

**Operationalizing Sustainable Development:
Localization of the Sustainable Development Goals**

**Virtual Side Event of the 8th Multi-stakeholder Forum on Science, Technology and
Innovation for the Sustainable Development Goals (STI Forum)**

Tuesday, May 2, 2023

11:45 am to 1:00 pm EDT

All times are US Eastern Daylight Time

AGENDA

Meeting Objectives: Highlight the findings and recommendations from the National Academies 2022 report on operationalizing sustainable development and discuss positive case studies to operationalize sustainable development at a local level.

- 11:45 am **Opening Remarks and Introductions**
Franklin Carrero-Martínez, National Academies of Sciences, Engineering, and Medicine
- 11:50 am **An Overview of the National Academies Report, *Operationalizing Sustainable Development for People and the Planet***
E. William Colglazier, American Association for the Advancement of Science (Co-Chair)
- 12:05 pm **Panel: Localization of the Sustainable Development Goals**
Moderator: Cherry Murray (NAS/NAE), University of Arizona (Co-Chair)
- Lynn von Koch-Liebert, California Strategic Growth Council
 - Dora Frietze-Armenta, Pacoima Beautiful
 - V. Kelly Turner, University of California, Los Angeles
 - Sylvia Croese, University of the Witwatersrand, Johannesburg
- 12:45 pm **Q&A and Discussion**
- 1:00 pm **Side Event Conclusion**

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Brief Description

The COVID-19 pandemic and overlapping global crises, including geopolitical conflict, economic crisis, and climate change have made the achievement of the 2030 Agenda and the Sustainable Development Goals (SDGs) more challenging. In November 2022, the U.S. National Academies of Sciences, Engineering, and Medicine released a report, *Operationalizing Sustainable Development to Benefit People and the Planet* that identifies key research priorities and possible actionable steps to operationalize sustainable development across eight interrelated themes (<https://doi.org/10.17226/26654>).

Common areas across the eight themes discussed in the report include the need for additional data and reporting, the need for multi-stakeholder and multi-sectoral collaboration, the importance of participatory processes in decision-making, and the need for targeted financing at multiple levels from the international to the community scale. One key takeaway from the case studies presented in the report is that local communities have an important role to play in achieving the SDGs. While the SDGs embrace global aspirations, they must be rooted in local buy-in and implementation. To localize the SDGs, there is a need to explore ways to make science systems more inclusive and equitable, to involve a wider range of voices, institutions, types of knowledge, and approaches to learning that are designed to capture local needs.

In addition to sharing the study findings, this virtual session will highlight a number of on-the-ground examples of localization; discuss the role of science, technology, and innovation for advancing sustainable development; and identify opportunities for engaging youth, civil society, and local governments in achieving the SDGs with a particular focus on Goals 6, 7, 9, 11, and 17 to contribute to the UN 2023 STI Forum discussion. Intended audiences will include policy makers, researchers, practitioners, civil society, educators, business and philanthropic leaders, and other stakeholders from governments, the private sector, and nongovernmental organizations in their efforts toward the localization of the SDGs.

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Biographies of Speakers and Moderators

Opening Remarks and Introductions

FRANKLIN CARRERO-MARTÍNEZ joined the National Academies of Sciences, Engineering, and Medicine in 2018 where he directs the Global Sustainability and Development and the Science and Technology for Sustainability program within the division of Policy and Global Affairs. Prior to this appointment, he was the Acting Deputy Science and Technology Adviser to the Secretary of State. Dr. Carrero-Martínez holds a B.S. in biology, with honors from the University of Puerto Rico (UPR), a Ph.D. in cell and developmental neurobiology, and a certificate in business administration from the University of Illinois at Urbana-Champaign. His multidisciplinary career includes several roles in academia and government: from researcher and educator, science administrator, to science policy and diplomacy. Previously, Dr. Carrero-Martínez held appointments as associate professor at the UPR, Mayagüez, Adjunct Professor at the UPR Medical Science Campus, and as visiting scholar at Duke University, Massachusetts Institute of Technology, and Japan's Institute of Genetics. Dr. Carrero-Martínez started his career in science diplomacy and policy as the American Association for the Advancement of Science's Roger Revelle Fellow in Global Stewardship. He served this prestigious fellowship with a joint appointment between the Office of the Science and Technology Adviser to the Secretary of State (STAS) and the National Academy of Sciences.

