate Change Impacts, Adaptation and Vulnerability Research* Climatic Change 122(3): 481-494
- Hughes, Barry B., Mohammad T. Irfan, Jonathan D. Moyer, Dale S. Rothman, and José R. Solórzano. (2012). *Exploring Future Impacts of Environmental Constraints on Human Development*. Sustainability 4 (5): 958-94. doi:10.3390/su4050958
- Hughes, Barry B, Randall Kuhn, Cecilia M Peterson, Dale S Rothman, José R Solórzano, Colin D Mathers, and Janet R Dickson (2011). *Projections of Global Health Outcomes from 2005 to 2060 Using the International Futures Integrated Forecasting Model* Bulletin of the World Health Organization 89(7): 478-486.
- Rothman, Dale S., C. van Bers, J. Bakkes, and C. Pahl-Wostl (2009). *How to Make Global Assessments More Effective: Lessons from the Assessment Community* Current Opinion in Environmental Sustainability 1(2): 214-218. doi:10.1016/j.cosust.2009.09.002
- Newig, J., H. Haberl, H., C. Pahl-Wostl, and Dale S. Rothman (2008). *Formalised and Non-Formalised Methods in Resource Management - Knowledge and Social Learning in Participatory*

- Processes: An Introduction*, Systemic Practice and Action Research 21(6): 380-388.
- Svarstad, H., L.K. Petersen, Dale S. Rothman, H. Siepel, and Frank Wätzold (2008). *Discursive biases of the environmental research framework DPSIR* Land Use Policy 5(1): 116-125.
- Patel, M., K. Kok, and Dale S. Rothman (2007). *Participatory scenario construction in land use analysis: An insight into the experiences and opportunities created by stakeholder involvement in the Northern Mediterranean* Land Use Policy 24(3): 546-561.
- Kok, K., M. Patel, D. S. Rothman and G. Quaranta (2006). *Multi-scale narratives from an IA perspective: Part II. Participatory local scenario development*, Futures 38(3): 285-311.
- Kok, K., D. S. Rothman and M. Patel (2006). *Multi-scale narratives from an IA perspective: Part I. European and Mediterranean scenario development*, Futures 38(3): 261-284.
- Polatidis, H., D. A. Haralambopoulos, R. Kemp, and Dale S. Rothman (2003). *Creating an energy system that we want but don't know yet, using Integrated Assessment, Transition Management and Multi-Criteria Analysis*, Integrated Assessment 4(3): 205-213.
- van Notten, Philip W. F., Jan Rotmans, Marjolein B. A. van Asselt, and Dale S. Rothman (2003). *An updated scenario typology*, Futures, 35(5): 423-443.
- Rotmans, J., M.B.A. van Asselt, C. Anastasi, S.C.H. Greeuw, J. Mellors, S. Peters, Dale S. Rothman, and N. Rijkens, (2000). *Visions for a sustainable Europe*, Futures, 2(9/10), pp.809 - 831.
- Rothman, Dale S. (2000) *Measuring Environmental Values and Environmental Impacts: Going from the Local to the Global*, Climatic Change 44(3), pp.351-376.
- Demeritt, David and Dale S. Rothman (1999) *Figuring the Costs of Climate Change: An Assessment and Critique*, Environment & Planning A, 31, pp.389-408.
- Cohen, Stewart, David Demeritt, John Robinson, and Dale S. Rothman (1998) *Climate Change and Sustainable Development*, Global Environmental Change, 8(4), pp.341-371.
- Demeritt, David and Dale S. Rothman (1998) *Comments on J.B. Smith (Climatic Change 32, 313-26) and the Aggregation of Climate Change Damage Costs*, Climatic Change, 40(3/4), pp.699-704.
- Rothman, Dale S. (1998) *Environmental Kuznets Curves - Real Progress or Passing The Buck? A Case for Consumption-Based Approaches*, Ecological Economics, 25(2), pp. 177-194.
- Rothman, Dale S. and Sander de Bruyn (1998) *The Environmental Kuznets Curve Hypothesis Revised*, Ecological Economics, 25(2), pp. 143-146.
- Peterson, Garry, Giulio A. De Leo, Jessica J. Hellmann, Marco A. Janssen, Ann Kinzig, Jay R. Malcolm, Karen L. O'Brien, Shealagh E. Pope, Dale S. Rothman, Elena Shevliakova, and Robert R.T. Tinch (1997) *Uncertainty, Climate Change, & Adaptive Management* Conservation Ecology, 1(2): 4.10, URL: <http://www.consecol.org/vol1/iss2/art4>
- Repetto, Robert, Dale S. Rothman, Paul Faeth and Duncan Austin (1997) *Productivity Measures Miss the Value of Environmental Protection*, Choices, Fourth Quarter, pp 16-19.
- Repetto, Robert, Dale S. Rothman, and Duncan Austin (1997) *Has Environmental Protection Really Reduced Productivity Growth?* Challenge, 40(1), pp. 46-57.
- Rothman, Dale S. and John Robinson (1997) *Growing Pains: A Conceptual Framework for Considering Integrated Assessment*, Environmental Monitoring & Assessment, 46(1-2), pp.23-43.
- Rothman, Dale S., Jong Ho Hong, and Timothy D. Mount (1994) *Estimating Consumer Energy Demand Using International Data: Theoretical and Policy Implications*, The Energy Journal, 15(2), pp.67-88. (Received George F. Warren Award for distinguished research publication, Cornell University, Department of Agricultural, Resource, and Managerial Economics, 1994; and earlier version appeared as Rothman, Dale S., Jong Ho Hong, and Timothy D. Mount. *Price and Income Elasticities for Consumer Energy Demand: The Importance of Model Forms and Income*

