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Alan S. Miller



Alan Miller is a lawyer and an internationally recognized authority on climate finance and policy. His recent clients include the UNEP Finance Initiative (report on climate risks for the financial system); Sustainable Energy For All (report on access to cooling); a UN project to modernize weather systems in 11 African LDCs; and a US State Department project promoting private investment in climate adaptation. He is also an Associate with Climate Finance Advisors and an Adjunct Professor at the Kogod School of Business at American University and the School of Public Policy at the University of Maryland.

In January 2014 he retired from the International Finance Corporation (IFC) after 16 years in the World Bank Group (WBG) working on climate change issues including 6 years in the Global Environment Facility (GEF) Secretariat. His responsibilities included representing the IFC/WBG at meetings of the UN Framework Convention on Climate Change, G8, and the G20 as well as other international forums.

Prior to joining the IFC in 2003 Alan was for six years Climate Change Team Leader at the GEF Secretariat managing policies and approval of over \$1 billion in donor funding for clean energy projects in more than 70 developing countries. He previously created and directed the Center for Global Change at the University of Maryland (1989-96) and served on the staffs of the World Resources Institute, Natural Resources Defense Council, and Environmental Law Institute. He has taught at 9 universities in four disciplines and has degrees from Cornell University (A.B., Government 1971) and University of Michigan (J.D. and M.P.P. 1974). He was a Fulbright Scholar in Australia (Macquarie University, 1977) and Japan (Tokyo University, 1987).

Education

A.B., Government, 1971, Cornell University

J.D., U. Michigan Law School, 1974

Masters in Public Policy (MPP), U. Michigan, 1974

Recent Work History

January 2014 (retirement from the World Bank) to the present: Independent consultant on climate finance and policy; clients and activities include

- Review and assessment of World Bank use of off-balance sheet climate finance (internal and external impact over time)
- Climate issues for the financial sector, background paper for the Global Commission on Adaptation prepared with support from the UNEP Finance Initiative (2019)
- Consultant/writer, SEForAll Access to Cooling Project (2018- present)
- Linking financing for refrigerant replacement and energy efficiency, two papers and presentations prepared for the Natural Resources Defense Council with support from the Kigali Cooling Efficiency Program (2018-19)
- Rockefeller Foundation Bellagio Residency, February 2018 (book project, ongoing)
- Private sector advisor, UNDP GEF project to modernize weather and climate observation in 11 African Least Developed Countries (2014-18)
- Private Finance Advisor, US AID CEADIR project on climate change economics
- Co-author of paper on climate risk for Maryland Pension Fund that became basis for state law passed in 2018 to require analysis and disclosure of climate risks
- Adjunct professor, U. Michigan Law School (2015-2016); Kogod School of Business, American University (2017-2020); U. Maryland School of Public Policy (2019, 2021)
- Board Member, Good Earth Minerals (2015 to present)

Selected Recent publications

With Stacy Swann, Laurence Blandford, Sheldon Cheng, Jonathan Cook, and Rhona Barr, *Public International Funding of Nature-Based Solutions for Adaptation: A Landscape Assessment*, ” (World Resources Institute Working Paper, March 2021)

With Durwood Zaelke and Stephen O. Andersen, *Cut Super Climate Pollutants Now!* Changemakers Books, Hunt Publishing (April 2021)

Business and Financial Implications of Climate Change – A Growing Reality, chapter in Sustainability: Business and Investment Implications, forthcoming from World Scientific (2021)

Contributing author, “Accelerating and Innovating Climate Action: A Retrospective of the World Bank’s Experience with Select Climate and Carbon Trust Funds”, July 2020, <https://openknowledge.worldbank.org/handle/10986/34328>

With Stacy Swann, “Integrity at Risk,” *Environmental Forum*, January/February 2020 (copy available on request)

Co-lead author with Stacy Swann, also with A. Eil and S. Cheng, “*Driving Finance Today for the Climate Resilient Society of Tomorrow*”, report prepared with support from and released by UNEP Finance Initiative (UNEP FI), a background paper for the Global Commission on

Adaptation, July 2019, https://climatefinanceadvisors.com/wp-content/uploads/2019/07/GCA-Adaptation-Finance-background-paper_FINAL-7-17-19.pdf

With Anderson, Glen; Eric Hyman; Charlotte Mack-Heller; Marcia Trump; and Jonathan Cook. 2019. *Climate Finance Assessment: Opportunities for Scaling Up Financing for Clean Energy, Adaptation, and Sustainable Landscapes*. Washington, DC: Crown Agents USA and Abt Associates, Prepared for the U.S. Agency for International Development.

