SHORT CURRICULUM VITAE

G. Cornelis van Kooten

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PRESENT POSITION:

Professor of Economics & Canada Research Chair (Environ Studies & Climate), University of Victoria Adjunct Professor, Institute for Integrated Energy Systems, University of Victoria

CITIZENSHIP: Dutch & Canadian

EDUCATION:

B.Sc. (with distinction), (Geophysics), University of Alberta, 1972

M.A. (Economics), University of Alberta, 1974

Ph.D. (Agricultural & Resource Economics), Oregon State University, 1982.

PROFESSIONAL MEMBERSHIPS:

Agricultural & Applied Economics Association (AAEA) Canadian Agricultural Economics Society (CAES)

PREVIOUS EMPLOYMENT:

Professor & Chair, Applied Economics & Statistics, University of Nevada, Reno, 2000-2002.

Professor & Head, Agricultural Economics, University of British Columbia, 1989-2001.

Professor, Department of Forest Resources Management, University of British Columbia, 1990-2001.

Associate Professor, School of Management & Organisation, University of Groningen, NL, 1988-89

Associate Professor, Agricultural Economics, University of Saskatchewan, Saskatoon, 1981-1989.

Associate Professor (part time), Agricultural Economics, University of Wageningen and Research Centre, Wageningen, Netherlands, 1996-2017

FELLOWSHIPS

Fellow of the Canadian Agricultural Economics Society (2012)\

Senior Fellow, Fraser Institute, Vancouver, Canada

Senior Fellow, Cornwall Alliance for the Stewardship of Creation, U.S.A.

BRIEF SUMMARY:

G. Cornelis van Kooten has more than thirty years of experience in natural resource economics, including agricultural and forest economics, land-use management, mathematical programming, and, most recently, the economics of renewable energy and climate. His interests range from agricultural and forest economics to development economics and computational economics. He has published more than 230 peer-reviewed journal articles and 56 book chapters; he is the author or co-author of two books on climate economics, three books on land and forest economics, two books on agricultural policy, and co-editor of four books. His book with Erwin H. Bulte entitled *The Economics of Nature* (Blackwell, 2000) is considered a classic reference book for researchers in the field of wildlife and public land economics, and his 1995 paper in the

American Journal of Agricultural Economics on the uptake of carbon in forest ecosystems is the standard reference for work in the field of terrestrial carbon offsets.

Dr. van Kooten has been a consultant to various governments and government agencies, the United Nations, the World Bank, the European Union, and a variety of non-governmental organizations, including the International Fund for Animal Welfare and the WWF. His numerous graduate students have gone on to work in the private sector, academia and government. He earned the Canadian Agricultural Economics Society's Publication of Enduring Quality Award in 2011; in 2014, he won the Faculty of Social Sciences' Research Excellence Award.

GRADUATE SUPERVISION

PhDs: 6 in Economics, 5 in Agricultural Economics, 4 in Forest Resources Management, 1 in Resource Management and Environmental Science, 3 in Geography, and 3 in progress

Masters: 23 MA essays (Economics), 2 MA theses (Economics), 3 MEng thesis (Mechanical Engineering), 19 MSc theses (Agricultural Economics), 3 MSc theses (Forest Resources Management), and 3 MBA projects (Business).

Post-doctoral fellows: 4

RESEARCH GRANTS AND CONTRACTS:

Approximately \$3.5 million in grants and contracts since 2002.

SELECTED PUBLICATIONS:

Google Scholar page: https://scholar.google.ca/citations?user=9OgXFpAAAAJ&hl=en

Books: Selected (Total = 12)

Schmitz, A, C Moss, T Schmitz, GC van Kooten & C Schmitz, 2022. *Agricultural Policy, Agribusiness and Rent Seeking Behavior*. 3rd edition. Toronto, ON: University of Toronto Press.

van Kooten, GC, 2021. *Applied Welfare Economics, Trade and Agricultural Policy Analysis*. Toronto, ON: University of Toronto Press.

van Kooten, GC & L Voss (editors), 2021. *International Trade in Forest Products: Lumber Trade Disputes, Models and Examples.* Wallingford, UK: CAB International.

van Kooten, GC, 2013. Climate Change, Climate Science and Economics: Prospects for a Renewable Energy Future. Dordrecht, NL: Springer.

van Kooten, GC & H Folmer, 2004. Land and Forest Economics. Cheltenham, UK: Edward Elgar.

van Kooten, GC & EH Bulte, 2000. *The Economics of Nature: Managing Biological Assets*. Oxford, UK: Blackwell Publishers.

van Kooten, GC, 1993. Land Resource Economics and Sustainable Development: Economic Policies and the Common Good. Vancouver: UBC Press.