Changes, Proceedings of the North American Conference of the International Association for Energy Economics, October 26-28, 1992.)

Rothman, Dale S. and Duane Chapman (1993) *A Critical Analysis of Climate Change Policy Research*, Contemporary Policy Issues, XI(1), pp. 88-98. (an earlier version appeared in James C. White ed., Global Climate Change: The Economic Costs of Mitigation and Adaptation Proceedings of a Conference Sponsored by Center for Environmental Information, Inc. New York: Elsevier Science Publishing Co., Inc., 1991. pp. 285-302.)

Books and Edited Volumes

Rothman, Dale S., Mohammad T. Irfan, Eli S. Margolis-Malin, Barry B. Hughes, and Jonathan D. Moyer (2013) Building Global Infrastructure: Patterns of Potential Human Progress Volume 4, Boulder, CO, and New Delhi, India: Paradigm Publishers and Oxford University Press.

Hughes, Barry B., Randall Kuhn, Cecilia Peterson, Dale S. Rothman, Jose Roberto Solórzano, and Janet R. Dickson (2011). Improving Global Health: Patterns of Potential Human Progress Volume 3, Boulder, CO, and New Delhi, India: Paradigm Publishers and Oxford University Press.

Hughes, Barry B., Mohammad T. Irfan, Haider Khan, Krishna B. Kumar, Dale S. Rothman, and José R. Solórzano (2009). Reducing Global Poverty: Patterns of Potential Human Progress Volume 1, Boulder, CO, and New Delhi, India: Paradigm Publishers and Oxford University Press.

Rotmans, Jan, M. van Asselt, and Dale S. Rothman (2005) Scenario Innovation: Experiences from a European Experimental Garden, London: Taylor & Francis.

Rotmans, Jan and Dale S. Rothman (eds.) (2003). Scaling Issues in Integrated Assessment Linne, The Netherlands: Swets & Zeitlinger Publishers. Lisse, The Netherlands: Swets & Zeitlinger Publishers.

Rothman, Dale S. and Richard B. Howarth (eds.) (2003). Climate Change and Ecological Economics, International Journal of Sustainable Development, 6(3).

Rothman, Dale S. (eds.) (2002) Scaling in Integrated Assessment, Integrated Assessment, 3(2-3).

Rothman, Dale S. and Sander de Bruyn (eds.) (1998). Environmental Kuznets Curves, Ecological Economics 25(2).

Book Chapters

Bowen, Robert and Dale S. Rothman (2014). Frameworks of Integrating Human Influence and Environmental Change, in R. E. Bowen, M. H. Depledge, L. E. Fleming, and C. P. Carlarne (eds.) Oceans and Human Health: Implications for Society and Wellbeing, Chichester, UK: Wiley-Blackwell.

Bazilian, M., R. Economy, P. Nussbaumer, E. Haites, K. K. Yumkella, M. Howells, M. Takada, Dale S. Rothman (forthcoming in 2014). The Scale of Investment for Universal Energy Access Revisited: Beyond Basic Access, in A. Halff, B. Sovacool, and J. Rozhon (eds.) Energy Poverty: Global Challenges and Local Solutions., Oxford University Press: Oxford.

Jäger, J. Dale S. Rothman, C. Anastasi, S. Kartha, and P. van Nooten (2008). Scenario Development and Analysis, in L. Pintr, D. Swanson, and J. Chenje (eds.) IEA Training Manual: A Training Manual on Integrated Environmental Assessment and Reporting, Nairobi: United Nations Environment Programme.

Rothman, Dale S. (2008): A Survey of Environmental Scenarios, in Joseph Alcamo (ed.) Environmental Futures: The Practice of Environmental Scenario Analysis. Elsevier: Amsterdam, pp. 37-65.