An Overview of the National Academies Report

E. WILLIAM COLGLAZIER (Co-Chair) is Editor-in-Chief of *Science & Diplomacy* and Senior Scholar in the Center for Science Diplomacy at the American Association for the Advancement of Science (AAAS). He served as the fourth Science and Technology Adviser to the Secretary of State from 2011 to 2014. From 1994 to 2011, he was Executive Officer of the National Academy of Sciences and the National Research Council where he helped to oversee the studies that provide independent, objective scientific advice on domestic and international public policy issues. Dr. Colglazier received his Ph.D. in theoretical physics from Caltech in 1971, and prior to 1994 worked at the Stanford Linear Accelerator Center, the Institute for Advanced Study in Princeton, the Center for Science and International Affairs at Harvard's Kennedy School of Government, and the University of Tennessee. He is a past chair of the Forum on Physics and Society and the Committee on International Scientific Affairs of the American Physical Society (APS) and a fellow of the AAAS and APS. In 2015 he received the Joseph A. Burton Forum Award from the APS for "outstanding contributions to the public understanding or resolution of issues involving the interface of physics and society" and the Order of the Rising Sun, Gold Rays with Neck Ribbon from the Government of Japan for "contributing to science and technology exchange and mutual understanding between Japan and the United States." From 2016 to 2018, Dr. Colglazier served as co-chair of the Ten-Member Group appointed by the UN Secretary General to advise on science, technology, and innovation to achieve the 17 Sustainable Development Goals of the UN 2030 Agenda.

Panel: Localization of the Sustainable Development Goals

CHERRY MURRAY (NAS/NAE) (Co-Chair and Moderator) is Professor of Physics and Deputy Director for Research, Biosphere 2 at The University of Arizona. Her current research interests include policy, research, development, education and innovation to sustain human civilization on future Earth. From 1978 to 2004, Dr. Murray held a number of research positions, which culminated in the Senior Vice Presidency of Physical and Wireless Research, at Bell Laboratories, Lucent Technologies, formerly AT&T Bell Laboratories and previously Bell Telephone Laboratories, Inc. She then served at Lawrence Livermore National Laboratory as Deputy Director for Science and Technology from 2004 to 2007, and as Principal Associate Director for Science and Technology from 2007 to 2009. She was dean of Harvard University's School of Engineering and Applied Sciences from 2009 to 2014. Dr. Murray served as the Director of the U.S. Department of Energy's Office of Science from 2015 until 2017. She served as president of the American Physical Society in 2009, on the National Commission on BP Deepwater Horizon Oil Spill and Offshore Drilling in 2010, has served on numerous National and American Academy, American Association for the Advancement of Science, American Physical Society, Department of Energy and Department of Commerce committees, and currently serves as chair of the board of the Okinawa Institute of Science and Technology Graduate University and as a director of the American Academy of Arts and Sciences. In 2019, she was elected, representing the U.S. National Academy of Sciences, as co-chair for science of the Inter Academy Partnership, a partnership of over 140 national and regional science, engineering and medical academies dedicated to providing independent and credible advice to policy makers and to strengthening the role of academies nationally, regionally and globally. In 2021 she was appointed co-chair of the Ten Member Group of the Technology Facilitation Mechanism of the United Nations. Dr. Murray received her B.S. and Ph.D. in Physics from the Massachusetts Institute of Technology.

