

Climate Change Resilience: Governance and Reforms | June 5-6, 2014

American Association for the Advancement of Science, 1200 New York Ave N.W., Washington, D.C.

Governance determines who can do what to whom, and on whose authority.

Governance is “the exercise of economic, political and administrative authority to manage a country’s affairs at all levels. It comprises mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences.” (*Governance for Sustainable Human Development*, United Nations Development Programme, 1997).

“Governance is all the processes through which collective decisions are made, implemented, interpreted, and reformed... processes that are shaped not only by formal government officials but also by private individuals, corporations, and a diverse array of professional associations, community-based organizations, and voluntary/non-profit/non-governmental organizations...” (Adapted from the *Updated Guide to IAD [Institutional Analysis and Development]* and the *Language of the Ostrom Workshop*, Michael McGinnis, 2013).



Linda Frost

Issues of governance will shape resilience to climate change. Governance in the context of climate change adaptation raises important questions:

- In what situations are resilience-related choices made?
- How are conflicts resolved?
- What creative steps are communities taking to increase resilience and what barriers are they encountering? How can people change those barriers?
- How can governmental organizations be more effective at facilitating resilience?

Organized by

James Nachbaur
Elise Lipkowitz
Darshan Karwat
Irina Feygina



Sponsored by

Energy/Climate Fellows & Alumni
Social Science Fellows & Alumni

With help from Bioneers

Day1 - June 5

8 AM Registration and Breakfast

8:40 Welcome

James Nachbaur, AAAS Fellow

9 Perspectives on Resilience and Change

Rear Admiral David Titley, Director, Center for Solutions to Weather and Climate Risk, Penn State University

9:35 Terms and Arenas for Preparedness and Resilience Action

We introduce key terms – especially resilience and governance – and begin to identify the many arenas in which actions to increase resilience can occur.

Laura Petes, Senior Policy Advisor, Climate Adaptation and Ecosystems, Office of Science and Technology Policy
Vivian Thomson, Associate Professor, Department of Environmental Sciences and Department of Politics, University of Virginia

Moderator: Elise Lipkowitz, AAAS Fellow

10:10 Break

10:25 Current Federal Efforts

We explore federal government activities related to resilience and how federal government activities connect with formal and informal activities by other levels of government, the private sector, and civil society.

Susan Ruffo, Associate Director for Climate Preparedness, White House Council on Environmental Quality

Laura Petes, Senior Policy Advisor, Climate Adaptation and Ecosystems, Office of Science and Technology Policy

Alice Hill, Senior Advisor for Preparedness and Resilience, National Security Council

Moderator: Elise Lipkowitz, AAAS Fellow

11:15 How Conflicts Inherent in Preparedness and Resilience Are Handled Today

We discuss if and how tensions within and between the arenas and forums mentioned are or are not resolved.

Marcy Rockman, Climate Change Adaptation Coordinator for Cultural Resources at National Park Service

Jalonne White-Newsome, Environmental Justice Federal Policy Analyst, WE ACT for Environmental Justice

Megan Susman, Office of Sustainable Communities, U.S. EPA

Alice Madden, Principal Deputy Assistant Secretary for Intergovernmental & External Affairs, U.S. DOE

Jessica Grannis, Adaptation Program Manager, Georgetown Climate Center

Moderator: James Nachbaur, AAAS Fellow

12:45 PM Lunch Discussions in Small Groups

Self-organized

2 PM	Enabling and Regulating Corporate Actions in Preparedness and Resilience Efforts	<p>Michael Gerrard, Director, Center for Climate Change Law, Columbia Law School</p> <p>Jackie Roberts, Chief Sustainability Officer, The Carlyle Group</p> <p>Lindene Patton, Chief Climate Product Officer, Zurich Financial Services</p> <p>Jeff Hopkins, Vice President for Policy and Analysis, Center for Climate and Energy Solutions</p> <p><i>Moderator: David Hunter</i>, Senior Government Representative for Environment, Industry and International Affairs, Electric Power Research Institute</p>
3:15	Break	
3:30	Making Water Systems More Resilient	<p>Jonathan Reeves, Manager, Office of Emergency Management, DC Water</p> <p>Susan Leal, Chief Strategy Officer and Senior Vice President for Water in the Americas, AECOM</p> <p>Lindene Patton, Chief Climate Product Officer, Zurich Financial Services</p> <p><i>Moderator: Pilar Thomas</i>, Deputy Director, Office of Indian Energy Policy and Programs, U.S. DOE</p>
4:45	Closing Comments and Discussion	<p>David Orr, Paul Sears Distinguished Professor of Environmental Studies and Politics and Senior Adviser to the President, Oberlin College</p> <p><i>In conversation with: Kate Sheppard</i>, Senior Reporter and Environment and Energy Editor, <i>Huffington Post</i></p>
5:30	Resource Sharing with Refreshments	
7	End of Day 1	