Farrington, J. H., T. Kuhlman, Dale S. Rothman, Z. Imrichova, L. Reid, and E. Konkoly Gyuro

- (2008): Reflections on Social and Economic Indicators for Land Use Change, in K. Helming, M. P. Pérez-Soba, and P. Tabbush (eds.). Sustainability Impact Assessment of Land Use Changes, Springer: Berlin, pp. 325-347.
- Rothman, Dale S., John Agard, and Joseph Alcamo (2007): The Future Today, in United Nations Environment Programme (eds.). Global Environment Outlook 4, UNEP: Nairobi. pp. 397-454
- Rothman, Dale S. (2006): "Scenarios: Structured Thinking about the Future", in P. Valkering, B. Amelung, R. van der Brugge, and J. Rotmans (eds.). Puzzle-solving for policy II: Proceedings of the EU Advanced Summer Course in Integrated Assessment methodology, 1 -12 September 2003, Maastricht, The Netherlands: International Center for Integrative Studies, pp. 92-102.
- Alcamo, Joseph, Kasper Kok, Gerald Busch, Jörg A. Priess, Bas Eickhout, Mark Rounsevell, Dale S. Rothman, and Maik Heistermann. 2006. Searching for the Future of Land: Scenarios from the Local to Global Scale. In Eric F. Lambin and Helmut Geist (eds.), Land-Use and Land-Cover Change: Local Processes and Global Impacts. Global Change - The IGBP Series. Berlin: Springer. pp. 137-155.
- Yohe, G., W.N. Adger, H. Dowlatabadi, K. Ebi, S. Huq, D. Moran, Dale S. Rothman, K. Strzepek, and G. Ziervogel (2005): Recognizing Uncertainties in Evaluating Responses, in Millennium Ecosystem Assessment (ed.) Ecosystems and Human Well-being: Policy Responses, Volume 3. pp. 95-116.
- Rothman, Dale S., John B. Robinson, and Dave Biggs, (2002): "Signs of Life: Linking Indicators and Models in the Context of QUEST." in: Hussein Abaza and Andrea Baranzini (eds), Implementing Sustainable Development. Integrated Assessment and Participatory Decision-Making Processes. Cheltenham (UK): Edward Elgar. pp. 182-199.
- Amelung, Bas, Pim Martens, Jan Rotmans, and Dale S. Rothman, (2002): Tourism in motion: is the sky the limit? in: Pim Martens and Jan Rotmans. (eds.), Transitions in a globalising world. Linne, The Netherlands: Swets & Zeitlinger Publishers. pp. 85-10.
- Martens, Pim, Jan Rotmans, and Dale S. Rothman, (2001): Integrated assessment modelling of human health. in: Pim Martens and Anthony J. McMichael (eds.), Environmental change, climate and health: Issues and research methods. Cambridge: Cambridge University Press. pp. 197-225.
- Rothman, Dale S. and Robert Coppock (1995) Scenarios of Sustainability: The Challenge of Describing Desirable Futures, in Thomas E. Downing (ed.) Climate Change and World Food Security, Berlin: Springer-Verlag. pp. 277-288.

Book Reviews

- Jill Jäger and Sarah Cornell, (eds.), The Planet in 2050: The Lund Discourse of the Future, Routledge, London and New York (2011) ISBN: 978-0-415-59000-6, 105 pp. in *TIAS Quarterly* No. 1/2001: 5.
- Felix Rauschmayer, Ines Omann and Johannes Frühmann, Editors, Sustainable Development: Capabilities, Needs, and Well-Being, Routledge, London and New York (2011) ISBN 978-0-415-58652-8, 167 pp. in *Ecological Economics* 70(9): 1701.

Other Publications

- Rothman, Dale S. and P. J. Oesterling (2016). *Strengthening Water For People's Donor and Program Stakeholder Engagement through Water and Sanitation Forecasting* Final Report. Denver, CO: Frederick S. Pardee Center for International Futures.
- Hedden, S., Rothman, B. B. Hughes, Dale S. Rothman, A. J. Markle, and J. Maweni (2016). *Ending Hunger in Africa: The Elimination of Hunger and Food Insecurity on the African Continent by*

