

## **James L. Buizer**

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### **Employment**

#### **University of Arizona (2011-Present)**

- *Founding Director, Arizona Institutes for Resilience*
- *Professor, School of Natural Resources and the Environment*
- *Professor, Arid Lands Resources Sciences*
- *Professor, Graduate Interdisciplinary Program in Global Change*
- *Research Scientist, Arid Lands Resource Sciences Program*
- *Associate Director, Collaborative for Global Adaptive Pandemic Solutions*

#### **Current External Appointments:**

- Board of Directors, Second Nature, Inc.
- Board of Directors, National Council for Science and the Environment
- Board of Directors, Higher Education Growth Foundation
- Advisory Council for Planet Forward, George Washington University
- Senior Advisory Board, Regional Integrated Multi-Hazard Early Warning System for Africa and Asia, Bangkok, Thailand
- Senior Sustainability Scientist, Arizona State University
- Affiliate Scholar, Consortium for Science, Policy & Outcomes, ASU
- Senior Advisor, Venue Strategies, LLC

#### **Recent Past Service Appointments:**

Chairman, Board of Directors, Second Nature, Inc.; Chairman, Board of Directors, National Council for Science and the Environment; UA President's Council on Environmental Sustainability; Faculty Affiliate, Institute for Energy Solutions; Co-Director, Integrating Climate Information and Decision Processes for Regional Climate Resilience; Board on Global Strategies, American Meteorological Society; Chairman, Development Committee, UA School of Natural Resources and the Environment; Lead Author, Fourth National Climate Assessment; UA Diversity and Inclusive Excellence Committee; Task Force on Operational and Resource Planning, Global Framework for Climate Services, World Meteorological Organization; Treasurer, Board of Directors, Foundation for Earth Science; Interim Executive Director, National Council for Science and the Environment; Executive Council, Development & Advisory Committee, 3<sup>rd</sup> U.S. National Climate Assessment; U.S. National Academies of Sciences Study: America's Climate Choices; Strategic Advisor, Pegasus Capital Advisors, LP; Advisory Committee, U.S. Council on Competitiveness; Chairman, Climate Adaptation Working Group, American College and University Presidents' Climate Commitment; National Council of Environmental Deans and Directors; Vice Chairman, Board of Directors, Association for the Advancement of Sustainability in Higher Education

**Arizona State University (2007-2011)**

- *Senior Science Policy Advisor to the President*
- *Director for Strategic Institutional Transformation, Office of the President*
- *Professor of Practice in Climate Adaptation Policy & Institutional Design, School of Geographical Sciences and Urban Planning*

Provided the University President with strategic guidance for the transition toward the “*New American University*.” Instructed, guest lectured, served on graduate student committees, and conducted research on climate adaptation policy, institutional design, bridging science to solutions, sustainability & related fields. Served on the University Leadership Council, and on the Executive Management Committee of the Global Institute of Sustainability.

**Arizona State University (2003 - 2007)**

- *Special Advisor to the President*
- *Executive Director, Presidential Council on New Colleges and Schools*
- *Founding Executive Director, President’s Office of Sustainability Initiatives*

Led conceptualization, design and establishment of new colleges and schools, including the university-wide *Global Institute of Sustainability* and its degree-granting *School of Sustainability*

**National Oceanic & Atmospheric Administration (NOAA) (1990 - 2003)**

- *Director, Climate and Societal Interactions Division*
- *Assistant Director, Office of Global Programs*

Led the conceptualization, design, establishment, budget formulation and provided overall management of the U.S. NOAA integrated, multidisciplinary research and applications programs positioned at the climate and societal interface. These included the Regional Integrated Sciences and Assessments Program, the International Applications Research Program, the International Research Institute for Climate and Society, the Inter-American Institute for Global Change Research, the Science and Technology for Sustainable Development Program, the Health and Human Dimensions Research Program, among others.