Articles in Refereed Journals: Selected Since 2006 (Total = 235)

Russell, AR, GC van Kooten, JG Izett & ME Eiswerth, 2021. Damage Functions and the Social Cost of Carbon: Addressing Uncertainty in Estimating the Economic Consequences of Mitigating Climate Change, *Environmental Management* DOI: 10.1007/s00267-022-01608-9.

van Kooten, GC & A Schmitz, 2022. COVID-19 Impacts on U.S. Lumber Markets, Forest Policy and Economics 135: 102665. https://doi.org/10.1016/j.forpol.2021.102665.

van Kooten, GC, P Withey & CMT Johnston, 2021. Climate Urgency and the Timing of Carbon Fluxes, *Biomass and Bioenergy* 151: 106162. https://doi.org/10.1016/j.biombioe.2021.106162.

Howard, C, CC Dymond, VC Griess, D Tolkien-Spurr & GC van Kooten, 2021. Wood Product Carbon Substitution Benefits: A Critical Review of Assumptions, *Carbon Balance and Management* Accepted.

Li, X, F Mokhtarzadeh and GC van Kooten, 2021. A Gravity Model of Softwood Lumber Trade: An Application to the Canada-U.S. Trade Dispute, *Journal of Forest Economics* 36(4): 351-381. http://dx.doi.org/10.1561/112.00000534.

McLachlan, B, GC van Kooten & Z. Zheng, 2020. Country-level Climate-crop Yield Relationships and the Impacts of Climate Change on Food Security, *SN Applied Science* DOI: 10.1007/s42452-020-03432-4.

- van Kooten, GC, 2020. How effective are Forests in Mitigating Climate Change? *Forest Policy & Economics* https://doi.org/10.1016/j.forpol.2020.102295.
- Duan, J, GC van Kooten & X Liu, 2020. Renewable Electricity Grids, Battery Storage and Missing Money, *Resources, Conservation & Recycling* 161: 105001.
- Liu, X, J Duan & GC van Kooten, 2020. Calibration of Agricultural Risk Programming Models Using Positive Mathematical Programming, *Australian J of Agricultural & Resource Economics* 64:795-817.
- Gallant, K, P Withey, D Risk, GC van Kooten & L Spafford, 2020. Measurement and Economic Valuation of Carbon Sequestration in Nova Scotian Wetlands, *Ecological Economics* 171: 106619.
- van Kooten, GC, 2020. Reforming Canada's Dairy Sector: USMCA and the Issue of Compensation, *Applied Economics and Policy Perspectives* 42(3): 542-558. doi:10.1093/aepp/ppy038.
- van Kooten, GC, P Withey & J Duan, 2020. How big a Battery? Renewable Energy 146: 196-204.
- Siebel-McKenna, A, CMT Johnston & GC van Kooten, 2020. Knock on Wood: The Effects of Suboptimal Decision-making on Forest Carbon Sequestration in the Presence of Uncertainty in Wildfire Risk, *Spatial Economic Analysis* 15(3): 299–310.
- van Kooten, GC, A Schmitz & PL Kennedy, 2019. Is Commodity Storage an Option for Enhancing Food Security in Developing Countries? *J of Agricultural & Food Industrial Organization. Special Issue on Food Stocks and Food Security* 18(1): 2019054. DOI: 10.1515/jafio-2019-0054.
- Kennedy, PL, A Schmitz & GC van Kooten, 2019. The Role of Storage and Trade in Food Security, *J of Agricultural & Food Industrial Organization. Special Issue on Food Stocks and Food Security* 18(1): 20190056. DOI: 10.1515/jafio-2019-0056.
- Eiswerth, ME & GC van Kooten, 2019. Maximizing Returns from Payments for Ecosystem Services: Incorporating Externality Effects of Land Management, *Journal of the American Water Resources Association* 1-14. https://doi.org/10.1111/1752-1688.12788.
- van Kooten, GC, CMT Johnston & F Mokhtarzadeh, 2019. Carbon Uptake and Forest Management under Uncertainty: Why Natural Disturbance Matters, *Journal of Forest Economics* 34(1-2): 159-185.
- van Asseldonk, M, R Jongeneel, GC van Kooten & J Cordier, 2019. Agricultural Risk Management in the European Union: A Proposal to Facilitate Precautionary Saving, *EuroChoices* 18(2): 40-46.
- van Kooten, GC & F Mokhtarzadeh, 2019. Optimal Investment in Electric Generating Capacity under Climate Policy, *Journal of Environmental Management* 232(15 Feb): 66-72.
- van Kooten, GC, M Nijnik & K Bradford, 2019. Can Carbon Accounting Promote Economic Development in Forest-Dependent, Indigenous Communities? *Forest Policy and Economics* 100: 68-74.
- van Kooten, GC, 2018. The Challenge of Mitigating Climate Change through Forestry Activities: What Are the Rules of the Game? *Ecological Economics* 146: 35-43.
- Liu, XS, J Duan & GC van Kooten, 2018. The Impact of Changes in the AgriStability Program on Crop Activities: A Farm Modeling Approach, *Agribusiness* 34(3): 650-667.
- Gebregziabher, Z, GC van Kooten & D van Soest, 2017. Technological Innovation and Dispersion: Environmental Benefits and the Adoption of Improved Biomass Cookstoves in Tigrai, Northern Ethiopia, *Energy Economics* 67: 337-345.
- van Kooten, GC, 2017. Forest Carbon Offsets and Carbon Emissions Trading: Problems of Contracting, *Forest Policy and Economics* 75: 83-88.
- van Kooten, GC, 2017. California Dreaming: The Economics of Renewable Energy, *Canadian Journal of Agricultural Economics* 65(1): 19-41.
- Johnston, CMT & GC van Kooten, 2017. Impact of Inefficient Quota Allocation under the Canada-U.S. Softwood Lumber Dispute: A Calibrated Mixed Complementarity Approach, *Forest Policy and Economics* 74: 71-80.
- van Kooten, GC, J Duan & R Lynch, 2016. Is There a Future for Nuclear Power? Wind and Emission Reduction Targets in Fossil-Fuel Alberta, *PLoS ONE* 11(11): e0165822.
- van Kooten, GC, 2016. The Economics of Wind Power, *Annual Review of Resource Economics* 8(1): 181-205.

van Kooten, GC & CMT Johnston, 2016. The Economics of Forest Carbon Offsets, *Annual Review of Resource Economics* 8(1): 227-246.

