

Curriculum Vitae for Dr. Robert W. Corell

2019

Summary: Dr. Robert W. Corell is a Member of the Board of Directors and a Principal at the Global Environment Technology Foundation and Leads its Center for Energy and Climate Solutions. He has several academic appointments: Adjunct Professor, Department of Ocean Science, University of Miami. Professor at the University of the Arctic and Professor II at Sámi University of Applied Sciences, Norway. He was appointed Vice Chancellor of the Academy of Science and Art in 2012. Council Member of the Global Energy Assessment (GEA) and Lead Author of GEA's Chapter 3 on Environment and Energy and Co-Chair of Phase II of the GEA (2009 – 2015). Dr. Corell founded the non-profit Global Science Associates, an interdisciplinary nucleus of science experts. He led the Arctic Climate Impact Assessment (2000-2005) and most recently lead a comprehensive study of governance issues in the circumpolar Arctic. In 2013, chaired and was the lead author of the 2013 UNEP Year Book on "*The View from the Top Searching for Responses to a Rapidly Changing Arctic*". He was recognized with the other scientists for the 2007 Nobel Peace Prize for his work with the International Panel on Climate Change (IPCC) assessments. He was awarded an Honorary Doctor of Veterinarian Medicine by the Norges Veterinærhøgskole (Norwegian School of Veterinarian Science) in 2010. He is the Chief Scientist and Member of the Board of the Rising Seas Institute (formally, called the International Sea Level Institute) In 2008 he was awarded an Honorary Doctor of Science, University of Alaska, Anchorage and in 2010, he was awarded an Honorary Doctor of Veterinarian Medicine by the Norges Veterinærhøgskole (Norwegian School of Veterinarian Science). In 2017, Case Western Reserve University Alumni Association awarded him the Gold Medal Award for Lifetime Achievements (USA). In 2019, he was elected a member by the Norwegian Scientific Academy for Polar Research. In 2003, he was named in a circular mountain region forming the head of a glacier in Antarctica as the "Corell Cirque" by the Board on Geographical Names (79°54'00"S, 155°57'00"E). In 2019, he was awarded the High North Hero Award 2019 by High North Center for Business and Governance of Norway.

Dr. Corell is actively engaged in research concerned with the sciences of global change and the interface between science and public policy, particularly research activities that are focused on global and regional climate change, related environmental issues and science to facilitate understanding of vulnerability and sustainable development, for example, he is a lead Editor of "The Arctic in the World Affairs: books 2011-2016, 2017, 2018 and 2019. Dr. Corell was Assistant Director for Geosciences at the National Science Foundation where he had oversight for the Atmospheric, Earth, Ocean Sciences, Polar Programs and was Chair for over a decade of the United States Global Change Research Program reporting to the White House's Office of Science and Technology Policy. He was also a professor and academic administrator at the University of New Hampshire. Dr. Corell is an oceanographer and engineer by background and training, having received Ph.D., M.S., and B.S. degrees at Case Western Reserve University and MIT with PhD graduate studies in oceanography at the Scripps Institution of Oceanography. He has also held appointments at the Woods Hole Institution of Oceanography, the Scripps Institution of Oceanography, the University of Washington, and Case Western Reserve University.

I. Professional Preparation:

Case Institute of Technology	B.S. 1956
Massachusetts Institute of Technology	M.S. 1959
Case Institute of Technology	Ph.D. 1964
Scripps Institution of Oceanography (PhD Graduate Studies, Ocean Science)	1970 -1971

II. Appointments:

Board of Directors, Global Environment & Technology Foundation	2019-Present
Board of Trustees, Bermuda Institute of Ocean Sciences (BIOS)	2018-Present
Adjunct Professor, Department of Ocean Sciences, University of Miami (US)	2016-Present
Senior Investigator, Mistra Arctic Sustainable Development: New governance for sustainable development in the European Arctic	2014-2019
Senior Investigator, Adaptation Action for a Changing Arctic (AACAA)	2013-2016

