Integrating the Human Sciences to Scale Societal Responses to Environmental Change: A Workshop

Panelist Biographies | 4 May 10:00am–4:00pm ET | 5 May 10:00am–4:00pm ET

LISA ARKIN is the Executive Director of the Beyond Toxics, Oregon's first statewide environmental justice nonprofit, where she provides innovative policy leadership. Following her career in higher education at both Stanford University and the University of Oregon, Arkin became dedicated to placing social justice at the forefront of all environmental protection policies. As an example, Arkin has steered innovative community-based research, stewarded the adoption of the 2021 Oregon Environmental Justice Framework by the State Legislature, introduced some of the nation's most protective pesticide policies at the state and local level, and advocated for climate justice criteria in land and forestry management regulations.

SHAHZEEN ATTARI'S research focuses on people's judgments and decisions about climate change and resource use. Some of her research has investigated how people think about energy and water use, how people conceptualize water systems, and how the carbon footprint of climate communicators affects their audience's policy support. Among other projects, she is currently studying how to use stories to fuse facts and feelings to motivate action on climate change. She is an Associate Professor at the O'Neill School of Public and Environmental Affairs (SPEA) at Indiana University Bloomington. You can find out more about her and her research here: www.szattari.com.

DEBORAH BALK is Professor of Public Affairs in the Marxe School of Public and International Affairs at Baruch College and at the Graduate Center at the City University of New York and Director of the CUNY Institute of Demographic Research (CIDR). She was a 2016 Andrew Carnegie Fellow. She is an expert on population-climate interactions. Using a spatial demographic lens (combining population and remote-sensing data), she studies a wide range of demographic and health outcomes, poverty and vulnerability. She is a pioneer in the spatial modelling of urbanization, and was the lead developer of the Global Rural Urban Mapping Project (GRUMP) and co-developer of the first global Low Elevation Coastal Zone (LECZ) data sets, which allowed for the estimation of urban population at risk of climate-change hazards. She has published widely on the global, national, and local scales. She currently serves as Co-Chair on the New York City Panel on Climate Change's 4th Assessment, a member of Society and Economy Working Group of the New York State Climate Impacts Assessment, a member of the US Census Bureau's Scientific Advisory Committee, and a member of the National Academy of Sciences Committee on Population. She received her PhD in Demography from UC Berkeley and a Master's in Public Policy from the University of Michigan.

GARY BELKIN is Director, Billion Minds Project at Columbia University, and Chair, COP[2] (cop2.org). A psychiatrist who approaches mental health as a building block of social policy and progress, he recently founded Billion Minds as a "think-action tank." The intention of Billion Minds is to link mental health to problems of great scale, specifically to the climate crisis, and to safeguarding sustainable societies through a humane social climate. COP[2] was one outcome of that work—a global network aligned about converging growing activity and learning on climate-psychological resilience connections and putting them to global scale. An initial effort from that is to produce an implementation Roadmap for the UNFCCC Race to Resilience to incorporate the goal of building capacity to promote those supports to 4 billion people by 2030. Gary is also the former Executive Deputy Commissioner in the New York City Department of Health and Mental Hygiene where he led the Division of Mental Hygiene and its development and

implementation of the innovative NYC-wide public mental health initiative, *ThriveNYC*. Before joining city government, he was Medical Director for Behavioral Health across the Health and Hospitals Corporation of the City of New York, and served as Founding Editor in Chief of the open access journal *Global Mental Health*. As Director of the NYU Program in Global Mental Health, Gary partnered with other groups globally to test and scale community-led models of mental health promotion and access in less resourced countries that are now widely used. A graduate of Warren Alpert Medical School of Brown University, where he also earned his undergraduate degree, Gary earned his MPH at Harvard School of Public Health and a doctorate in the Department of the History of Science at Harvard University.