- Johnston, CMT & GC van Kooten, 2016. Global Trade Impacts of Increasing Europe's Bioenergy Demand, Journal of Forest Economics 23: 27-44.
- Johnston, CMT & GC van Kooten, 2015. Back to the Past: Burning Wood to Save the Globe, *Ecological Economics* 120(December): 185-193.
- Sun, B & GC van Kooten, 2015. Financial Weather Derivatives for Corn Production in Northern China: A Comparison of Pricing Methods, *Journal of Empirical Finance* 32: 201-209.
- Johnston, CMT & GC van Kooten, 2015. Economics of Co-firing Coal and Biomass: An Application to Western Canada, *Energy Economics* 48:7-17.
- Eagle, A, D Eagle, T Stobbe & GC van Kooten, 2015. Farmland Protection and Agricultural Land Values at the Urban-Rural Fringe: British Columbia's Agricultural Land Reserve in British Columbia, *American Journal of Agricultural Economics* 97(1): 282-298.
- van Kooten, GC, T Bogle & F de Vries, 2015. Forest Carbon Offsets Revisited: Shedding Light on Darkwoods, *Forest Science* 61(2): 370-380.
- Bogle, T & GC van Kooten, 2015. Protecting Timber Supply on Public Land in Response to Catastrophic Natural Disturbance: A Principal-Agent Problem, *Forest Science* 61(1): 83-92.
- van Kooten, GC, 2014. The Benefits of Impeding Free Trade: Revisiting British Columbia's Restrictions on Log Exports, *Journal of Forest Economics* 20(4): 333-347.
- Johnston, CMT & GC van Kooten, 2014. Economic Consequences of Increased Bioenergy Demand, *The Forestry Chronicle* 90(5): 636-642.
- Xu, Z & GC van Kooten, 2014. The El Niño Southern Oscillation Index and Wildfire Prediction in British Columbia, *The Forestry Chronicle* 90(5): 592-598.
- Sun, B, C Guo & GC van Kooten, 2014. Hedging Weather Risk for Corn Production in Northeastern China: Efficiency of Weather Derivatives, *Agricultural Finance Review* 74(4): 555-572.
- Withey, P & GC van Kooten, 2014. Wetlands Retention and Optimal Management of Waterfowl Habitat under Climate Change, *J of Agricultural and Resource Economics* 39(1): 1-18.
- van Kooten, GC & CMT Johnston, 2014. Global Impacts of Russian Log Export Restrictions and the Canada-U.S. Lumber Dispute: Modeling Trade in Logs and Lumber, *Forest Policy and Economics* 39(Feb): 54-66.
- Sun, B & GC van Kooten, 2014. Weather Effects on Maize Yields in Northern China, *The Journal of Agricultural Science* 152(04): 523-533. doi:10.1017/S0021859613000142.
- Timilsina, GR, GC van Kooten & PA Narbel, 2013. Global Wind Power Development: Economics and Policies, *Energy Policy* 61: 642-652.
- Sopinka, A, GC van Kooten & L Wong, 2013. Reconciling Self-sufficiency and Renewable Energy Targets in a Hydro Dominated System: The View from British Columbia. *Energy Policy* 61: 223-229.
- Gebreegziabher, Z. & GC van Kooten, 2013. Does Community and Household Tree Planting Imply Increased Use of Wood for Fuel? Evidence from Ethiopia, *Forest Policy & Economics* 34: 30-40.
- Withey, P. & GC van Kooten, 2013. The Effect of Climate Change on Wetlands and Waterfowl in Western Canada: Incorporating Cropping Decisions into a Bioeconomic Model, *Natural Resource Modeling* 26(3 August): 305-330.
- van Kooten, GC, C. Johnston & L. Wong, 2013. Wind versus Nuclear Options for Generating Electricity in a Carbon-Constrained World: Strategizing in an Energy-Rich Economy, *American J Agricultural Economics* 95(2): 505-511.
- Bogle, T.N. & GC van Kooten, 2013. Options for Maintaining Forest Productivity after Natural Disturbance: A Principal-Agent Approach, *Forest Policy & Economics* 26(1): 138-144.
- Wong, L., GC van Kooten & J.A. Clarke, 2012. The Impact of Agriculture on Waterfowl Abundance: Evidence from Panel Data, *J of Agricultural & Resource Economics* 37(2): 321-334.
- Bogle, T.N. & GC van Kooten, 2012. Why Mountain Pine Beetle Exacerbates a Principal-Agent Relationship: Exploring Strategic Policy Responses to Beetle Attack in a Mixed Species Forest, *Canadian J of Forest Research* 42(3): 621-630.

Scorah, H, A Sopinka & GC van Kooten, 2012. The Economics of Storage, Transmission and Drought: Integrating Variable Wind Power into Spatially Separated Electricity Grids, *Energy Economics* 34(2): 536-541.