With Andrew Eil, Alexander Hillbrand, and Sheldon Cheng, “*Discussion Paper: Architecture and Financing Models for Efficient Cooling Alongside the Montreal Protocol*,” July 2019, <https://www.nrdc.org/resources/discussion-paper-architecture-financing-models-efficient-cooling-alongside-montreal>

Lead author, “*Financing Access to Cooling Solutions: Knowledge Brief*,” April 2020, <https://www.seforall.org/system/files/2020-03/FinancingCooling-SEforALL.pdf>; and “*Chilling Prospects: Providing Sustainable Cooling for All*”, report released by Sustainable Energy For All (SEForAll), July 2018, <https://www.seforall.org/coolingforall/report>

“*An Essential Strategy*”, The Environmental Forum, March/April 2018, pp. 27-33 (a review of the current status and need for additional efforts to promote carbon sequestration from power plants)

With Johannes Hoedjes and Jeremy Usher, “Climate Information for Climate Change Adaptation,” in *Private-Sector Action in Adaptation: Perspectives on the Role of Micro, Small, and Medium Enterprises* (published by UNEP DTU, April 2018); <http://www.unepdtu.org/newsbase/Nyhed?id=%7b5E9AA687-49E6-48A0-9FCA-2CEE44938241%7d>

With R. Percival, C. Schroeder, and J. Leape, *Environmental Regulation: Law Science and Policy*, 8th edition (2018, Aspen Publishers)

With Matthew Binsted, Nathan Hultman, Wes L. Hanson, and Travis St. Clair, “Climate Change Risk and the Maryland State Retirement and Pension System” (October 2017), published by The Center for Global Sustainability, University of Maryland School of Public Policy, <http://www.cgs.umd.edu/publication/> (basis for Maryland Pension Risk Mitigation Act of 2018)

Alan Miller & Stacy Swann, “Financing Innovation: Opportunities for the GEF,” paper prepared for the GEF Scientific and Technical Advisory Panel (STAP), posted July 2017 <http://www.stagef.org/financing-innovation-opportunities-gef>

World Bank, “State of Electricity Access Report 2017” (contributing author), <http://www.worldbank.org/en/topic/energy/publication/sear>

Alan Miller & Stacy Swann, *Climate Change and the Financial Sector: A Time of Risk and*

Opportunity, (published April 2017). Georgetown Environmental Law Review, Vol 29, pp. 69-112 (online: <https://gielr.files.wordpress.com/2017/04/zsk00117000069.pdf>)

Alan Miller & Stacy Swann, *EMCompass Note 13: Insurance Options for Addressing Climate Change*, INT'L FIN. CORP. (Sept. 2016), <http://www.ifc.org/wps/wcm/connect/739a5af0-d26c-4ce5-a9ff-d6f49f801bf9/Note-13-EMCompass-Insurance-Options-for-Addressing-Climate-Change.pdf?MOD=AJPERES>. (One of a series of 6 short papers available online.)

UNDP, (2016). *A New Vision for Weather and Climate Services in Africa* (co-lead author of publication with multiple contributors), <http://www.undp.org/content/undp/en/home/librarypage/climate-and-disaster-resilience-/weather-and-climate-systems---africa.html>

With Ilmi Granoff and J.Ryan Hogarth, *Nested barriers to low-carbon infrastructure investment*, Nature Climate Change, 6, 1065-71, (2016)(doi: 10.1038/nclimate3142)

IFC (co-lead author with S. Patel and A. Maheshwari), 2013. Mobilizing Public and Private Funds for Inclusive Green Growth Investment in Developing Countries, a Stocktaking Report Prepared for the G20 Development Working Group; <http://web.worldbank.org/archive/website01585/WEB/IMAGES/MOBILIZI.PDF?MOD=AJPERES>

Pre-2014 Work History

October 2003 – December 2013: International Finance Corporation, climate policy specialist, initially in the Environment Department Environment Finance Unit, from September 2010 in a new Climate Business Department (www.ifc.org/climatebusiness). Represented IFC in internal World Bank and external UN and other matters related to climate policy; initiated and managed program on climate risk management and adaptation; led two year project for G20 Development Working Group on financing green growth; organized external courses on climate change for IFC staff; authored background paper for World Bank Energy Strategy