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Science Advisors, YEARS of Living Dangerously, TV Series NGS	2013-Present
Vice Chancellor of the Academy of Science and Arts	2012-Present
Senior Fellow, School of Environment, Arts and Society, College of Arts and Sciences at Florida International University	2010-2016
Professor, University of the Arctic	2009-Present
Professor II, UArctic's Institute of Circumpolar Reindeer Husbandry, Norway	2009-Present
Founder and Chair, Global Science Associates	2009-Present
Sustainability Institute/Climate Interactive Science and Modeling Team	2008-2017
Principal, Global Environment & Technology Foundation	2006-Present
International Advisory Board, Encyclopedia of Earth	2007-Present
Member, Distinguished Editorial Board, The Solutions Journal	2007-Present
Science Advisory Board, Climate Communications.	2001-Present
Member, National Academy of USNMO/IIASA Committee,	20172009-2015
Senior Science Advisor, ManyOne.Net	2004-Present
Chair of the Board, Autonomous Undersea System Institute	1986-Present
Convening Lead Author, US National Climate Assessment	2010-2014
Co-Chair: "Delivering the Next Generation of Ocean Sciences"	2011-2014
Arctic Chair and Professor II, University of Tromsø, Norway	2009-2013
Member, Governing Board, Global Energy Assessment and Lead Author	2007-2013
Lead Author, GEA Chapter 3 – Environment and Energy	2008-2013
Chair, Global Energy Assessment – U.S. Support Office	2007-2013
Senior Policy Fellow, American Meteorological Society's Policy Program	2000-2011
America's Climate Choices, Panel on Science, Nat'l Acad. Of Science	2008-2011
Human Dimensions of Global Environmental Change, Nat'l Acad. of Science	2006-2011
Chair: Nat'l Academy of Sciences Panel on Strategies and Methods of Climate-related Decision Support	2007-2010
Chair, Governance in a Rapidly Changing Arctic Project	2007-2010
Vice President, Programs and Policy, H. John Heinz III Center	2006-2010
Scientific Adviser, SeaKeepers Society	2008-2009
Affiliate, Washington Advisory Group, LLC	2005 2009
Open Geospatial Consortium II, Chair of the Board of Directors	2005-2009
Digital Universe Foundation, Chair of the Board of Directors	2005-2009
Chair, International Arctic Research Planning Committee - ICARP II	2003-2007
Chancellor's Distinguished Fellow, University of Calif. Irvine	2004-2005
Chair: The Arctic Climate Impact Assessment (IASC and Arctic Council)	2000-2005
Board of Trustees, Climate Institute	2000-Present
NATO Environmental and Earth Science & Technology Panel	1998-2004
Member of the Climate Research Committee, National Academy of Sciences	2000-2004
Climate Research Committee, BASC of the Nat'l Acad. Of Science	2001-2004
Senior Research Fellow, Kennedy School of Government, Harvard Univ.	2000-2004
Assistant Director, Geosciences Directorate, National Science Foundation	1987-2000
Founding Director, Inter-American Institute for Global Change Research	1992-1995
Professor, University of New Hampshire	1964-1991
Research Professor, Complex Systems Research Center (UNH)	1979-1991
Director, Marine & Sea Grant Programs, U. New Hampshire (UNH)	1975-1987
Director, Marine Systems Engineering Laboratory (UNH)	1973-1987
Visiting Professor, Applied Physics Laboratory, U. of Washington	1985
Visiting Professor & Research Associate, Scripps Inst. of Ocean	1971-1972
Visiting Professor & Investigator, Woods Hole Ocean. Institute	1965