- Niquidet, K, B Stennes & GC van Kooten, 2012. Bio-energy from Mountain Pine Beetle Timber and Forest Residuals: The Economics Story, *Canadian J of Agricultural Economics* 60(2): 195-210.
- Cotteleer, G & GC van Kooten, 2012. Expert Opinion versus Actual Transaction Evidence in the Valuation of Non-market Amenities, *Economic Modelling* 29(1): 32-40.
- McWilliam, MK, GC van Kooten & C Crawford, 2012. A Method for Optimizing the Location of Wind Farms, *Renewable Energy* 48: 287-299.
- van Kooten, GC, P Withey & L Wong, 2011. Bioeconomic Modelling of Wetlands and Waterfowl in Western Canada: Accounting for Amenity Values, *Canadian J of Agric Economics* 59(2): 167-183.
- Withey, P & GC van Kooten, 2011. The Effect of Climate Change on Optimal Wetlands and Waterfowl Management in Western Canada, *Ecological Economics* 70(4): 798-805.
- Abbott, B & GC van Kooten, 2011. Can Domestication of Wildlife Lead to Conservation? The Economics of Tiger Farming in China, *Ecological Economics* 70(4): 721-728.
- Cotteleer, G, T Stobbe & GC van Kooten, 2011. Bayesian Model Averaging in the Context of Spatial Hedonic Pricing: An Application to Farmland Values, *J of Regional Science* 51(3): 540-557.
- Boronowski, S, A Rowe, P Wild & GC van Kooten, 2010. Integration of Wave Power in Haida Gwaii, *Renewable Energy* 35(11): 2415-2421.
- van Kooten, GC & L Wong, 2010. Economics of Wind Power when National Grids are Unreliable, *Energy Policy* 38(4): 1991-1998.
- Stennes, B, K Niquidet & GC van Kooten, 2010. Implications of Expanding Bioenergy Production from Wood in British Columbia: An Application of a Regional Wood Fibre Allocation Model, *Forest Science* 56(4): 366-378.
- van Kooten, GC, 2010. Wind Power: The Economic Impact of Intermittency, *Letters in Spatial & Resource Sciences* 3: 1-17.
- Sun, L, GC van Kooten & GM Voss, 2009. What Accounts for the Divergence between Ranchers' WTA and WTP for Public Forage? *Forest Policy & Economics* 11(4): 271-279.
- Abbott, B, B Stennes & GC van Kooten, 2009. Mountain Pine Beetle, Global Markets and the British Columbia Forest Economy, *Canadian J of Forest Research* 39(7): 1313-1321.
- van Kooten, GC, 2009. Biological Carbon Sequestration and Carbon Trading Re-visited, *Climatic Change* 95(3-4): 449-463.
- Eiswerth, ME & GC van Kooten, 2009. The Ghost of Extinction: Preservation Values and Minimum Viable Population in Wildlife Models, *Ecological Economics* 68: 2129-2136.
- Sun, L & GC van Kooten, 2009. Fuzzy Logic and Preference Uncertainty in Non-market Valuation, *Environmental & Resource Economics* 42(April): 471-489.
- van Kooten, GC, 2009. Biological Carbon Sinks: Transaction Costs and Governance, *The Forestry Chronicle* 85(3): 372-376.
- Prescott, R & GC van Kooten, 2009. Economic Costs of Managing of an Electricity Grid with Increasing Wind Power Penetration, *Climate Policy* 9(2): 155-168.
- Yamaguchi, J & GC van Kooten, 2008. Do Higher Financial Returns Lead to Better Environmental Performance in North America's Forest Products Sector? *Canadian J of Forest Research*, 38(9): 2515-2525.
- van Kooten, GC, 2008. Protecting the African Elephant: A Dynamic Bioeconomic Model of Ivory Trade, *Biological Conservation* 141(8): 2012-2022.
- Krcmar, E & GC van Kooten, 2008. Economic Development Prospects of Forest-Dependent Communities: Analyzing Tradeoffs using a Compromise-Fuzzy Programming Framework, *American J of Agricultural Economics* 90(4): 1103-1117.
- Maddaloni, JD, AM Rowe & GC van Kooten, 2008. Network Constrained Wind Integration on Vancouver Island, *Energy Policy* 36(2): 591-602.

Benitez, LE, PC Benitez & GC van Kooten, 2008. The Economics of Wind Power with Energy Storage, *Energy Economics* 30(4): 1973-1989.