April 1997 – September 2003: Global Environment Facility (www.thegef.org) Secretariat, Team Leader for Climate Change managing policies and projects using donor funding for climate change projects under guidance of the UN Framework Convention on Climate Change

1990 – 1997: Founder and Executive Director, Center for Global Change, University of Maryland, College Park, MD; created, raised funds (more than \$4 million), and managed interdisciplinary, social science research program on global environmental problems

1988 -- 1990: Assistant Professor (tenure track), Widener College of Law, Wilmington, Delaware teaching courses on property and environmental law

1987: Fulbright Scholar, Tokyo University, Tokyo, Japan, global environmental policy research

Summer-Fall 1986: Visiting Professor, Washington College of Law, American University, Washington, D.C.

1984 – 1986: Staff Associate, World Resources Institute, Washington, D.C. (climate and energy program)

1979 – 1984: Staff Attorney, Natural Resources Defense Council, Washington, D.C. (clean energy, stratospheric ozone protection, water pollution litigation)

1977: Fulbright Scholar, Macquarie University, Sydney, Australia, research on clean energy policy and environmental advocacy

1974 – 1977: Staff Attorney, Environmental Law Institute, Washington, D.C.

Teaching and Academic Experience

- More than 25-year law and graduate school teaching experience at multiple universities including environmental, law, public policy, and business courses at Iowa, Duke, Michigan, Maryland, Widener, George Washington, and American; 22 years on summer faculty at Vermont Law School (climate change and development course); visiting professor at Michigan School of Natural Resources and Environment
- Organized series of 17 webinars on private sector engagement in climate change for US AID program, Climate Economic Analysis for Development, Investment and Resilience (archived at <https://www.climatelinks.org/projects/ceadir>)
- Adviser to US-Japan Foundation, Center for Global Partnership 1990-2007; member, selection panel for Abe Fellows program, participant/speaker CGP sponsored programs
- Co-author of a leading environmental law textbook (now in 8th edition)
- Organized four climate change courses at leading academic and research institutions for World Bank staff
- Advisor and faculty for three World Bank climate change MOOCs and Legal Department Law, Justice and Development Week (December 2016)

Professional and Community Service

- Resident Fellow, Rockefeller Foundation Bellagio Center, February 2018
- Board member, Institute for Market Transformation (20 years)
- Board member, Good Earth Minerals (joined 2017)
- Member organizing committee for Montgomery County Green Bank (2016-17)
- Program Committee, American Society for International Law Annual Meetings 2015
- Walton Sustainability Fellow, Arizona State University 2014
- Advisory Board, International Development Law Organization, Sustainable Energy Committee and Advisory Board, Institute for Industrial Productivity
- Past Chair (1992-95) and Newsletter Editor (2008-14), Committee on Climate Change and Sustainable Development, American Bar Association;
- Headed President Clinton's Transition Team for EPA (1992)

- Montgomery County Energy and Air Quality Advisory Committee (4 years)
- Founding Director and Board member, Renewable Energy Policy Project (1999-2013)