I. Several Recent Publications:

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- 2019 Reiersen L. O. & Corell, R. W., *Monitoring and Assessing Arctic Climate Change* Oxford Research Encyclopedia of Climate Science. (In Press, Late 2019 or early 2020 release)
- 2019 Corell, R. W., *Global-Arctic Interactions: The Arctic Moves from Periphery to Center*. Co-Lead Editor of the 2019 Book, East-West Center Book (In Press, January 2020 release).
- 2019 Corell, R.W., Overland, J, et al, *The Urgency of Arctic Change*. Polar Science. ISAR5 Special Collection, doi: <https://doi.org/10.1016/j.polar.2018.11.008>.
- 2019 Corell, R.W., *Arctic 2030 and Beyond – Pathways to the Future*, Co-Lead Editor of the 2018 Book. East-West Center Book (In Press, January 2019 release)
- 2019 Corell, R.W., Jason E. Box, Colgan, W.T., et al., *Indicators of Arctic Climate Change: 1971-2017*, Environmental Research Letters, ERL-106063, submitted 12 Oct, 2018. Accepted for 2019
- 2018 Corell, R.W., *Indigenous Knowledge and Climate Change: Foundations for Assessment and Adaptation*, Chapter Author, UNESCO Book.
- 2018 Corell, R.W., *North Pacific Arctic Conference Arctic 2030 and Beyond – Pathways to the Future*. Co-Lead Editor of the Book, East-West Center Book
- 2017 Corell, R.W., *Water, Water Everywhere*, the *Economist*. May 13, 2017
- 2017 Corell, R.W., *A North Pacific Dialogue on Building Capacity for a Sustainable Arctic in a Changing Global Order*, Co-Lead Editor of the Book, East-West Center Book
- 2017 Corell, R.W., et al, *Adaptation Actions for a Changing Arctic: Chapter 8, Perspectives from the Barents Area*. Publisher: Arctic Monitoring and Assessment Programme (AMAP)
- 2017 Corell, R.W., et al *Chapter 6 Impact analysis and consequences of change. Adaptation Actions for Changing Arctic (ACA)*, Arctic Council and AMAP.
- 2016 Corell, R.W. *The Arctic in World Affairs: Emerging Issues, Policy Responses*. Co-Lead Editor of the Book. East-West Center Book
- 2016 Corell, R.W., et al, *GEO-6 Global Environment Outlook: Regional Assessment for North America*, UN Environment Programme
- 2015 Corell, R.W., et al, *The Economics of Ecosystems and Biodiversity (TEEB) for the Arctic: A Scoping Study*, the Arctic Council.
- 2014 Corell, R.W. Lead Editor, *The Arctic in World Affairs: A North Pacific Dialogue on Arctic Transformation*, KOTI and the East-West Center, Hawaii. East-West Center Book
- 2014 Corell, R.W. Convening Lead Author, US National Climate Assessment, *A Research Agenda to Support U.S. Climate and Global Assessments*,
- 2013, Corell, R.W., *Arctic Impact Assessment: Setting the Stage*, In book: Environmental Security in the Arctic Ocean, pp.59-72.
- 2013 Corell, R.W. *The Climate Energy Conundrum: A Solutions Perspective*, May 2013
- 2013 Corell, R.W., Lead Author, UNEP Year Book, *View from the Top: Searching for responses to a rapidly changing Arctic*
- 2012 Corell, R.W., *Climate Prospects for 2052*, Book Chapter in Our global future to 2052.
- 2012 Corell, R.W., *Implication of Arctic Transformation for the North Pacific*, Book Chapter in Opening Northern Sea Route and Dynamic Changes in North Pacific Logistics and Resource Security.
- 2011 Corell, R.W. *The Arctic in World Affairs: A North Pacific Dialogue on Arctic Transformation*, Lead Editor of the Book
- 2011 Corell, R.W., *Arctic Change Impact Assessment: Setting the Stage*, Book Chapter NATO Advanced Research on Environmental Security in the Arctic Ocean
- 2011 Corell, R.W., *The Scientific and Historical Foundations of Earth System Science*, in NASA's Earth System Science at 20: Views of the Past, Present, and Future, BAMS
- 2011 Corell, R.W., *Arctic Native Peoples on the Edge*, Solutions Journal, Volume 2, Issue 1, 2011
- 2010 Matson, P., Corell, R.W. et. al., *Advancing Science, America's Climate Choices*, National Academy of Sciences, National Academies Press.
- 2009 Corell, R.W., et al, *Melting Snow and Ice: A Call of Action*, A Report commissioned by Nobel

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- Peace Prize Laureate Al Gore and Norway's Minister of Foreign Affairs, Jonas Gahr Store
- 2009 Corell, R.W. et al, *Informing Decisions in a Changing Climate*, National Academy of Sciences PNAS.
- 2009 Corell, R.W., et al *Planetary Boundaries: Exploring the safe operating space for humanity*, Ecology and Society, 14th September 2009
- 2009 Corell, R.W., et al, *A Safe Operating Space for Humanity*. Nature. 2009 Sep 24;461(7263):472-5
- 2009 Corell, R.W., et al, *Climate Change Science Compendium*, Scientific Committee on Problems of the Environment, the World Climate Research Programme, and the World Meteorological Organization
- 2008 Corell, R.W., et al, *An Overview of Our Changing Environment*, UNEP Year Book
- 2008 Corell, R.W., et al, *Methane from the Arctic: Global Warming Wildcard*, UNEP Year Book
- 2008 Corell, R.W. "Challenges of Climate Change: *The Arctic as a Bellwether for Action*", Foreign Service Journal
- 2008 Corell, R.W. Chapter 4; *The Potential for Rapid Melting of Ice and Amplification of Sea Level Rise*, including a second part on *Changes in Polar Sea Ice Coverage* by Claire L. Parkinson. In Published by the Climate Institute. Washington, D.C.
- 2008 Corell, R.W., Preface Chapter for a book, *Arctic-Subarctic Ocean Fluxes: Defining the Role of the Northern Seas in Climate*. Springer Press.
- 2007 Corell, R.W. Challenges of Climate Change: "*An Arctic Perspective and its Implications*", Chapter in a book in French and English, Cambridge University Press.
- 2007 Tyler, N.J.C., Corell, R.W. et al, *Saami reindeer pastoralism under climate change: Applying a generalized framework for vulnerability studies to a sub-arctic social-ecological system*, Global Environmental Change Volume 17, Issue 2, May 2007, Pages 191-206
- 2006 Corell, R.W., *Challenges of Climate Change: An Arctic perspective*. Ambio. 2006 Jun;35(4):148-52.
- 2006 Book: Corell and Hassol, Chapter 21 in "*Avoiding Dangerous Climate Change*", Editor, Hans Joachim Schellnhuber, Cambridge University Press
- 2006 *Hurricanes and Global Warming: An Alternative Point of View*, R. A. Anthes, R. W. Corell, et al. Bulletin of the American Meteorological Society (BAMS),
- 2005 *The Scientific Document from the Arctic Climate Impact Assessment*, Chair of the overall Assessment Steering Committee. Cambridge University Press
- 2005 "*Harnessing Science, Technology and Innovation for Sustainable Development*" Corell, R.W., Vessuri, H, et al. citation: International Council for Science, A report from the ICSU-ISTS-TWAS Consortium ad hoc Advisory Group.
- 2005 "*Climate Change in the Context of Multiple Stressors and Resilience*", McCarthy, J.J., Martello, M.L., Corell, R.W. et al, Chapter 17 of the Arctic Climate Impact Assessment, Accepted and to be published by Cambridge University Press, February 2005.
- 2003 "*Illustrating the coupled human-environment system for vulnerability analysis: three case studies*". Kates, R., Corell, R.W., et al Proc. Nat'l Acad. Sci. U S A. 2003 Jul 8;100(14):8080-5. pub 2003 Jun 18
- 2003 "*A framework for vulnerability analysis in sustainability science*". Kates, R., Corell, R.W., et al Proc Natl Acad Sci U S A. 2003 Jul 8;100(14):8074-9. pub 2003 Jun 5
- 2002 "*Environment and development. Sustainability science*", Science. 2002 Sep 20;297(5589):1994
- 2001 "*Environment and development. Sustainability science*" Kates, R., Corell, R.W., et al Science. 2001 Apr 27;292(5517):641-2.
- 2000 Corell, R.W., *A Perspective on Planning and Implementing for the Science of Global Environmental Change*, EOS, Transactions, American Geophysical Union 81, no. 48, Suppl. (28 November, 2000): 4.