**National Oceanic & Atmospheric Administration (1985 -1990)**

- *Program Manager, Research Applications Program, Office of Global Programs*

Responsible for the design, implementation and management of national and international physical/social science research and applications programs aimed at providing “environmental solutions” for decisions, by linking the impacts of the physical climate system to social and economic processes.

**National Oceanic & Atmospheric Administration (1984-1985)**

- *Deputy Chief, International Programs Branch, Oceanic and Atmospheric Research*

Initiated, established and managed intergovernmental climate research programs with China, Japan, Brazil, Mexico, Chile, Indonesia and France, among others.

## Education

**Master in Marine Affairs**, School of Marine Affairs, University of Washington, Seattle (2002)  
- Senator, Graduate and Professional Student Senate and Student Representative to Faculty.

**Graduate Certificate, Integrative Program in Administration**, Graduate School of Business  
University of Washington, Seattle (1983)

**Bachelor of Science**, Department of Oceanography, University of Washington, Seattle (1983)

## Selected Publications

Kittipongvises, S., Phetrak, A., Rattanapun, P., Brundiars, K., **Buizer, J.L.**, Melnick, R. (2020) AHP-GIS analysis for flood hazard assessment of the communities nearby the world heritage site on Ayutthaya Island, Thailand. *International Journal of Disaster Risk Reduction*

A.W. Robertson, Acharya, N., Goddard, L., Pattanaik, D.R., A. K. Sahai, K.K., Singh, K.K., Ghosh, K., Agarwal, A., **Buizer, J.L.** (2019) Subseasonal forecasts of the 2018 Indian Summer Monsoon over Bihar. *Journal of Geophysical Research - Atmospheres*

Gerlak, A.K., S.J. Mason, M. Daly, D. Liverman, Z. Guido, M. Bruno Soares, C. Vaughan, C. Greene, **J. Buizer**, K. Jacobs (2019) The Gnat and the Bull: Do Climate Outlook Forums Make a Difference? *Bulletin of the American Meteorological Society* D-19-0008.

Smith, J.B., M. Muth, A. Alpert, **J.L. Buizer**, J. Cook, A. Dave, J. Furlow, K. Preston, P. Schultz, and L. Vaughan, 2018. Climate Effects on U.S. International Interests. In *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 604–637. doi: 10.7930/NCA4. 2018. CH16

Furlow, J., **J. Buizer**, S. Mason, G. Brown, 2018. Supporting Farmers Facing Drought: Lessons from a Climate Service in Jamaica (Chapter 18) in *Resilience: The Science of Adaptation*. Published by Elsevier Press

Garfin, G. M., Jacobs, K. L., & **Buizer, J. L.**, 2018. Pima County Climate Policy Brief. In Pima County Sustainability Program.  
[https://webcms.pima.gov/UserFiles/Servers/Server\\_6/File/Government/Administration/CHHmemosFor%20Web/2018/October/Resolution%20In%20Support%20of%20](https://webcms.pima.gov/UserFiles/Servers/Server_6/File/Government/Administration/CHHmemosFor%20Web/2018/October/Resolution%20In%20Support%20of%20)

Gerlak, A.K., Z. Guido, C. Vaughan, V. Rountree, C. Greene, D. Liverman, A.R. Trotman, R. Mahon, S. Cox, S.J. Mason, K.L. Jacobs, **J.L. Buizer**, C.J. Van Meerbeeck, and W.E. Baethgen, 2018. Building a Framework for Process-Oriented Evaluation of Regional Climate Outlook Forums. *Weather, Climate & Society*, 10, 225–239, <https://doi.org/10.1175/WCAS-D-17-0029.1>

Jacobs, K.L., **J.L. Buizer** and S.C. Moser, 2016. The Third US National Climate Assessment: Innovations in Science and Engagement, *Climatic Change* 135: 1. doi:10.1007/s10584-016-1621-5

Jacobs, K., and **J.L. Buizer**, 2016. Foreword to *Climate in Context: Science and Society Partnering for Adaptation*. New York, Wiley, ISBN: 978-1-118-47479-2.