LYNNY BROWN is a Partner at Healthy Environments at Willamette Partnership. Growing up in densely populated Bangkok, Lynny found serenity and healing in the small green space at her apartment complex. This experience of access to nature drives her work: to improve people's well-being by connecting them to healthy environments. Lynny provides collaborative leadership, policy expertise, and coordination support for projects at the intersection of health and the environment. She works to center community voices, while providing the structure needed to keep diverse groups moving forward together. Lynny draws from her master's degree in public health and community organizing experience to initiatives such as the Oregon Water Futures Collaborative, Oregon Health & Outdoors Initiative, and Oregon Rural Community Schoolyards. She is an alumna of the Asian Pacific American Network of Oregon (APANO)'s Climate, Health, and Housing Institute and joins a strong cohort of community leaders organizing for systemic change to address the root causes of environmental justice issues.

Direlle Calica is a citizen of the Confederated Tribes of Warm Springs, and is of Warm Springs, Wasco, Yakama, Molalla and Snoqualamie tribal descent. Ms. Calica has over 25-years of experience as a field, legislative, policy, planning, and regulatory advisor with the U.S. Attorney's Office-District of Oregon, U.S. Army Corps of Engineers, and various Indian Tribes and Tribal Organizations. Ms. Calica has extensive professional experience in intergovernmental affairs, hydrosystem planning, resource conservation, and tribal energy policy. She has also served as a Mark O. Hatfield Congressional Fellow in the U.S. Senate. Direlle currently serves as the Director of Portland State University's Institute for Tribal Government and as ATNI's Energy & Water Program. She is the co-founder and coordinator of the Changing Currents: Tribal Water Summit program for tribal leaders and youth. She is the Managing Partner of Kanim Associates, LLC a Native American owned professional consulting firm. She serves on the Oregon Native American Chamber of Commerce, Board of Directors. Direlle lives in Portland, Oregon with her husband and two dachshunds.

SARA CONSTANTINO is an assistant professor in the Psychology Department and the School of Public Policy and Urban Affairs. She works broadly on social and environmental policy and decision-making. Her research focuses on understanding the interplay between individual, institutional and ecological factors on perceptions, policy preferences and resilience to extreme events or shocks. In particular, recent studies look at the role of polarization, social norms and governance in stimulating or stifling support for climate action. She also works on the impacts and politics of basic income programs. Prior to starting at Northeastern, she was an associate research scholar at Princeton's School of Public and International Affairs and a lecturer at the High Meadows Environmental Institute. Before this, she was senior research fellow in guaranteed income with the Jain Family Institute and a founding editor at Nature Human Behavior. She received her bachelor's degree in economics from McGill University, a master's degree in economics from University College London, and a Ph.D. in cognitive sciences, with a focus on learning and decision-making in dynamic environments, from New York University.

SHANNON DOSEMAGEN (she/her) directs the Open Environmental Data Project (OEDP). OEDP focuses on building spaces to grow the global conversation on environmental and climate data access and use. Previously, she co-founded and served for a decade as Executive Director of Public Lab (2010-20), a community that uses open approaches to support people in asking and answering environmental questions. Dosemagen is a co-founder of the Gathering for Open Science Hardware and a collaborator in the Open Climate community. For her work, she has been awarded Fellowships with the Shuttleworth and Claneil Foundations and at the Harvard University Berkman Klein Center for Internet and Society. She currently serves on the boards of Code for Science and Society, the Open Science Hardware Foundation, and the (U.S.) National Parks Conservation Association, and previously chaired the National Advisory Council on Environmental Policy and Technology (NACEPT) and the Citizen Science Association.

KRISTIE L. EBI, Ph.D., MPH is a Professor in the Center for Health and the Global Environment in the School of Public Health, University of Washington. She has been conducting research on the health risks of climate variability and change for more than 25 years. Her research focuses on estimating the current and future health risks of climate change; designing adaptation programs to reduce those risks; and quantifying the health co-benefits of mitigation policies. She has provided technical support to multiple countries in Africa, Europe, Asia, and the Pacific in managing climate change-related risks. Her scientific training includes an M.S. in toxicology and a Ph.D. and a Master of Public Health in epidemiology, and two years of postgraduate research at the London School of Hygiene and Tropical Medicine. She edited fours books on aspects of climate change and has more than 250 peer-reviewed publications.

CHRIS FREY is the Assistant Administrator for Research and Development effective May 2022. He also serves as the Agency Science Advisor. Before his confirmation, he served ORD as the Deputy Assistant Administrator for Science Policy. Prior to joining EPA, Dr. Frey was the Glenn E. and Phyllis J. Futrell Distinguished University Professor at North Carolina State University, where he served on the faculty since 1994. His research includes measurement and modeling of human exposure to air pollution, measurement and modeling of vehicle emissions, and applications of probabilistic and sensitivity analysis methods to emissions estimation, risk assessment, and technology assessment. Dr. Frey was an AAAS/EPA Environmental Science and Engineering Fellow in 1992. He served as exposure modeling advisor in ORD's National Exposure Research Laboratory from 2006 to 2007. He was a member of the EPA FIFRA Scientific Advisory Panel (2004 to 2006), a member of the EPA Clean Air Scientific Advisory Committee (CASAC) (2008 to 2012), chair of CASAC (2012 to 2015), and a member of the EPA Science Advisory Board (2012 to 2018). He was a member of the CASAC Particulate Matter Review Panel that was dismissed in 2018: under his leadership, the panel reconvened as the Independent Particulate Matter Review Panel. He was President of the Society for Risk Analysis in 2006. Dr. Frey has a B.S. in mechanical engineering from the University of Virginia, an M.E. in mechanical engineering from Carnegie Mellon University, and a Ph.D. in engineering and public policy from Carnegie Mellon.

STEVEN C. HAYES is a Nevada Foundation Professor of Psychology at the University of Nevada, Reno. An author of 48 books and 700 scientific articles, he is the developer of Relational Frame Theory, an account of human higher cognition, and has guided its extension to Acceptance and Commitment Therapy or Training ("ACT" in either case), a popular evidence-based form of psychological intervention that fosters greater psychological flexibility, and has been shown in over 1,000 randomized trials to improve mental and behavioral health and social wellness in a wide range of areas. Of relevance to this workshop, ACT self help is distributed worldwide by the World Health Organization to address stress from any source including war and natural disasters (bit.ly/WHO_ACT), and psychological flexibility principles have been combined with Elinor Ostrom's Nobel Prize winning core design principles in a program

call Prosocial, that is used widely to foster group cooperation including in areas of climate change. His first book, written 43 years ago but still in print because of the paucity of similar books, was "Environmental Problems / Behavioral Solutions". Research.com ranks him as the 63rd highest impact psychologist worldwide.

JESSE M. KEENAN is the Favrot II Associate Professor of Sustainable Real Estate at the School of Architecture. As a globally recognized thought leader, Keenan's research focuses on the intersection of climate change adaptation and the built environment, including aspects of design, engineering, regulation, planning and financing. Keenan formerly served as the Director and Area Head for Real Estate and Built Environment on the faculty of the Harvard Graduate School of Design and as the Research Director of the Center for Urban Real Estate on the faculty of Columbia University. Keenan represents the United States as a member of the Intergovernmental Panel on Climate Change (IPCC) and currently serves as an appointed author for the U.S. National Climate Assessment. Keenan has held various federal government appointments where he has supported climate change research and policy at the White House, the Federal Reserve, the Commodity Futures Trading Commission, and the Departments of Commerce, Homeland Security and Defense. Among other popular recognitions, Keenan coined the concept of "climate gentrification," which has stimulated an active public discourse on the distributional equity of who pays and who benefits from societal adaptations to climate change. Keenan's work on domestic climate migration has been widely observed to have influenced consumer behaviors, particularly in Duluth, Minnesota. Keenan holds degrees in the law and science of the built environment, including a Ph.D. from the Delft University of Technology.