Additional Publications

- (2017) “Synthesis of CEADIR Series Events: February 2015 – December 2016,” report summarizing 17 webinars organized for the US AID activity, Climate Economic Analysis for Development, Investment, and Resilience (CEADIR), <https://www.climatelinks.org/resources/synthesis-ceadir-series-events-february-2015-december-2016>
- (Aug 2014) The International Implications of EPA’s Proposed Regulations to Reduce CO2 Emissions from Existing Power Plants, ABA Climate Change, Sustainable Development, and Ecosystems Committee Newsletter Vol. 17, No. 2, pp. 3-5
- (Sept 2013): Engaging the Private Sector in Adaptation to Climate Change in Developing Countries: Importance, Status, and Challenges, Climate and Development, vol 5, pp. 242-252
- (Sep-2013): Environmental Regulation: Law, Science and Policy, with R. Percival, C. Schroeder, and J. Leape (7th ed, international chapter)(Aspen Publishers)
- (May-2014): American Bar Association, The Year in Review 2013, (contributing author), also 2012 (May 2013), 2010 (01-Apr-2011) and 2009 (01-April-2010)
- (April 2011): Resolving Conflicts Between Green Technology Transfer and Intellectual Property Law, ABA Newsletter on Climate Change and Sustainable Development (with R. Percival)
- (Jan-2011): Promotion of New Clean Energy Technologies and the World Bank Group: Background Paper for the World Bank Group Energy Sector Strategy (with Andrew Eil)
- (Sep-2010): Opinion: an Energy Policy Approach to Climate Change, in Energy for Sustainable Development, with Morgan Bazilian, Hugh Outhred, and Melinda Kimble
- (Jan-2009): Evaluating the Private Sector Perspective on the Financial Risks of Climate Change, West Northwest J of Env’tal Law & Policy, Vol 15, n. 1, with Richenda Connell and Vladimir Stenek
- (June-2008): Financing the Integration of Climate Change Mitigation into Development, Climate Policy, Vol 8, n.2
- (July 2007): Selling Solar: Lessons from More Than a Decade of IFC’s Experience (International Finance Corporation)(with N. Magradze and H. Simpson)
- (Apr-2007): International Trade and Development, ch. 8 in Global Climate Change and U.S. Law, M. Gerrard, ed. (1st edition, a publication of the American Bar Association)
- (Mar-2007): The Global Environment Facility Program to Commercialize New Energy Technologies, in Energy for Sustainable Development, Vol XI, No. 1
- (Dec-2006): Bad Fiction, Worse Science, a Review of *State of Fear* by Michael Crichton, Issues in Science and Technology, Vol. XXII, No. 2
- (Feb-2005): Financing Clean Energy for Development, chapter in The Law of Energy for Sustainable Development, R. Ottinger, ed. (Cambridge U. Press)
- (Jun-2002): "Energy, Climate Change, and Sustainable Development," chapter in Energy Market Restructuring and the Environment, M. Harriss, ed. (University Press)
- (June-2000): "The GEF and the Search for Financial Strategies to Foster Sustainable

Development," Vermont Law Review, Vol 24, pp. 1224-44

- **(June-1998)**: "Global Aspects of Environmental Health," in International Occupational and Environmental Medicine, Hertzstein, W. Bunn, and L. Fleming, eds. (with J. Patz and P. Epstein)

- **(June-1998)**: "Externalities, Technology, and Sustainable Development," in Widener Law Symposium Journal, Vol 3

- **(Sep-1997)**: "The Promise and Peril in a Restructured Electric System," Natural Resources & Environment (with A. Serchuk)

- **(June-1996)**: "The World Responds to Climate Change and Ozone Loss," Forum for Applied Research and Public Policy (with M. McFarland)

- **(June-1996)**: "Legal, Environmental, and Labor Issues Arising from the Use of Solar Heating Technologies," in Implementation of Solar Thermal Technology, edited by Ronal Larson and Ronald West, MIT Press

- **(Sep-1995)**: "Energy Policy from Nixon to Clinton: From Provider to Market Facilitator," in Environmental Law (Northwestern School of Law, Lewis & Clark College), Vol. 25, n. 3, pp. 715-31

- **(June-1994)**: "Product Liability and Associated Perceptions of Risk: Implications for Technological Innovation Related to Energy Efficiency and Environmental Quality," in Annual Review of Energy and Environment, Vol. 19 (with L. Holzman)

- **(May-1994)**: Global Environment Facility: Independent Evaluation of the Pilot Phase (contributing author as climate change expert and member World Bank evaluation team)

- **(Jan-1994)**: Green Gold: Japan, Germany, the United States, and the Race for Environmental Technology (with C. Moore, co-author, Beacon Press)

- **(Jan-1994)**: "The Military's Role in Protection of the Ozone Layer," in Environmental Science & Technology (with S. Andersen and T. Morehouse)

- **(Jan-1993)**: "Book Review: Buying Greenhouse Gas Insurance, The Economic Costs of CO2 Emission Limits," in Technology Review

- **(June-1992)**: Shaping Institutions to Build New Partnerships: Lessons from the Past and a Vision for the Future (book chapter with William Nitze and Peter Sand)

-- **(1992)**: A Symposium on the Role of International Law in Global Environmental Protection, J. Urban & Contemporary Law, Vol. 42, pp. 29-33

- **(Jan-1991)**: "Japan and the Global Environment," Duke Environmental Law & Policy Forum (with C. Moore)

- - **(Nov-1986)**: The Sky IS the Limit: Strategies for Protecting the Ozone Layer, WRI Research Report (with I Mintzer)

- **(Apr-1986)**: Growing Power: Bioenergy for Development and Industry, WRI Study No.5, with I.Mintzer and S. Hoagland

- **(Jan-1980)**: Fluorocarbon Regulation: An International Comparison (with T. Stoel and B. Milroy, Lexington Books)