Day 2 – June 6

8 AM	Registration and Breakfast	
8:45	Perspectives on Day 1	Michael Dorsey , Interim Director, Program on Energy & Environment, Joint Center for Political and Economic Studies
9:15	Perspectives on Resilience and Change	Helen Kanovsky , Acting Deputy Secretary of the Department of Housing and Urban Development
9:45	Lessons from Disasters How have communities and cities responded in the immediate aftermath of natural disasters, and developed long-term strategies for recovery? What lessons are emerging for improvements to city planning and governance practices to build resilience? How do we meet immediate needs without sacrificing long-term goals?	Barbara Allen , Professor and Co-Director, Department of Science and Technology in Society, Virginia Tech Nate Kleinman , Steering Committee, Cumberland County Long-Term Recovery Group, New Jersey Daniel Wallach , Executive Director and Founder, Greensburg GreenTown <i>Moderator: Irina Feygina</i> , AAAS Fellow
11:00	Break	
11:15	Benefits and Perils of “Disaster Thinking” What are the advantages and shortcomings of envisioning climate change as a series of disasters? How can we respond to disasters with a more long term and strategic perspective? And what does this mean for how individuals, communities, businesses, and governments should organize their adaptation responses?	Sabrina McCormick , Associate Professor, Environmental and Occupational Health, George Washington University Jonathan Reeves , Manager, Office of Emergency Management, DC Water <i>Moderator: Irina Feygina</i> , AAAS Fellow
12 Noon	Urban Resilience	Nancy Kete , Managing Director, Rockefeller Foundation
12:30 PM	Discussion with Disaster Speakers	<i>Moderators: Irina Feygina and Elise Lipkowitz</i> , AAAS Fellows
1	Lunch Discussions in Small Groups	
2:15	Should the Rules be Changed? We examine the extent to which resilience can be improved within the current system and rules and consider where and how aspects or levels of our governance systems might need to be adapted so communities can better address the challenges posed by climate change.	Michael Dorsey , Interim Director, Program on Energy & Environment, Joint Center for Political and Economic Studies Victor Flatt , Director, Center for Law, Environment, Adaptation, and Resources, University of North Carolina School of Law Jessica Grannis , Adaptation Program Manager, Georgetown Climate Center <i>Moderator: Darshan Karwat</i> , AAAS Fellow
3	Synthesis and Key Insights	Summit Organizers and Participants
3:30	Closing Comments	Gar Alperovitz , Lionel R. Bauman Professor of Political Economy, University of Maryland
4	Summit Ends	

Speakers and Moderators

Dr. Barbara Allen

Professor and Co-Director
Dept. of Science and Tech. in Society
Virginia Tech - National Capital Region

Barbara Allen teaches courses on science, technology and social justice, the sociology of knowledge, and public participation in science and technology. She is author of *Uneasy Alchemy: Citizens and Experts in Louisiana's Chemical Corridor Disputes* and co-editor of several books including, *Dynamics of Disaster: Lessons on Risk, Response and Recovery*. She has written on the public understanding of science, environmental health movements, environmental knowledge controversies, and environmental justice in post-Katrina New Orleans. She is currently writing a book comparing citizen participation in shaping policy-relevant science within environmental health movements in Europe and the U.S. She taught architectural technology and historic preservation and is a big fan of south Louisiana's many music festivals.

Dr. Gar Alperovitz

Lionel R. Bauman Professor of Political
Economy
University of Maryland

Gar Alperovitz has had a distinguished career as an historian, political economist, activist, writer, and government official. He is the author of critically acclaimed books on the atomic bomb and atomic diplomacy and his articles have appeared in *The New York Times*, *The Washington Post*, *The Los Angeles Times*, *The New Republic*, *The Nation*, and *The Atlantic*. He has been a guest on numerous network TV and cable news programs. Alperovitz is the architect of the first modern steel industry attempt at worker ownership in Youngstown, Ohio. He is also the president of the National Center for Economic and Security Alternatives and is a founding principal of the University of Maryland-based Democracy Collaborative, a research institution developing practical, policy-focused, and systematic paths towards ecologically sustainable, community-oriented change and the democratization of wealth.

Dr. Michael Dorsey

Interim Director, Program on Energy &
Environment
Joint Center for Political and Economic
Studies

Michael Dorsey is the Interim Director of the energy and environment program at the Joint Center for Political and Economic Studies. He provides strategic guidance to governments, foundations, firms and a multitude of others on the interplay of multilateral environment policy, finance and economic development matters. His scholarly work focuses, in part, on how multilateral finance instruments impact climate and biodiversity policy. In 1992, he was a member of the U.S. State Department Delegation to the United Nations Conference on Environment and Development, "The Earth Summit." From 1994-96 he was a task force member of President Clinton's Council on Sustainable Development. He served seven years as a Director on the Sierra Club's national board. He has worked worldwide, including at the African Centre for Technology Studies, the University of Witwatersrand in Johannesburg, and the University of KwaZulu-Natal, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), The Royal University of Groningen, and the Department of Regional Planning at the Royal Institute of Technology, Sweden. In July 2010 Lisa Jackson, the U.S. Environmental Protection Agency Administrator, appointed him to the EPA's National Advisory Committee.

Dr. Irina Feygina
AAAS Fellow

Irina Feygina is a social psychologist who tackles environmental challenges. At NYU, she researched how people's powerful connection to established socioeconomic systems hinders effective responses to climate change, and developed interventions that foster sustainable behavior. As a postdoctoral fellow at Rutgers University she investigated the impact of energy efficient building design and retrofits on occupants and developed psychologically informed policies and planning guidelines. She organizes interdisciplinary meetings on sustainability and social justice, and teaches courses at the intersection of psychology and environmental studies. Her perspective is influenced by her diverse experiences of growing up in the Former Soviet Union and immigration to the U.S., her international work, most formatively among Tibetan refugees on the Indian subcontinent, and as a journalist and interpreter in multicultural organizations. Currently, she is a Congressional Fellow sponsored by the American Psychological Association, working on legislative issues of natural resource management and conservation; renewables, biofuels, and shale energy development and regulation; energy efficiency; agricultural policy; and severe weather resilience and adaptation. She enjoys working at the intersection of science and policy, and applying a multidisciplinary approach that integrates the natural and social sciences toward fostering sustainable development.

Victor Flatt
Director, Center for Law, Environment,
Adaptation, and Resources (CLEAR)
University of North Carolina School of
Law

Victor Flatt comes from the "Flatts" of the Cumberland Plateau in Tennessee, where the name is as common as Smith or Jones. Lester Flatt (of Flatt and Scruggs and Beverly Hillbillies fame) is a cousin. Coming from this background, he has always been concerned for the poorer in our society, and these are exactly the people who will be hurt most by climate change. He has written many articles and opinion pieces on environmental law and climate change, and the most important point that he would like to be remembered for is invigorating the idea of a "right" to a clean environment.

Michael Gerrard
Director, Center for Climate Change Law
Columbia Law School

Michael Gerrard is Andrew Sabin Professor of Professional Practice at Columbia Law School, where he teaches courses on environmental and energy law and directs the Center for Climate Change Law. He is also Associate Chair of the Faculty of Columbia's Earth Institute. Previously, he was a partner in the 110-lawyer New York office of Arnold & Porter LLP; he is now Senior Counsel to the firm. He practiced environmental law in New York City full time from 1979 to 2008 and tried numerous cases and argued many appeals in federal and state courts and administrative tribunals. He has served as a member of the executive committees of the boards of the Environmental Law Institute and the American College of Environmental Lawyers. He is author or editor of eleven books, including *The Law of Adaptation to Climate Change: U.S. and International Aspects* (with Katrina F. Kuh); *Global Climate Change and U.S. Law*; and the *Environmental Law Practice Guide*.

Jessica Grannis
Adaptation Program Manager
Georgetown Climate Center

Jessica Grannis oversees staff and student research and analysis of federal, state and local adaptation efforts. Her recent publications include an *Adaptation Tool Kit for Sea Level Rise* and a book chapter on Coastal Retreat in the Law of Climate Change: U.S. and International Aspects (with Peter Byrne). She was previously staff counsel for the California State Coastal Conservancy and the Ocean Protection Council.

The Honorable Alice Hill
Senior Advisor for Preparedness and Resilience
National Security Council

Retired Judge Alice Hill joined the White House National Security Council staff in September 2013. She serves as the principal advisor on preparedness and resilience issues arising from climate change. Her duties include providing advice and counsel on implementation of the President's Climate Action Plan, developing policy regarding building resilient infrastructure, removing barriers to ensuring resiliency, promoting creation of innovative delivery of climate change related information, fostering regional coordination of federal climate preparedness and resilience services, and leading interagency policy groups. Previously, she served as Senior Counselor to Secretary of the Department of Homeland Security Janet Napolitano. In that capacity, she chaired the Department's Executive Steering Committee on Climate Change Adaptation that developed the Department's first-ever plans for adapting to extreme weather and climate change. Prior to her work in D.C., she served as a judge on the Los Angeles Superior Court as well as the Los Angeles Municipal Court. She received her law degree from the University of Virginia School of Law and her BA from Stanford University.

Dr. Jeff Hopkins
Vice President for Policy and Analysis
Center for Climate and Energy Solutions

Jeff Hopkins manages programs related to the energy, power, and transportation sectors. He has more than fifteen years of private and public sector experience in economic and environmental policy analysis focused on the global energy sector and trends in best regulatory practice, especially in mining and agriculture. Prior to joining the Center for Climate and Energy Solutions, he worked for seven years at Rio Tinto on energy and climate policies, leading their climate policy engagement in the United States and Canada and working with their globally-distributed community of practice. He previously was acting chief economist for the House Budget Committee, where he oversaw the agriculture and natural resource budget functions during 2005 and 2006. He worked at the U.S. Department of Agriculture's Economic Research Service on a number of issues, including the impacts of farm policy on global competitiveness and environmental outcomes. He has a PhD from Ohio State University in Agriculture, Environment and Development Economics and was a Peace Corps Volunteer in Guatemala from 1987-1989.