- Prescott, R, GC van Kooten & H Zhu, 2007. The Potential for Wind Energy Meeting Electricity Needs on Vancouver Island, *Energy & Environment* 18(6): 723-746.
- Eiswerth, ME & GC van Kooten, 2007. Dynamic Programming and Learning Models for Management of a Nonnative Species, *Can J of Agric Econ* 55(December): 485-498.
- van Kooten, GC & B Sohngen, 2007. Economics of Forest Carbon Sinks: A Review, *International Review of Environmental & Resource Economics* 1(3): 237-269.
- Shaikh, S, L Sun & GC van Kooten, 2007. Are Agricultural Values a Reliable Guide in Determining Landowners' Decisions to Create Carbon Forest Sinks? *Canadian J of Agric Econ* 55(Feb): 97-114.
- Mogus, A, B Stennes & GC van Kooten, 2006. Canada-US Softwood Lumber Trade Revisited: Examining the Role of Substitution Bias in the Context of a Spatial Price Equilibrium Framework, *Forest Science* 52: 411-421.
- Benítez, PC, T Kuosmanen, R Olschewski & GC van Kooten, 2006. Conservation Payments under Risk: A Stochastic Dominance Approach, *American J of Agricultural Economics* 88(1): 1-15.
- Niquidet, K & GC van Kooten, 2006. Transaction Evidence Appraisal: Competition in British Columbia's Stumpage Markets, *Forest Science* 52(4): 451-459.

Chapters in Books & Other: Selected since 2006 (Total Chapters = 54)

- van Kooten, GC, D Orden & A Schmitz, 2018. Use of Subsidies and Taxes and the Reform of Agricultural Policy. In *Handbook of Agricultural Economics* edited by G Cramer, K Paudel & A Schmitz. Oxford, UK: Routledge.
- Kennedy, P.L., A. Schmitz and G.C. van Kooten, 2018. Food Security and Food Storage, *Reference Module in Food Science*, Elsevier. ISBN 9780081005965, https://doi.org/10.1016/B978-0-08-100596-5.22251-8. (https://www.sciencedirect.com/science/article/pii/B9780081005965222518)
- van Kooten, GC & R Wortzman, 2018. European Energy Policy. Chapter 11 in *European Union, Governance and Policy Making: A Canadian Perspective* edited by E Brunet-Jailly, A Hurrelmann & A Verdun. Toronto, ON: University of Toronto Press.
- FAO, 2016 (contributing author). Forestry for a Low-carbon Future: Integrating Forests and Wood Products in Climate Change Strategies. FAO Forestry Paper 177. 180pp. Rome: Forest and Agricultural Organisation of the United Nations.
- van Kooten, GC, CMT Johnston & Z Xu, 2014. Economics of Forest Carbon Sequestration. Chapter 11 in *Handbook of Forest Resource Economics* edited by S Kant & J Alavalapati. Cheltenham, UK: Edward Elgar.
- Wang, S, TN Bogle & GC van Kooten, 2014. Forestry and the New Institutional Economics. Chapter 30 in *Handbook of Forest Resource Economics* edited by S Kant & J Alavalapati. Cheltenham, UK: Edward Elgar.
- van Kooten, GC, 2013. Economic Analysis of Feed-in Tariffs for Generating Electricity from Renewable Energy Sources. Chapter 9 in *Handbook on Energy and Climate Change* (pp.224-253) edited by R Fouquet. Cheltenham, UK, & Northampton, MA: Edward Elgar.
- van Kooten, GC & FP de Vries, 2012. Carbon Offsets. Chapter 165 in *Encyclopedia of Energy, Natural Resource and Environmental Economics* edited by J Shogren. Amsterdam, NL: Elsevier.
- van Kooten, GC, 2012. Wind Energy Policy. Chapter 2.17 in *Comprehensive Renewable Energy, Vol 2* (pp.541-568) edited by A Sayigh. Oxford, GB: Elsevier.
- van Kooten, GC & GR Timilsina, 2009. Wind Power Development: Economics and Policies. Policy Research Working Paper 4868. Washington, DC: The World Bank, March. 32pp.
- Folmer, H & GC van Kooten, 2007. Deforestation. Chapter 7 in *Solutions for the World's Biggest Problems:* Costs and Benefits edited by B Lomborg. Cambridge University Press.
- van Kooten, GC, 2006. Economics of Forest and Agricultural Carbon Sinks. Chap 19 in *Climate Change and Managed* Ecosystems edited by JS Bhatti, R Lal, MJ Apps and MA Price. Baton Roca, FL: Taylor & Francis.