MARK LUBELL is Professor in the Department of Environmental Science and Policy at the University of California, Davis and the Director of its Center for Environmental Policy and Behavior. Lubell studies cooperation problems and decision making in environmental, agricultural, and public policy. Through application of social science theory and research methods, Lubell uses his work to provide practical results and recommendations to real policy

and decision makers. His research topics include water management, sustainable agriculture, adaptive decision-making, climate change policy, local government policy, transportation behavior, plant disease management, invasive species, and policy/social network analysis. Following a natural science model of scientific inquiry, his long-term research agenda is to discover common principles of cooperation that can be observed and tested in all three modes of research: theory, experiment, and field.

EZRA MARKOWITZ, Ph.D. is Associate Professor of Environmental Decision-Making in the Department of Environmental Conservation at the University of Massachusetts Amherst. His research, teaching and outreach focus on the intersection of decision-making, persuasive communication, public engagement with science, and environmental sustainability. He is particularly interested in the practical application of behavioral science to improve individuals' and communities' environmental decision-making; he also has deep expertise in the field of climate change communication and public engagement. He is the author of over five dozen peer-reviewed research papers, book chapters, and report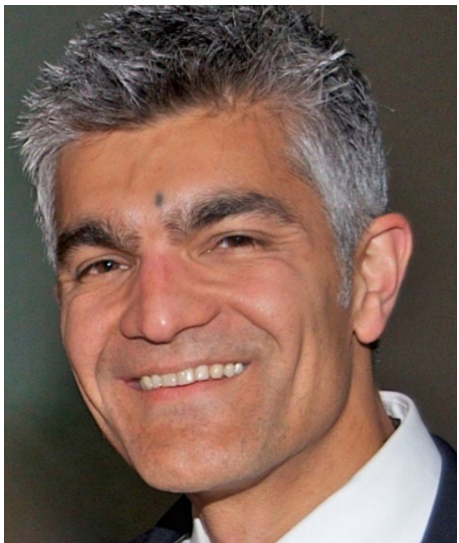s, including the 2015 Connecting on Climate guide to climate change communication. At UMass Amherst, Markowitz teaches courses on Environmental Decision-Making and Public Engagement and Communication for Scientists. He holds a Ph.D. in Environmental Sciences, Studies & Policy and an M.S. in Psychology from the University of Oregon, as well as a B.A. in Psychology from Vassar College. Markowitz previously held appointments as an Earth Institute Fellow at Columbia University and as a Postdoctoral Research Associate at Princeton University; he is a Fellow with the FrameWorks Institute and a former President of the Society for Environmental, Population and Conservation Psychology.

JESSICA MURPHY completed her Bachelor of Science degree in Industrial Technology at Alcorn State University. She completed a Master of Science in Technology (M.S.T) and a Doctorate of Philosophy in Technology from Mississippi State University. She has worked in the educational arena for almost 20 years. Her experiences started as a part-time lecturer of Industrial Technology while completing my Ph.D. At Mississippi State University. After she completed her doctorate degree, Jessica worked with the Mississippi Department of Education in Management Information Systems. From 2006 to the present, she taught in the Department of Industrial Systems and Technology at Jackson State University. She has been very blessed to successfully matriculate through the ranks from Assistant Professor to Full Professor at this research-intensive institution. In 2020, she became the Principal Investigator and Project Director of the Community Resilience Project at Jackson State (through support from the U. S. Department of Homeland Security-Coastal Resilience Center). Their vision is to equip Mississippi's underserved communities with up-to-date skills for better preparedness for natural disasters to minimize loss of life and property; thus, building resilient communities.

RAJUL (RAJ) PANDYA is the VP of Community Science at AGU. Raj invites everyone to be part of guiding and doing science, especially people from historically marginalized communities, so that the sciences can contribute to a world where all people and nature can thrive, now and in the future. Raj chaired the National Academies committee on "Designing Citizen Science to Support Science Learning," serves on the boards for Public Lab and the Anthropocene Alliance and is a member of the Independent Advisory Committee on Applied Climate Assessment. He helped launch the Resilience Dialogues – a public-private partnership that uses facilitated online dialogues to advance community resilience. He was a founding board member of the Citizen Science Association and served as Education and Human Resource Commissioner for the American Meteorological Society. Before joining AGU, Raj led education, engagement, and diversity programs connected to the National Center for Atmospheric Research, led an international research and development project that used weather data to better manage meningitis in Africa, and held a faculty position at West Chester State

University. Raj got his PhD from University of Washington exploring how large thunderstorms grow and persist. Raj lives in Colorado with his wife Amy (a physician his parents call 'the real doctor'), their daughter Maya, and their dog Nala.