Dr. David Hunter
Senior Government Representative,
Environment, Industry and International
Affairs
Electric Power Research Institute

David Hunter has more than twenty years of experience in energy and environmental science and policy. Prior to joining the Electric Power Research Institute, He was the founding U.S. Director of the International Emissions Trading Association and ran their state, regional, and federal programs at a time when emissions trading was one of the top two domestic issues in the U.S. He was a frequent national and international speaker on carbon policy. He previously spent nine years on Capitol Hill, where he was the principal energy, environment, and climate change adviser to Senator Susan Collins of Maine, Staff Scientist for the Senate Homeland Security and Governmental Affairs Committee, and a AAAS Congressional Science Fellow for Air, Energy, and Climate in the office of Senator Jim Jeffords of Vermont. He has also served as Executive Editor of the *Journal of Environment and Development*, was a Department of Energy Global Change Fellow at the White House Office on Environmental Policy/Council on Environmental Quality, and spent a year studying atmospheric aerosols at Brookhaven National Laboratory. He has a PhD in Earth Science from the Scripps Institution of Oceanography and a BS in Natural Resources from Cornell University.

Helen Kanovsky
Acting Deputy Secretary of the
Department of Housing and Urban
Development

Helen Kanovsky was sworn in by Secretary Shaun Donovan as the General Counsel of the U.S. Department of Housing and Urban Development on May 4, 2009. Prior to coming to HUD, she served as Chief Operating Officer and General Counsel of the AFL-CIO Housing Investment Trust. During 1998-99, she was Chief of Staff to Senator John Kerry of Massachusetts. She has also served in the federal government as a Special Assistant to Secretary of Housing and Urban Development Patricia Roberts Harris. She went with Secretary Harris to the Department of Health, Education and Welfare where she served as Special Assistant to the Secretary and Associate Executive Secretary to the Department which became the Department of Health and Human Services. Prior to becoming General Counsel of HUD, she served as Chair of the National Housing Conference (NHC) and as a member of the Board of the NHC's research affiliate, the Center for Housing Policy. She holds an AB cum laude in Government from Cornell University where she was Phi Beta Kappa. She received her JD cum laude from the Harvard Law School in 1976.

Dr. Darshan Karwat
AAAS Fellow

Darshan Karwat is a first-year AAAS Science and Technology Policy Fellow on the Innovation Team at the U.S. Environmental Protection Agency in Washington, D.C. He received his BSE in Aerospace Engineering (2007) and PhD in Aerospace Engineering and Sustainability Ethics (2012), both from the University of Michigan. His current research focuses on the combustion chemistry of biofuel blends, and on creating a paradigm for activist engineering that incorporates social justice and ecological sustainability concerns into engineering practice and design. He is the co-founder of the Student Sustainability Initiative at the University of Michigan, and maintains an active blog, Minimizing Entropy, which focuses broadly on issues of philosophy, culture, ethics, morality, environmentalism, limits, language, choice, climate, and justice (to name a few), and more specifically on individual activism in the face of the seemingly overwhelming socioecological challenges we face. He loves soccer, space, and cooking.

Dr. Nancy Kete
Managing Director
Rockefeller Foundation

Nancy Kete joined the Rockefeller Foundation in January 2012. She leads the foundation's global work on resilience, including developing strategies and practice for infusing resilience thinking throughout the foundation's work. During her twenty-five-year career in government, civil society, and the private sector, she brought technical, institutional, and managerial leadership to a number of major environment and societal challenges. She has been a diplomat, a climate change negotiator, a social entrepreneur, and a highly successful fundraiser. Before joining the Foundation, she spent thirteen years at the World Resources Institute, first as Director of the Climate, Energy, and Pollution Program and then as founder and Director of EMBARQ, a distinguished program that catalyzed environmentally sustainable transport solutions to improve quality of life in cities in Mexico, Brazil, India, Turkey and the Andean region. She also served on President Obama's National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling. Earlier in her career, she worked for the U.S. Environmental Protection Agency where she led the development of the acid rain control title of the 1990 Clean Air Act Amendments, the first and as yet most successful application of market instruments for pollution control. She holds a PhD in Geography and Environmental Engineering from Johns Hopkins University and BA in Geography from Southern Illinois University.

Nate Kleinman
Steering Committee, Cumberland
County Long-Term Recovery Group

Nate Kleinman is an activist, organizer, organic farmer, and recovering politician. A native of Philadelphia, he became active in the Occupy movement soon after its Philly incarnation began. He quickly quit his job as a Legislative Assistant to a State Representative and dove full-time into radical organizing. As an Occupier, Nate helped start the InterOccupy collective, helped initiate and organize the first Occupy National Gathering, ran for Congress, and, since Sandy hit, has been an organizer with Occupy Sandy, mainly in New Jersey. As part of his Sandy work, he serves on the Steering Committee of the Cumberland County Long Term Recovery Group; participated in a delegation to Cuba (also hit by Sandy); organized the "Occupy Christie" encampment in Trenton to coincide with Chris Christie's re-inauguration; and started Occupy Sandy New Jersey's weekly homelessness organizing calls, focused on homeless encampments near the Jersey Shore. Still active with Occupy Sandy, his newest project is the Experimental Farm Network, a collectively-run non-profit enterprise aimed at developing climate-change-mitigating crops and sustainable agricultural systems using a network-based model. As a first step, he and a friend are living on a farm in rural Salem County, New Jersey, trialing over 1,000 different plant varieties with a particular focus on breeding perennial vegetables, grains, and oilseeds. He has been playing and experimenting in fields, forests, and gardens since he was a toddler.

The Honorable Susan Leal
Chief Strategy Officer and Senior Vice
President for Water in the Americas
AECOM

Susan Leal is Chief Strategy Officer and Senior Vice President for Water in the Americas at AECOM. She is a water utility expert and author specializing in identifying realistic and creative solutions to the water-related challenges facing our world. She was a Senior Fellow of the Advanced Leadership Initiative at Harvard University in 2009-11. As part of her fellowship, she co-authored *Running Out of Water*, a book focused on solutions to our looming water crisis. She continues to serve as an Associate of the School of Engineering and Applied Sciences at Harvard. She is a member of the advisory board of the Department of Civil and Environmental Engineering at UC Berkeley, where she also received her undergraduate and law degrees. As General Manager of San Francisco's Public Utilities Commission, she led the charge for a dramatic upgrade of the Bay Area's seismically unsafe water system and San Francisco's outdated wastewater system. She previously served two terms as the elected Treasurer of the City and County of San Francisco and as a member of the San Francisco Board of Supervisors.

Dr. Elise Lipkowitz
AAAS Fellow

Elise Lipkowitz is a first-year AAAS Science and Technology Policy Fellow at the National Science Foundation where she serves as a policy analyst for the National Science Board. Previously, she was at the University of Michigan where she was a Postdoctoral Fellow in the university's interdisciplinary Society of Fellows and an Assistant Professor in the Department of History. Her interests—shaped by her current fellowship, history of science training, and prior career in public relations in the Silicon Valley—include the history and development of federal science policy, science communications, and the ways that civilizations understand and respond to climate change. She is currently completing a book exploring the effects of nationalism and the intensification of science-state relations during the French Revolution and the Napoleonic Wars on the European scientific community. She holds a PhD in History from Northwestern and a BA in History from Stanford.

The Honorable Alice Madden

Principal Deputy Assistant Secretary for
Intergovernmental & External Affairs
U.S. Department of Energy

Alice Madden started her career in the high tech industry and then practiced employment law for nine years before running for office. First elected in 2000, she served four terms in the Colorado House of Representative. Recognized as the architect of the stunning victories for progressives in 2004 and in 2006, her tenure included four years (2004-2008) as House Majority Leader. Her focus on sustainability and climate change sprang from her desire to preserve what makes the American West so special and she played an integral role in building the policy foundation for what is now referred to nationally as the New Energy Economy. She continued to apply her experience and passion for economic and environmental sustainability as Governor Ritter's Climate Change Advisor and Deputy Chief of Staff. She also served as a Senior Fellow on Climate Change at the Center for American Progress. She was appointed to her position at the U.S. Department of Energy in 2013.

Dr. Sabrina McCormick

Associate Professor, Department of
Environmental and Occupational Health
George Washington University

Sabrina McCormick is a sociologist and filmmaker. She takes an in-depth, mechanistic approach to understanding how climate change gets under the skin. She works on extreme impacts of climate-related phenomena like heat waves, emergent vector-borne disease, and climate-related disasters. She recently served as a Lead Author on the Special Assessment of the Nobel Prize-winning Intergovernmental Panel on Climate Change entitled "Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation." Her award-winning documentary film work aims to transform science into stories that compel social action. She is currently Associate Producer on "The Years of Living Dangerously," an eight-part Showtime series to air in 2014. She is currently Associate Professor in the Environmental and Occupational Health Department in the School of Public Health and Health Services at George Washington University, and Senior Fellow at the Wharton Risk Management and Decision Processes Center at the University of Pennsylvania.

Dr. James Nachbaur

AAAS Fellow

James Nachbaur was initially most engaged by math and computer programming but over the years has come to appreciate messier community, social, and policy issues. At Bowdoin College, his first economics class led him to abandon his applications to computational neuroscience PhD programs and instead apply to a new, interdisciplinary PhD program augmenting economics with natural science courses. At UC Santa Barbara and Indiana University, he worked on the economics of if, under what circumstances, how, and how sustainably, communities deal with threats to their livelihoods and with competition for common-pool resources. After a stint in consulting, he spent nearly three years applying economic theory, subject matter expertise, and quantitative skills to public policy issues in the non-partisan Legislative Analysts' Office in the California Legislature. He is in his second year as a AAAS Fellow.

Dr. David Orr

Paul Sears Distinguished Professor of Environmental Studies and Politics and Senior Adviser to the President
Oberlin College

David Orr is the executive director of the Oberlin project and a founding editor of the journal *Solutions*. He is the author of seven books, including *Down to the Wire: Confronting Climate Collapse* and co-editor of three others. He has authored nearly two hundred articles, reviews, book chapters, and professional publications. In the past twenty-five years he has served as a board member or adviser to eight foundations and on the Boards of many organizations including the Rocky Mountain Institute and the Aldo Leopold Foundation. Currently he is a Trustee of the Bioneers, Alliance for Sustainable Colorado, and the Worldwatch Institute. He has been awarded seven honorary degrees and a dozen other awards including a Lyndhurst Prize, a National Achievement Award from the National Wildlife Federation, and recently a "Visionary Leadership Award" from Second Nature. He has lectured at hundreds of colleges and universities throughout the U.S., Europe, and Asia.

Lindene Patton

Chief Climate Product Officer
Zurich Financial Services

Lindene Patton assumed her role at Zurich as Climate Product Officer on March 1, 2008. She is responsible for coordinating the product development and proposition management efforts related to the Group's response to climate change. She formerly was Senior Vice President and Counsel at Zurich Commercial Markets, part of Zurich North America. She joined Zurich in 1996 as Director of Risk Management at Zurich's Environmental Business Unit. Before that, she worked at Advanced Risk Management Services at Willis, and prior to that she was Associate General Counsel at EMCON, a company specialized in environmental engineering and landfill design. She holds a BA in Biochemistry from the University of California at Davis, an MA in Public Health from the University of California at Berkeley and a JD from Santa Clara University School of Law. An attorney licensed in the State of California and the District of Columbia, she serves as a member of several advisory boards, including the federal Environmental Financial Advisory Board.

Dr. Laura Petes

Senior Policy Advisor, Climate Adaptation and Ecosystems
Office of Science and Technology Policy

Laura Petes is the Senior Policy Advisor for Climate Adaptation and Ecosystems at the White House Office of Science & Technology Policy (OSTP). In this role, she is leading OSTP's engagement in activities to better prepare the U.S. and its citizens for climate change under the President's Climate Action Plan. Prior to coming to OSTP, she was serving as the Ecosystem Science Advisor in the National Oceanic and Atmospheric Administration Climate Program Office. She earned her BA at Cornell University and her PhD in Zoology (Marine Ecology) at Oregon State University. She has conducted research on marine animals around the U.S. and the world - studying coral reefs in the Florida Keys and Mexico, mussels in Oregon and New Zealand, and oysters in the Gulf of Mexico.

Jonathan Reeves
Manager, Office of Emergency
Management
District of Columbia Water and Sewer
Authority (DC Water)

Jonathan Reeves administers the Authority's emergency management program. The program is designed to follow four tenets: mitigation, preparedness, response and recovery. He directs emergency response and planning activities as well as the Authority's involvement in the National Capital Region Critical Infrastructure Protection Program. He developed and oversees a comprehensive National Incident Management System for the Authority that includes the Emergency Management Accreditation Program. He maintains relationships with industry, government and public service organizations to enhance the Authority's image and help meet its objects. Previously, he was a project manager and senior analyst and trainer at PCCI, an Alexandria-based firm. There he was responsible for crisis emergency management contingency plan review and training. He has a BA degree in environmental management from UC Canberra in Australia and is a member of the International Association of Emergency Managers.

Jackie Roberts
Chief Sustainability Officer
The Carlyle Group

Jackie Roberts leads Carlyle's global Environment, Social and Governance efforts and works closely with teams and companies to drive understanding and adoption of those principles and practices. Prior to joining Carlyle, she spent seventeen years at the Environmental Defense Fund where she launched and led the first-ever NGO-Business Corporate Partners, served as Director of Sustainable Technologies and Senior Director of the Climate and Energy Idea Bank. Previous jobs included a one-year faculty appointment at Harvard Business School and work as an engineer at EPA. She holds a BS in chemical engineering from Yale University, an MBA from the Yale School of Management, and an MA in environmental studies from the Yale School of Forestry and Environmental Studies. In her free time, she likes to play ice hockey.

