China-U.S. Scientific Engagement on Sustainability: A Workshop Series

Committee

Karen C. Seto

Chair

KAREN SETO (NAS) (Chair) is the Frederick C. Hixon Professor of Geography and Urbanization Science at Yale University. An urban and land change scientist, she is one of the world's leading experts on contemporary urbanization and global change. She uses satellite remote sensing, field interviews, and modeling methods to understand how urbanization will affect the planet, including land change, food systems, biodiversity, and climate change. She has pioneered methods to reconstruct urban land use with satellite imagery and has developed novel methods to forecast urban expansion. She has conducted urbanization research in China for twenty years and in India for more than ten. She has extensive fieldwork experience in Asia, especially China and India, where she has conducted research for over 20 and 10 years, respectively. Dr. