Sustainable Cities Network
American Meteorological Society Panel on Extreme Weather
January 8, 2015
The Sheraton Downtown, Valley of the Sun Room C

Panelist Biographies

Larry Brazil (larry.brazil@riverside.com)

As President and Chief Executive Officer of Riverside Technology, Inc (Riverside), Dr. Brazil provides strategic direction and oversight to corporate operations, specializing in the development and evaluation of domestic and international projects relating to the monitoring, use and protection of natural resources. In his technical role as a water resources engineer, Dr. Brazil is involved in decision support system development, deterministic and stochastic modeling, information system design, and data analysis. During his 11 years at the Hydrologic Research Laboratory of the National Weather Service, Dr. Brazil developed and implemented components of real-time operational hydrometeorological monitoring and forecasting systems. Dr. Brazil's experience in water management has included technical assistance in forecasting water availability in more than 30 countries for operational purposes such as irrigation management, hydropower production, and water supply using a variety of software systems. Applications of his work also have included use of hydrometeorological forecast information for flood mapping, and emergency response and preparedness. Dr. Brazil has a B.S. degree from the Massachusetts Institute of Technology and M.S. and Ph.D. degrees from Colorado State University, all in Civil Engineering/Water Resources. He has published over 40 papers in his areas of expertise.

Lawrence Buja (southern@ucar.edu), 303-497-1330

Dr. Lawrence Buja is the Director of NCAR's Climate Science and Applications Program at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, which carries out interdisciplinary research on social, economic, and political activities related to climate at local, regional and global scales. CSAP addresses impacts, adaptation and vulnerability to climate change by generating scenarios of projected climate change, developing tools and methods for analyzing current and future vulnerability, and conducting integrated analyses of climate change impacts and adaptation. Lawrence also works closely with the World Bank, the InterAmerican Development Bank and other international agencies applying NCAR's climate and regional model expertise to help inform sustainable development investment strategies

throughout the developing world. Previously Dr Buja served as the scientific project manager for NCAR's Climate Change and Prediction group and on NCAR's core climate modeling development and application team. This group carried out the climate simulations of the earth's past, present and future climate with NCAR's Community Climate System Model (CCSM) that made up the joint US NSF/DOE submission to the Intergovernmental Panel on Climate Change (IPCC). Together with the CCSM runs carried out on the Japanese Earth Simulator, these CCSM runs were the largest data submission to the IPCC AR4 effort by any modeling center in the world. In addition to carrying out IPCC climate simulations, Lawrence is a contributing author to both the 2001 IPCC Third Assessment Report and the Nobel Prize winning 2007 IPCC Fourth Assessment Report.

Gregg Garfin (gmgarfin@email.arizona.edu), (520) 626-4372

Deputy Director for Science Translation & Outreach, Institute of the Environment in Arizona. Dr. Garfin works to bridge the science-society interface in order to accelerate the transfer of University of Arizona environmental and climate science findings and techniques to resource managers, planners, policy makers, and other decision-makers in the region. This involves fostering dialogues between scientists and stakeholders, garnering stakeholder input to research agendas and activities, developing sustained interactions between University of Arizona environmental scientists, environmental professionals, decision-makers and the public, disseminating research results and products, and conducting workshops on topics of interest to Southwest decision-makers. Dr. Garfin's research interests include climate change adaptation, climate variability and change, drought, decision support, and the effective delivery of science to decision makers. He is co-Convening Lead Author of Chapter 20: Southwest, in the Third National Climate Assessment. He is Executive Editor of Assessment of Climate Change in the Southwest United States, a 120-author comprehensive examination of climate, impacts (e.g., to ecosystems, coasts, agriculture, cities), vulnerabilities, and choices for managing change. He is a co-investigator with the Climate Assessment for the Southwest (CLIMAS) project, a NOAA-funded integrated assessment designed to identify and evaluate climate impacts on human and natural systems in the Southwest. He is also an associate of the UA's Center for Climate Adaptation Science and Solutions.

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Matei Georgescu (Matei.Georgescu@asu.edu), 480-727-5986

Dr. Georgescu's senior sustainability scientist with the Julie Ann Wrigley Global Institute of Sustainability, Assistant Professor, School of Geographical Sciences and Urban Planning, and Adjunct Professor, School of Mathematical and Statistical Sciences in the school of School of Geographical Sciences and Urban Planning, Arizona State University. His research aims to improve understanding and characterization of distinct phenomena related to urbanization-induced landscape change. He focuses on identifying hydro-climatic and air quality impacts resulting from large-scale urbanization, as well as potential adaptation and mitigation strategies. In addition, Dr. Georgescu addresses environmental consequences (e.g., on climate and hydrology) of renewable energy expansion by integrating across physical, agricultural, and socioeconomic elements. The range of tools used to investigate these topics include climate models, remote sensing data and associated applications, and in situ weather/climate observations. Prior to joining ASU, Dr. Georgescu was a Post-Doctoral Scholar in the Center on Food Security and the Environment (Department of Environmental Earth System Science) at Stanford University from 2008-2010. His research interests include modeling; climate change; land-atmosphere interactions; environmental impacts of bioenergy expansion; urbanization effects on weather and climate; modeling and simulation; scientific computing; land use change.