Dr. Marcy Rockman
Climate Change Adaptation Coordinator
for Cultural Resources
National Park Service

Marcy Rockman is the NPS Climate Change Adaptation Coordinator for Cultural Resources, based in Washington, DC. She is an archaeologist by training and her research focus is how humans gather, share, remember, and transmit environmental information. She's done fieldwork across the American West, Europe, and the Middle East, worked in environmental compliance in many places, and came to DC as an AAAS Science & Technology Policy Fellow in which capacity she tackled social science in homeland security risk communication. Her current role addresses impacts of climate change on cultural resources and use of cultural resource information in federal- to global-level adaptation and resilience planning. She has many publications, including "Archaeology in Society: Its Relevance in the Modern World." She has a BSc in Geology from the College of William and Mary, and an MA and PhD in Anthropology from the University of Arizona, and is just now learning how to figure skate.

Susan Ruffo

Associate Director for Climate Preparedness
White House Council on Environmental Quality

Susan Ruffo is the Associate Director for Climate Preparedness at the White House Council on Environmental Quality. At CEQ, she leads implementation of the climate preparedness pillar of the President's Climate Action Plan. She also manages the President's State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience and the interagency Council on Climate Preparedness and Resilience, focusing on strengthening Federal programs to better prepare the United States for the impacts of climate change. Previously, she was the Director of Coastal and Marine Adaptation at The Nature Conservancy, where she led their strategy on coastal ecosystem-based adaptation, focusing on how ecosystems such as coral reefs and wetlands can help reduce human vulnerability to the impacts of climate change. She was also a Foreign Service Officer with the U.S. Department of State, where she served in the U.S. Embassies in China, Argentina and Nigeria and Washington D.C. She has degrees in Economics and Political Science from the Massachusetts Institute of Technology.

Kate Sheppard

Senior Reporter and Environment and Energy Editor
Huffington Post

Kate Sheppard is a senior reporter and the environment and energy editor at the *Huffington Post*. She previously reported for *Mother Jones*, *Grist*, and the *American Prospect*. Her writing has also been featured in the *New York Times*' Room for Debate blog, the *Guardian*, *Foreign Policy*, *High Country News*, and *The Center for Public Integrity*, *In These Times*, and *Bitch: Feminist Response to Pop Culture*. Her reporting has been recognized with awards from the Society of Environmental Journalists, the Online News Association, and Planned Parenthood.

Megan Susman

Office of Sustainable Communities
U.S. Environmental Protection Agency

Megan Susman is a senior policy analyst in EPA's Office of Sustainable Communities. She works on smart growth research, communications, technical assistance to communities, and other projects, on topics including climate change mitigation and adaptation and military base issues. She co-chaired the Urban/Communities Workgroup of the Interagency Climate Change Adaptation Task Force from 2010-2011 and contributed to a technical input document for a chapter of the 2014 National Climate Assessment. She earned her MA at Duke University and her undergraduate degree at Bryn Mar College. Fun fact: she went bungee-jumping at the place where modern bungee-jumping was born.

Pilar Thomas

Deputy Director, Office of Indian Energy
Policy and Programs
U.S. Department of Energy

Pilar Thomas assists the Department of Energy in developing national energy policy and programs related to Indian energy development. She is also responsible for developing and implementing policy efforts within the Department and federal government to achieve the Office's Indian Energy policy objectives. Prior to joining the Department, she served as the Deputy Solicitor for Indian Affairs in the U.S. Department of the Interior. Prior to her federal appointments, she was Of Counsel at Lewis and Roca LLP, in the firm's Tribal Affairs and Tribal Gaming practice groups. She formerly served as Chief of Staff to Chairwoman Frias of the Pascua Yaqui Tribe. She also served as the Tribe's interim attorney general and was responsible for providing legal advice and representation to the Chairwoman, the Tribal Council, and the Tribe's divisions, departments and enterprises. In 2002, she was appointed to the position of Trial Attorney in the U.S. Department of Justice, Environment and Natural Resources Division, Indian Resources Section. Her practice included Indian treaty rights, water rights and regulatory litigation. She received her BA in Economics from Stanford University, and her JD (magna cum laude) from the University of New Mexico School of Law.

Dr. Vivian Thomson

Associate Professor, Department of
Environmental Sciences and
Department of Politics
University of Virginia

Vivian Thomson is an environmental policy expert with thirty years of practical and academic experience at the local, state, national, and international levels. She directs the interdisciplinary BA program Environmental Thought and Practice and the Panama Initiative. Her most recent book is *Sophisticated Interdependence in Climate Policy: Federalism in the United States, Brazil, and Germany*. Her first book was *Garbage In, Garbage Out: Solving the Problems with Long-Distance Trash Transport*. From 2002 to 2010 she was vice chair and member of the Virginia State Air Pollution Control Board, the state's air pollution regulatory body, as an appointee of Governors Mark Warner and Tim Kaine. She has been senior policy analyst and manager at the U.S. Environmental Protection Agency. She was Distinguished Fulbright Chair at the University of Southern Denmark, Odense in 2001-02. In her environmental policy presentations she likes to lead sing-alongs, sometimes in Brazilian Portuguese or Spanish.