**Buizer, J.**, K. Jacobs, & D. Cash, 2016. Making short-term climate forecasts useful: Linking science and action, *Proceedings of the National Academy of Sciences*, doi: 10.1073/pnas.0900518107

Jacobs, K., L. Lebel, **J. Buizer**, L. Addams, P. Matson, E. McCullough, P. Garden, G. Saliba, and T. Finan, 2016. Linking Knowledge with Action in the Pursuit of Sustainable Water Resources Management, *Proceedings of the National Academy of Sciences*, doi:10.1073/pnas.0813125107

Hart, D.L., **J. L. Buizer**, J. A. Foley, L. E. Gilbert, L.J. Graumlich, A. R. Kapuscinski, J. G. Kramer, M. A. Palmer, D. R. Peart, L. Silka, 2016. Mobilizing the power of higher education to tackle the grand challenge of sustainability: Lessons from novel initiatives. *Elementa: Science of the Anthropocene* doi: 10.12952/journal.elementa.000090.

Moser, S.C., J.M. Melillo, K.L. Jacobs, R.H. Moss, **J.L. Buizer**, 2015. Aspirations and Common Tensions: Larger Lessons from the Third U.S. National Climate Assessment. *Climatic Change* doi: 10.1007/s10584-015-1530-z

Jacobs, K.L. and **J.L. Buizer**, 2015. Building community, credibility and knowledge: the third U.S. National Climate Assessment. *Climatic Change* doi:10.1007/s10584-015-1445-8

Rahman, T., **J. Buizer**, and Z. Guido, 2015. Economic Valuation of Seasonal Forecast Information Service in Jamaica, 2014-2015. A report prepared for Engility Corporation, Chantilly, VA, USA. Reviewed and accepted by USAID.

**Buizer, J.L.**, K. Dow, M.E. Black, K.L. Jacobs, A. Waple, R.H. Moss, S. Moser, D.I. Gustafson, T.C. Richmond, S.L. Hays, C.B. Field, 2015. Building a Sustained Climate Assessment Process. *Climatic Change* doi: 10.1007/s10584-015-1501-4

Guido, Z., **J. Buizer**, T. Finan, S. Gavin, A. Gerlak, L. Goddard, C. Greene, Johnson, R., D. Liverman, S. Mason, A. Muñoz, 2014. An International Research and Applications Project (IRAP) Caribbean Workshop Report: Integrating Climate Information and Decision Processes for Regional Climate Resilience. University of Arizona and International Research Institute for Climate and Society. pp. 48.

Hall, J. A., M. Blair, **J.L. Buizer**, D. I. Gustafson, B. Holland, S. C. Moser, and A. M. Waple, 2014: Ch. 30. Sustained Assessment: A New Vision for Future U.S. Assessments. *Climate Change Impacts in the United States: The Third National Climate Assessment*, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 719-726. doi:10.7930/J000001G.

Jacoby, H. D., A. C. Janetos, R. Birdsey, **J. Buizer**, K. Calvin, F. de la Chesnaye, D. Schimel, I. Sue Wing, R. Detchon, J. Edmonds, L. Russell, and J. West, 2014: Ch. 27: Mitigation. *Climate Change Impacts in the United States: The Third National Climate Assessment*, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 648-669. doi:10.7930/J0C8276J.

**Buizer, J.L.**, P. Fleming, S.L. Hays, K. Dow, C.B. Field, D. Gustafson, A. Luers, R.H. Moss, 2013. Preparing the Nation for Change: Building a Sustained National Climate Assessment Process, National Climate Assessment Development and Advisory Committee.