LYNN VON KOCH-LIEBERT is the Executive Director of the California Strategic Growth Council (SGC), which works to achieve sustainability, equity, economic prosperity, and quality of life for all Californians. Ms. von Koch-Liebert has held a variety of executive-level roles in the public and private sectors, working both nationally and internationally to effectuate change. She has expertise in organizational management, strategic planning, business development, strategic partnerships, policy development, continuous improvement, and project management. She has worked across a variety of sectors, including affordable housing & homelessness, international development, logistics, infrastructure, resiliency and emergency planning. Prior to joining SGC, Ms. von Koch-Liebert was the Deputy Secretary for Housing at the California Business, Consumer Services and Housing Agency. In this role she worked to coordinate the housing finance system during the largest increase in funding in California's affordable housing history; led the housing response during the early days of the Covid-19 pandemic; led the implementation of California COVID-19 Rent Relief program; and created the Outsmart Disaster Campaign. Prior to working with the State, Ms. von Koch-Liebert was a Business Development executive at DynCorp International LLC. She also served in Afghanistan, South Sudan and Jerusalem for the United Nations Office of Project Services (UNOPS). Ms. von Koch-Liebert has a Master's degree in Public Policy from Princeton University, a Master's degree in International Security from Cranfield Defense Academy, an Advanced Project Management Certificate from Stanford University, and a Bachelor's Degree in Economics and Political Science from the University of South Dakota.

DORA FRIETZE-ARMENTA is a Planning Director at Pacoima Beautiful, a non-profit organization founded in 1996. In her role she manages the Community Engagement Plan for the Transformative Climate Communities grant projects that aim to reduce greenhouse gas emissions in the San Fernando Valley in Los Angeles County, California. Components of the project include planting 2000 trees, a mobility hub with electric charging stations, improved walkways for pedestrians, a local park renovation, and installation of solar panels on single-family homes. She also manages the Bradley Green Alley green infrastructure project that aims to reduce the heat island effect and improve storm water drainage while

creating a vibrant community space. Her educational backgrounds include a Master's degree in Urban and Regional Planning and Design and Development from the Luskin School of Public Affairs at University of California, Los Angeles and a Bachelor's Degree in Sociology and Chicano/Chicana Studies from California State University, Fullerton.

V. KELLY TURNER is Associate Professor of Urban Planning and Geography and Associate Director of the Luskin Center for Innovation in the Luskin School of Public Affairs at the University of California, Los Angeles (UCLA). Dr. Turner's training is highly interdisciplinary. She received a Ph.D. in geography at Arizona State University, where she was a National Science Foundation Integrative Graduate Education and Research Training Fellow in urban ecology. She is an expert on ways to leverage policy, planning, and design to adapt to a hotter future, with a focus on science-backed, community-engaged solutions to reduce the heat burden experienced by vulnerable communities where they live and work. She currently serves as science advisor to the Arsht-Rockefeller Extreme Heat Resilience Alliance, Trust for Public Land Greening Schoolyards Initiative, and the UCLA Environment and Climate Change Literately Project. Her work is funded by the National Science Foundation, the Resources Legacy Fund, and the Strategic Growth Council of California. It has been published in *Nature*, the *Journal of the American Planning Association*, and *Environmental Research Letters*, and featured in *National Geographic*, *Popular Science*, *CNN*, and the *Los Angeles Times*.

SYLVIA CROESE is a Senior Researcher at the South African Research Chair in Spatial Analysis and City Planning at the School of Architecture and Planning of the University of the Witwatersrand and Research Associate with the African Centre for Cities (ACC) at the University of Cape Town in South Africa. She has a Ph.D. in Sociology from the University of Stellenbosch and has conducted extensive research on urban politics, policy and governance in African cities through the lens of housing, land, urban infrastructure and mobility. This research is premised on the need for new forms of knowledge that bridge the divide between academic research and (global) urban policy by involving different actors in society through inter- and transdisciplinary research methods of co-production. Between 2017 and 2019 she served as an embedded researcher in the City of Cape Town as part of the Mistra Urban Futures research project *Implementing the New Urban Agenda and The Sustainable Development Goals: Comparative Urban Perspectives* and organized a year-long monthly seminar series on the SDGs as part of the PEAK Urban Research programme. She was also the Principal Investigator in the LIRA Agenda 2030 research project *Co-producing urban knowledge in Angola and Mozambique through community-led data collection towards meeting SDG 11*. She has published widely on her work in major international journals as well as co-edited three books: *Refractions of the National, the Popular and the Global in African Cities* (African Minds, 2021), *Reframing the Urban Challenge in Africa: Knowledge Co-production from the South* (Routledge, 2021) and *Localizing the SDGs in African cities* (Springer, 2022).