Dr. David Titley

Rear Admiral USN (ret.); Professor of
Practice in Meteorology; Director,
Center for Solutions to Weather and
Climate Risk Penn State Department of
Meteorology

David Titley is a nationally known expert in the field of climate, the Arctic, and National Security. He is currently Professor of Practice in the Department of Meteorology at the Pennsylvania State University, and founding Director of Penn State's Center for Solutions to Weather and Climate Risk. He served as a naval officer for thirty-two years and rose to the rank of Rear Admiral. His career included duties as Commander, Naval Meteorology and Oceanography Command, Oceanographer and Navigator of the Navy, and Deputy Assistant Chief of Naval Operations for Information Dominance. While serving in the Pentagon, he initiated and led the U.S. Navy's Task Force on Climate Change. After retiring from the Navy, he served as the Deputy Undersecretary of Commerce for Operations, the Chief Operating Officer position at the National Oceanic and Atmospheric Administration. He is a member of the National Academies of Science committee on Geoengineering and the Center for Naval Analysis' Military Advisory Board and co-chairs the National Research Council's "A Decadal Survey of Ocean Sciences" committee.

Daniel Wallach

Executive Director and Founder
Greensburg GreenTown

Daniel Wallach is Executive Director and Founder of Greensburg GreenTown, a not for profit organization that conceptualized and helped lead the sustainable rebuilding of Greensburg, Kansas following the tornado that wiped out the town in 2007. Today, the tiny two-square-mile community in the middle of rural Kansas is an internationally recognized model of a sustainably built community. In September of 2011 Daniel and others opened the first affiliate GreenTown organization in Joplin, Missouri to help integrate sustainability into the rebuild there after a major storm wiped out a third of the town of 50,000. Wallach is a social entrepreneur and innovator whose personal mission is to make capitalism, environmental health and vitality interdependent. He is a pioneer in sustainable disaster recovery and has been a vocal proponent of using disasters to catalyze positive, cutting edge, and lasting changes for communities. Wallach's education is varied but his most impactful experience has been "Adversity University" when he was ill for over a decade and studied religion and spirituality, environmental sciences and the healing arts. Wallach was the co-founder of the Colorado Association for Nonprofit Organizations (1987) and the National Council for Nonprofit Associations (1988) and in his late twenties was a leader in the organizing of the nonprofit sector in the U.S.

Dr. Jalonne White-Newsome

Environmental Justice Federal Policy
Analyst
WE ACT for Environmental Justice

Jalonne White-Newsome was the inaugural Kendall Science Fellow with the Union of Concerned Scientists, engaging in independent research on climate change adaptation and public health before joining WE ACT. While matriculating through the Environmental Health Sciences Department at the University of Michigan School of Public Health, her dissertation research focused on understanding the public health impacts of extreme heat events, specifically related to indoor heat exposure and how the urban-dwelling elderly adapt to hot weather. She spent a lot of her time translating her research into action through community outreach and engaging local policy makers and leaders on related issues. Before academia, she spent over ten years working in various manufacturing facilities, predominantly as an environmental manager, which also entailed assuming the role of emergency coordinator and voluntarily, liaising with the surrounding communities. She has held leadership positions in many organizations, including the National Society of Black Engineers, Air & Waste Management Association, Minerva Education and Development Foundation. She is also an adjunct professor at Kettering University and a Professorial Lecturer at The George Washington University. A native Detroit, she holds a BA in chemical engineering from Northwestern University and an MA in Environmental Engineering from Southern Methodist University.

Thank you for taking part in this summit! In keeping with the summit's focus on opportunities for creative action, we would like your thoughts and suggestions for climate change resilience-related governance reforms.

Please complete this survey by the end of lunch hour on June 6 and place it in the **marked box at the back of the auditorium**. Feel free to write on the back as well.

What **pressing problem** regarding resilience-related governance policy, politics, and/or practice must be addressed?

What resilience-related governance problems **were not addressed** in this summit?

What **specific solutions, initiatives, or experiments** regarding resilience-related governance policy, politics, and/or practice can you suggest? (Your response does not have to be a solution to the above-mentioned problems.)

What **barriers** are preventing solutions to resilience-related governance challenges?

Is anything else **lingering** in your mind? Is there one thing you'd like to **reflect** on further? (A question, suggestion, concern...)

If you wish to remain **anonymous**, that is fine. Otherwise, **please include any information** you wish to share:
What is your name? What organization are you with?

With which kinds of organizations or in what areas do you work? Circle as many as appropriate.

- Communities or neighborhoods
- Business and/or industry
- Educational or communication organizations
- Civil society organizations
- Philanthropic organizations
- Professional or other associations
- Local government organizations
- State government organizations
- Tribal organizations
- Tribal governments
- Federal government organizations
- International organizations
- Organizations based outside the U.S.
- Other