Publications prior to 2000 have not been excluded.

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II. Collaborators and Other Affiliations:

A listing of collaborators or research colleagues with whom he was worked closely during recent years on research related to climate and global environmental change, include, for example: Partha Dasgupta (Univ. of Cambridge), Brian Walker (Commonwealth Scientific and Industrial Research Organization), Hebe Vassuri (Venezuela Inst. for Scientific Research), Calestous Juma (Harvard Kennedy School), Gilberto Gallopin (United Nations Economic Commission), Louis Lebel (Chiang Mai Univ.), Akin Mabogunje (Development Policy Centre), Mohammed Hassan (Third World Academy of Sciences), Jill Jaeger (Sustainable Europe Research Inst.), Jose Sarukhan (National Univ. of Mexico), Vitali Churkin (United Nations Ambassador), Lars-Otto Reiersen (Arctic Monitoring and Assessment Program), Pal Prestrud (Centre for International Climate and Environmental Research), Grete Hovelsrud ((Centre for International Climate and Environmental Research), Nicholas Tyler (Saami Univ.), Svein Matheisen (Saami Univ.), Johan Mathis Turi (Saami Univ.), Rajendra K. Pachauri (Energy and Resources Inst.), Sheila Watt-Cloutier (Inuit Circumpolar Council), and Michael MacCracken (Climate Inst.), Sandra Cavalieri (Ecologic), Paul Stern (National Academy of Sciences), Andrew Jones (Sustainability Inst.), Nebojsa Nakicenovic (Inst. of the International Inst. for Applied Systems Analysis) and others concerned with the global-scale to local changes in the Earth's environment, from climate change to energy.

III. Honors and Awards (Recent)

1993 *Special Award for outstanding Scientific leadership*, American Meteorological Society
1996 *Brazilian Order of Scientific Merit*, Awarded by the President of Brazil
1998 *Compass Distinguished Achievement*, Marine Technology Society
1998 *Edward A. Flinn III Award*, American Geophysical Union
2000 *AMS Fellow*, American Meteorological Society
2003 A circular mountain region forming the head of a glacier in Antarctica was named the “*Corell Cirque*” by the Board on Geographical Names (79°54'00”S, 155°57'00”E)
2005 *Conservation Achievement Award*, Science. National Wildlife Federation
2007 *Recognized and Honored in the 2007 IPCC Nobel Peace Prize*
2006 *Roger Revelle Memorial Award for Scientific Achievement*, The Climate Institute
2008 *Honorary Doctor of Science*, University of Alaska, Anchorage
2008 *Lifetime Achievement Award*, National Council for Science and the Environment
2008 *Thor Heyerdahl Award*, The Heyerdahl Foundation
2010 *Honorary Doctor of Veterinarian Medicine* by the Norges veterinærhøgskole (Norwegian School of Veterinarian Science)
2014 *Lifetime Achievement Award*, National Council for Science and the Environment.
2016 *Fellow*, American Association for the Advancement of Science
2017 *Gold Award for Life Time Achievement*, Case Western Reserve University, CAA.