- 2025 Final Report. Denver, CO: Frederick S. Pardee Center for International Futures.
- Hughes, B. B. and Dale S. Rothman (2014). *IFs Agriculture Model Documentation* Working Paper. Denver, CO: Frederick S. Pardee Center for International Futures.
- Hughes, B. B., J. S. Solórzano, and Dale S. Rothman (2014). *IFs Energy Model Documentation* Working Paper. Denver, CO: Frederick S. Pardee Center for International Futures.
- Bizikova, L., Dale S. Rothman, S. Boardley, S. Mead, and A. T. Kuriakose (2014). *Participatory Scenario Development and Future Visioning in Adaptation Planning: Lessons from Experience Part I*. Working Paper. Winnipeg, MB: International Institute for Sustainable Development.
- Rothman, Dale S. and M. T. Irfan (2013). *IFs Infrastructure Model Documentation* Working Paper. Denver, CO: Frederick S. Pardee Center for International Futures.
- CEC (2010). *North American Environmental Outlook to 2030, Commission for Environmental Cooperation*, Montreal Canada. (I was the lead consultant and primary author, although name credit was not explicitly given.)
- Rothman, Dale S., M. Eames, K. Dahlstrom, K. Thomson, A. Gelan, G. Schwarz, N. Gotts, and R. Tinch (2005) *Appraisal of Sustainable Rural Policy And Land Use (SURPLUS), Scoping Study*, Final Report to Defra and HM Treasury, London UK.
- Greeuw, S., M. van Asselt, J. Grosskurth, C. Storms, N. Rijkens-Klomp, Dale S. Rothman, and J. Rotmans (2000) *loudy crystal balls: An assessment of recent European and global scenario studies and models*, Experts' corner report: Prospects and scenarios No 4, European Environment Agency (EEA), Kopenhagen, Denmark.
- Bakkes, J.A. and Dale S. Rothman (2000) *Building blocks for European elaboration of GEO-3 scenarios*, working paper for the UNEP meeting in Cambridge, UK, on the GEO-3 outlook chapter, September.
- Bakkes, J.A., C.G.M. Klein Goldewijk, J.R.Meijer, Dale S. Rothman, H.J.M. de Vries, and J.W. van Woerden (2000) *Insights for the third Global Environment Outlook from related global scenario analyses* Working paper for GEO-3, RIVM report 402001017, Global Dynamics and Sustainable Development Programme, GLOBO REPORT SERIES NO. 28, September.
- Bakkes, J.A, J. Grosskurth, A.M Idenburg, Dale S. Rothman, and D. P. van Vuuren (2000) *Descriptions of selected global models for scenario studies on environmentally sustainable development*, RIVM report 402001018, Global Dynamics and Sustainable Development Programme, GLOBO REPORT SERIES No. 30, October.
- Rothman, Dale S. (2000) *Estimating Ancillary Impacts, Benefits and Costs on Ecosystems from Proposed GHG Mitigation Policies in IPCC* Workshop on Assessing the Ancillary Benefits and Costs of Greenhouse Gas Mitigation Strategies 27-29 March 2000, Washington, DC, United States, pp.191-210.
- Rothman, Dale S., David Demeritt, Quentin Chiotti, and Ian Burton (1998) *Costing Climate Change: The Economics of Adaptations and Residual Impacts for Canada* in the volumes of the Canada Country Study: Climate Impacts and Adaptation.
- Cohen, Stewart J., John B. Robinson, Dale S. Rothman, and David Demeritt (1998) *Climate Change and Sustainable Development*, in the volumes of the Canada Country Study: Climate Impacts and Adaptation.
- Rothman, Dale S. and Deborah Herbert (1997) *he Socio-Economic Implications of Changing Climate in the Forest Sector of the Mackenzie Basin*, in Stewart J. Cohen (ed.) *Mackenzie Basin Impact Study - Final Report*, Downsview Ontario: Environment Canada. pp. 225-241.
- Repetto, Robert, Dale S. Rothman, Paul Faeth, and Duncan Austin (1996) *Has Environmental Protection Really Reduced Productivity Growth?* World Resources Institute.

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Professional Affiliations

- International Society for Ecological Economics
- US Society for Ecological Economics
- The Integrated Assessment Society (member of Advisory Board and past vice-President)
- Integrated Assessment Modeling Consortium
- System Dynamics Society
- Human Development and Capability Association

Languages

- English: Mother tongue
- Spanish: Intermediate
- German, Dutch: Basic

Computer Skills

- Operating Systems: Apple OS, Windows
- Software: Microsoft Office suite, VenSim, Stella, NetLogo, Tableau, JMP, LaTeX

- Languages: Visual Basic, Julia, Python, R

Other

- Reviewer for, *inter alia*, Ecological Economics, International Journal of Environmental Research and Public Health, Global Environmental Change, Climatic Change, Futures, Technological Foresight and Social Change, Environmental Research Letters, Ecology and Society, and Environment and Planning
- Previously editor for Ecological Economics
- Member of Editorial Board for Journal of Integrative Environmental Sciences, Sustainability
- Member of Organizing Committee, Community Climate Intervention Strategies workshop, NCAR, Boulder CO USA, 26-28 October 2020