DAVID N. PELLOW is the Dehlsen Chair and Distinguished Professor of Environmental Studies and Director of the Global Environmental Justice Project at the University of California, Santa Barbara. His teaching, research, and activism focus on environmental justice in the U.S. and globally. His books include: What is Critical Environmental Justice?; The Slums of Aspen: Immigrants vs. the Environment in America's Eden (with Lisa Sun-Hee Park); The Silicon Valley of Dreams: Environmental Injustice, Immigrant Workers, and the High-Tech Global Economy (with Lisa Sun-Hee Park); and Garbage Wars: The Struggle for Environmental Justice in Chicago. He has served on the Boards of Directors of Greenpeace USA and International Rivers.

ABBY REYES directs Community Resilience Projects in the Office of Sustainability at the University of California, Irvine. The projects foster community-driven academic partnerships that honor and build community and climate resilience. At UC Irvine School of Law, Reyes also teaches a seminar on Law and Social Movements: Race, Place, and Climate Change. Current and recent projects include directing CAPECA, a 15-month participatory action research training for 11 community-academic partnerships in California to advance equity-focused climate solutions; co-convening the Just Transition Lawyering Institute, a 14-week training for practicing attorneys who support Black and Indigenous communities and low-income communities of color in advancing just transition solutions; and walking alongside Cooperación Santa Ana together with a wider collaborative of community-based organizations that are building local solidarity economy infrastructure in southern California. Reyes also participates in Colombia's post-civil war Truth and Recognition processes stemming from her ongoing accompaniment of the U'wa indigenous peoples in their decades' long assertion of dignity against big oil. From 2013-2016, Abby directed the UCI Sustainability Initiative and was a co-Principal Investigator of the FloodRISE project, leading the Research

Integration and Impact Team. She co-chaired the Faculty Engagement and Education Working Group of the UC Global Climate Leadership Council and co-founded UCI's Sustainability Resource Center. She has provided facilitation and design services for the UC-CSU Knowledge Action Network on Transformative Climate and Sustainability Education; UCI Salton Sea Initiative; UCI OCEANS; UCI Research Justice Learning Community; Nexus 2014: Environmental Health and Justice; the Borrego Stewardship Council; and trains UC faculty, staff, community collaborators, and student activists in community leadership for climate resilience statewide. In response to the pandemic, Reyes co-convened the Orange County Health Equity COVID-19 Community Academic Partnership, co-producing the first health equity-focused contact tracing workshop series to build community-driven COVID-19 response within the region's hardest hit communities. Earlier in her career, the Scholar and the Feminist Conference of Barnard College named Reyes a "Model of Resistance" for her work directing the U'wa Defense Project, a legal and community organizing effort, and her work with rural fishing and farming communities through the Environmental Legal Assistance Center in the southern Philippines as a Henry Luce Scholar. Reyes completed her undergraduate degree at Stanford University and JD at UC Berkeley Law. She clerked for the Honorable Richard A. Paez on the Ninth Circuit Court of Appeals and recently finished her term co-chairing the board of directors of EarthRights International. She is a partner in the National Association of Climate Resilience Planners and a participant in Movement Strategy Center's transitions labs (2016-20) and collective acceleration learning communities. Reyes received UC Irvine's 2015 Excellence in Leadership Award and a 2016 California Higher Education Sustainability Best Practices Award. She has a TEDx talk on How to Come Home.