Mary Hayden (mhayden@ucar.edu), 303-497-8116

Dr. Hayden is a scientist with NCAR and her specialties include the role of environmental factors, including climate variability, on the spread of disease. Dr. Hayden, a medical anthropologist, focuses on how human and environmental factors, including changes in climate, can influence the spread of disease. Much of her research has looked at the potential for dengue fever, a potentially deadly illness spread by a species of tropical mosquito, to emerge along the U.S.-Mexico border. She is also taking part in a project to incorporate weather forecasts into efforts in Africa to control outbreaks of meningitis, which spreads during the dry season. Hayden's interests in weather and society have led her as well to study how people respond to forecasts of threats such as flash floods and hurricanes.

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Amir Jina (amirjina@gmail.com)

Dr. Jina is a Postdoctoral Scholar at the Economics Department of University of Chicago and a Senior Fellow at the Energy Policy Institute of Chicago (EPIC). An environmental and development economist, his research focuses on the role of the environment and environmental change in the shaping how societies develop. He uses applied economic techniques combined with methods from climate science and remote sensing to understand the impacts of climate in both rich and poor countries, and has conducted fieldwork related to climate change adaptation with communities in India, Bangladesh, Kenya, and Uganda. Prior to University of Chicago, Amir was a visiting scholar at the Goldman School of Public Policy in University of California, Berkeley where he worked on the economic analysis of the Risky Business initiative, an independent assessment of the economic risks posed by a changing climate in the U.S commissioned by co-chairs Michael R. Bloomberg, Henry Paulson, and Tom Steyer. Amir received his Ph.D. in Sustainable Development and M.A. in Climate and Society both from Columbia University, B.A.s in Mathematics and Theoretical Physics from Trinity College, Dublin, and previously worked with the Red Cross/Red Crescent in South Asia.

Gerald "Jerry" Meehl (meehl@ucar.edu), 303-497-1331

Dr. Meehl is a Senior Scientist at the National Center for Atmospheric Research (NCAR) and his specialties include climate change and major impacts of global warming, particularly heat waves, droughts, storms, and other weather extremes; regional climate change; El Niño and other influences of the tropics on global climate. Dr. Meehl uses computer models and atmospheric observations to examine both present and future climate change. He is an expert on the likely impacts of global warming on extreme weather events, such as droughts, floods, and heat waves. He also studies naturally-occurring climate processes that produce year-to-year and decade-to-decade variability and examines the resulting interactions with the warming due to increasing greenhouse gases. The impact of the solar cycle on climate patterns on Earth is another research interest. Dr. Meehl has served as convening lead author and lead author for scientific assessments by the Intergovernmental Panel on Climate Change (IPCC), which shared the 2007 Nobel Peace Prize. Dr. Meehl is a senior scientist in NCAR's Climate and Global Dynamics Division.

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Tim Owen (tim.owen@noaa.gov), 828-271-4358

Tim Owen is the Executive Officer at the National Oceanic and Atmospheric Administration's National Climatic Data Center (NOAA/NCDC), where he oversees cross-Center coordination and communications. Over his twenty-year career at NCDC, Mr. Owen has worked on a variety of projects, including climate data validation, urban heat-island research, climate normals generation, map-based data applications, assessment of socioeconomic information, and collaboration in setting up drought.gov - the web portal of the National Integrated Drought Information System. A graduate of UNC Asheville in Atmospheric Sciences (B.S., 1992), he also holds degrees from Penn State (M.S., Meteorology, 1995) and UNC Chapel Hill (M.R.P., City and Regional Planning, 2000), where he respectively researched remotely-sensed urban morphology and viewshed-based environmental planning and hazards mitigation. In recent years, he has served as NCDC's National Partnership Liaison and Deputy of the Climate Services and Monitoring Division. Mr. Owen is the Chair of the AMS Committee on Applied Climatology and is on the Advisory Board for the USA-National Phenology Network. He has published over a dozen peer-reviewed articles in the field of applied climatology, and has provided input to both the 2007 IPCC and 2009 Climate Change Impacts reports.

David Sailor (sailor@pdx.edu)

David Sailor is the Director of the Green Building Research Laboratory (GBRL) at Portland State University and Professor of the Dept. of Mechanical Engineering Portland State University. Dr. Sailor received his Ph.D. in 1993 from the University of California at Berkeley where he conducted research with the Energy and Environment Division at Lawrence Berkeley National Laboratory. His early research focused on mesoscale atmospheric modeling of urban areas with an emphasis on heat island mitigation strategies. After 10 years on the Engineering faculty at Tulane University he moved to Portland State University where he became founding director of the Green Building Research Laboratory (GBRL). The GBRL works closely with industry to test and develop new technologies and strategies for high performance buildings, with a focus on energy efficiency and urban climate interactions. Dr. Sailor's research team receives funding support from numerous organizations and agencies, including the National Science Foundation, the US Department of Energy, US Green Building Council, OR BEST, and others. His research

encompasses scales ranging from energy analysis of individual buildings to measurements and modeling of the urban climate system. Dr. Sailor serves the research community as a reviewer for agencies such as NSF, DoE, and CEC, and well as journals such as Energy and Buildings, Building and Environment, and the Journal of Applied Meteorology and Climate. He was a contributing author to the Nobel Peace prize winning IPCC 4th Assessment Report (WGII, Ch. 14) and has authored more than 50 peer-reviewed articles. He has served as chair of the AMS Board on the Urban Environment (2008-2011) and is currently (2011-2015) serving as an elected member of the Board of the International Association for Urban Climate.