White D. D., R. Quay, D.B. Ferguson, **J.L. Buizer**, Z. Guido, and N. Chhetri, 2013. Linking climate change science and adaptation policy at the community scale through anticipatory governance: A review of concepts with application to Arizona communities. Invited presentation for the American Geophysical Union Annual Meeting, San Francisco, CA (Dec 2012)

Wheeler, Q.D., S. Knapp, D. W. Stevenson, J. Stevenson, S. D. Blum, B. M. Boom, G. G. Borisy, **J.L. Buizer**, et al., 2012. Mapping the biosphere: exploring species to understand the origin, organization and sustainability of biodiversity. *Systematics and Biodiversity*. 10:1, 1-20

Van Der Leeuw, S. E., A. D. Wiek, J. Harlow and **J.L. Buizer**, 2012. How much time do we have? Urgency and rhetoric in *sustainability science*. *Sustainability Science* 7 (Supplement 1):115-120. DOI: 10.1007/s11625-011-0153-1

National Research Council. 2011. America's Climate Choices: Adapting to the Impacts of Climate Change. (Jacobs and Wilbanks, Chairs). National Academies Press, Washington, D.C.

**Buizer, J.L.**, et al. Higher Education's role in Adapting to a Changing Climate. 2011. American College and University Presidents' Climate Commitment, Boston, MA. ([link](#))

**Buizer, J.L.**, K. Jacobs and D. Cash, 2010. Making short-term climate forecasts useful: Linking science and action. *Proceedings of the National Academy of Sciences*. doi:10.1073/pnas.0900518107 ([link](#))

Jacobs, K., L. Lebel, **J. Buizer**, L. Addams, P. Matson, E. McCullough, P. Garden, G. Saliba, and T. Finan, 2010: Linking Knowledge with Action in the Pursuit of Sustainable Water Resources Management. <http://www.pnas.org/content/early/2010/06/25/0813125107.full.pdf> Proceedings of the National Academy of Sciences.

Jacobs, K., G. Garfin and **J. Buizer**, 2009. The Science-Policy Interface: Experience of a workshop for climate change researchers and water managers. *Science and Public Policy*. 36(10), pp 791-798.

Jacobs, K., **J. Buizer**, M. Roy, N. Beller-Simms, eds., 2009. Planning Integrated Research for Decision Support for Climate Adaptation and Water Management: A Focus on Desert and Coastal Cities. Arizona State University.

Garfin, G., K. Jacobs and **J. Buizer**, 2009. Climate Change Adaptation Lessons from the Land of Dry Heat. Webb, R.M.T., and Semmens, D.J., eds. Planning for an uncertain future: Monitoring, integration, and adaptation. Proceedings of the Third Interagency Conference on Research in the Watersheds. U.S. Geological Survey Scientific Investigation Report 2009-5049, 292 p.

**J. Buizer**, 2009. The Global Institute of Sustainability at Arizona State University: A Comprehensive Approach to Sustainability Education in Proceedings of the International Conference on Sustainability Science., University of Tokyo, Japan.

Jacobs, K. **J. Buizer**, M. Roy, N. Beller-Simms, editors. 2009. Planning Integrated Research for Decision Support for Climate Adaptation and Water Management: A Focus on Desert and Coastal Cities, Workshop Report, Arizona State University,

**J. Buizer**, 2008. Sustainability Science and the American Research University; in Proceedings of the 5th BMBF Forum for Sustainability: “Research for Sustainability - Driver for Innovation,” Federal Ministry of Research and Education, Berlin, Germany, September 23-25, 2008.

Garfin, G., K. Jacobs, **J. Buizer**, 2008. Beyond brainstorming: Exploring climate change adaptation strategies, *Eos*, 89(25): 227. doi: 10.1029/2008EO250007

**J. Buizer**, 2007. Sustainability Thinking Starts at Home, in Arizona Policy Choices: Sustainability for Arizona, Morrison Institute for Public Policy, ASU, p.60

J. Melillo, A. Rock, A. Rangel, **J. Buizer**, G. Gallopin, M. Gupta, G. McBean, E. Miles, H. Virji, 2007. Report of the External Review Committee Assessment of the Inter American Institute for Global Change Research, 2007. AAAS International Office.