DR. ALAÍ REYES-SANTOS is a founding member and the Associate Director of the Mellon-funded PNW Just Futures Institute for Racial and Climate Justice, and a Professor of Practice at University of Oregon's School of Law. Previously she was an Associate Professor in the Department of Indigenous, Race, and Ethnic Studies. Her projects co-create knowledge with community and university partners and disseminate environmental research in accessible formats through public scholarship, media interventions, op eds, and digital platforms. She has recently co-created the Oregon Water Futures Collaborative and the Healers Project, two multidisciplinary initiatives through which the human sciences support storytelling, community empowerment and leadership development, public education, and scientific research that directly impact how historically underserved communities address climate and environmental change. In 2021, through OWF's storytelling project, community voices usually absent from conversations about water infrastructure updates were at the center of state planning

with long term impacts for public health. Currently, the Mellon Foundation funded the Healers Project to elevate Indigenous and Black approaches to environmental challenges in the Pacific Northwest. In 2022 Dr. Reyes-Santos received the Excellence in Teaching Sustainability Award for her deployment of multidisciplinary student teams to address environmental problems with community partners. PhD in Literature, 2007; MA in Spanish, 2003; BA in Humanities, 2001.

SHINA ROBINSON is a bridge builder between passing transformative climate, energy, and housing policies, and implementing state policy through local models of Just Transition and Energy Democracy, rooted in local design and decision making of APEN's immigrant and refugee leaders. She leads policy and political education trainings, community engagement processes, joint advocacy, and coordination with local and state coalitions to advance these projects and collective vision. Her current focus is on implementation of policies, accessing investments, and engaging APEN communities as decision makers to build community-based climate resilience hubs in Oakland and Richmond. Shina has served in many roles at APEN since 2012, but her deep commitment to environmental justice at the intersection of human rights, health, and equity started from a young age between visiting family in the Philippines and growing up in the shadow of a Los Angeles area oil refinery. She took on human rights and climate disaster relief campaigns while pursuing an undergraduate degree in International Studies and Political Science at Cal State Long Beach.

ROBYN S. WILSON *(chair)* is the Professor of Risk Analysis and Decision Science in the School of Environment and Natural Resources at The Ohio State University. Her work focuses primarily on how decisions under risk and uncertainty are made at the individual level. She is also interested in the development of risk communication and decision support tools to inform decision making. Her current research focus is on adaptation to climate-exacerbated hazards (e.g., wildfire, water quality), and what motivates and constrains different land use and land management decisions on private and public lands. Dr. Wilson is the current past President of the Society for Risk Analysis and member of the National Academies of Science, Engineering and

Medicine (NASEM) Resilient America Roundtable and the US EPA Board of Scientific Counselors Social and Community Science Subcommittee. She is a former member of NASEM) Board on Environmental Change and Society and the EPA Chartered Science Advisory Board. Dr. Wilson received her B.A. in Environmental Studies with Honors from Denison University, and her M.S. and Ph.D. degrees in Environment and Natural Resources from The Ohio State University.

GABRIELLE WONG-PARODI is an Assistant Professor in the Department of Earth System Science and the Stanford Doerr School of Sustainability social sciences division and Center Fellow at the Stanford Woods Institute for the Environment at Stanford University. Her research focuses on applying behavioral decision research methods to address challenges associated with global environmental change. Dr. Wong-Parodi seeks to understand the psychosocial and contextual factors that influence people's responses to environmental change – especially extremes – over time, with a particular focus on those communities that have been historically marginalized or disproportionately impacted by climate change. She also uses behavioral decision science approaches to create and evaluate evidence-based strategies for informed decision making, with a particular focus on building resilience and promoting sustainability in the face of a changing climate. Dr. Wong-Parodi has a background in climate change adaptation and mitigation, energy technologies and resources, extreme weather events, and low-carbon technologies. She is on the advisory committee for the National Academies to the US Global Change Research Program and recently served as a committee member on the American Psychological Associations Climate Task Force. Dr. Wong-Parodi is an adjunct assistant professor in the Department of Engineering and Public Policy at Carnegie Mellon University. Dr. Wong-Parodi received her B.S. in Psychology at the University of California Berkeley, and her M.A. and Ph.D. in Risk Perceptions and Communication from the University of California, Berkeley.