K. Jacobs and **J. Buizer**, 2006. Linking Knowledge with Action in the pursuit of Sustainable Water Resources Management: Summary of a Workshop; Knowledge Systems for Sustainable Development Project, Harvard University

Cash, D.W., and **J. Buizer**, 2005. Knowledge-Action Systems for Seasonal to Interannual Climate Forecasting: Summary of a Workshop; Roundtable on Science and Technology for Sustainability; The National Academies Press, Washington, D.C.

**J. Buizer** with OGP Climate and Societal Interactions Staff, 2002. Climate and Societal Interactions: A Decade of Growth and Exploration. NOAA Office of Global Programs

**J. Buizer**, J. Foster, and D. Lund, 2000. Global Impacts and Regional Actions: Preparing for the 1997/98 El Niño. Bulletin of the American Meteorological Society, Vol. 81, #9, pp. 2121-39

Brown, L.B., P.E. Filmer, **J. Buizer**, 2000. Regional cooperation in global change research; unique opportunities and unique challenges. EOS Transactions, American Geophysical Union 81 (48 suppl.), San Francisco, CA, American Geophysical Union

**J. Buizer**, 1988. Research Programs for the Application of Climate Forecast. Editorial in The ENSO Signal, Issue 10.

JM Trtanj & **J. Buizer**, 1997. Applying Climate Forecasts: Exploring the El Niño-Infectious Disease Connection. American Geophysical Union, San Francisco, CA.

**J. L. Buizer**, et al. 1996. International Forum on Forecasting El Niño: Launching an International Research Institute, 6-8 November 1995, *Washington, D.C.*; Forum Proceedings NOAA Office of Global Programs (1996)

## ***Select Accomplishments***

Co-Chaired the Organizing Committee and Hosted the 2017 National Conference of the Association for Environmental Studies and Sciences

Led authorship of *Preparing the Nation for Change: Building a Sustained National Climate Assessment Process*, as recommendations to the U.S Government from the National Climate Assessment Development and Advisory Committee. September 2013

Designed and launched the University Center for Integrated Solutions to Climate Challenges, ASU, 2011

Guided production and presentation of ASU Carbon Neutrality Plan in compliance with the American College and University President's Climate Commitment, September 2009

Led design and launch of ASU's nationally top-ranked and internationally renowned Global Institute of Sustainability (GIOS) as a pan-university program, July 2007

Co-led conceptualization, design and launch of the American College and University Presidents Climate Commitment (ACUPCC), June 2007

Led establishment of the ASU School of Sustainability, the first independent degree-granting unit dedicated to sustainability in the world. December 2006

Led successful effort to secure private donor funding for the establishment of the Global Institute of Sustainability at ASU. November 2004

Led conceptualization of the ASU *Decision Theater*, to serve as a "gateway" between the University and the policy communities for research-based sustainability solutions. May 2005

Led conceptualization and initial design of Regional Climate Outlook Forums, which have become the *de facto* regional climate information mechanism throughout Africa, Latin America and Asia. October 1996

Led the design and establishment of the NOAA-funded International Research Institute for Climate and Society at Columbia University (1995)

Led conceptualization and initial design of Regional Integrated Sciences and Assessment (RISA) Program, now recognized as a model for providing science-based climate information to resource managers and policy-makers (1994)

Led components of the design and establishment of the twenty-three nation Inter-American Institute for Global Change Research (1991)

## ***Awards***

*Nobel Peace Prize (shared)*: Shared with scientists around the world who contributed to the reports of the Intergovernmental Panel for Climate Change "for their efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change" (2008)

*U.S. Department of Commerce Bronze Medal*: "For Superior Federal Service by leading the multi-Federal Agency operation of climate forecasting applied in support of international relief efforts during the March/April 2000 disastrous floods in southern Africa" (2000)

*U.S. Department of Commerce Bronze Medal*: "For Superior Federal Service in an extraordinary contribution to the design, development and implementation of the 1997/98 El Niño Rapid Response Project which resulted in substantial damage reduction and cost saving for the American people" (1999)

*NOAA Administrator's Award*: "For leadership in formulating and managing the scientific component of the White House Weathercasters Climate Change Conference" (1998)

*NOAA Outstanding Achievement Award*: "For Outstanding Achievement in the Conduct of Federal Service" (annually, 1985 through 2003)

## ***International Experience***

Principal Investigator and Co-Director, *Integrating Climate Information and Decision Processes for Regional Climate Resilience Program* – with Columbia University - in the Caribbean, South and Southeast Asia and West Africa, funded by NOAA & USAID (2013-2019)

Chaired International Steering Committee for the *International Conference on Sustainability Science*, Arizona State University. February 2012

Served as External Reviewer of the *Graduate Program in Sustainability Science*, University of Tokyo, Tokyo, Japan. January 2009

Participated actively in the 2008 Nobel Peace Prize winning effort by the Intergovernmental Panel on Climate Change (IPCC) to demonstrate impacts of Climate Change on social and economic systems

Served as sole External Reviewer of the *Strategic Interdisciplinary Themes* housed in the Office of the President of the Dublin City University; Dublin, Ireland. March 2007

Served as Lead reviewer on the International Review Team for the *Managing Climate Variability* Program of the Government of Australia; Adelaide, Australia. March 2006

Served as a lead Advisor to the ASU President at the China-U.S. Presidential Forum on University Design, Chengdu, China. June 2005

Successfully negotiated bilateral intergovernmental agreements for collaboration in climate science and applications of research results with China, Japan, Taiwan, Indonesia, Korea, France,



Italy, Brazil, Chile, Ecuador and Mexico (1986–2003)

Served as Select Member of Official U.S. Delegations to numerous international forums such as meetings of the Asia-Pacific Economic Community (APEC) the South Pacific Forum, the Summit of the Americas, the United Nations World Meteorological Organization and Intergovernmental Oceanographic Commission (1988-2003)

Served as NOAA Representative on environmental and scientific missions to more than 40 countries around the world (1984–2003)

Organized and convened more than 25 International Conferences and Workshops dedicated to advancing the understanding of challenges and opportunities in the application of climate information for practical use in decision processes (1988-2003)

Served as Advisor to high-level U.S. State Department-led climate bilateral negotiations with China, Korea, Australia, New Zealand, Mexico and Brazil (2002-2003).

Served as Vice Chairman on the International Working Group of the Inter-Agency Committee governing the U.S. Global Change Research Program (1992-2003)

Served as advisor to the Organization of American States (OAS), The World Bank, the Asia Development Bank (ADB), the Inter-American Development Bank (IDB), and the U.S. Agency for International Development (USAID) on climate issues (1988-2003)

Participated as Member on 12 Official U.S. Delegations to Meetings of the Executive Council and Conference of the Parties of the Inter-American Institute for Global Change (1992-2002)

### ***Special Projects***

*Intergovernmental Panel on Climate Change:* Led the U.S. Government Review of the Third Assessment Report of the IPCC Working Group II (2000)

*White House Weathercasters Climate Change Conference:* Designed and managed the scientific component of the Conference for President Bill Clinton and Vice President Al Gore (1997)

*International Forum on Forecasting El Niño: Launching an International Research Institute:* Directed all aspects of design, implementation and follow-up of this Ministerial-level Conference of over 300 representatives from 40 nations and 22 international organizations (1995)

*White House Conference on Science and Economics of Global Change:* Coordinated aspects related to the participation of International Ministerial-level participants at this meeting hosted by President George Bush & attended by 8 U.S. Cabinet Members (1990)

***Languages:*** Professional fluency (native) in *Spanish*; moderate proficiency in *Portuguese*.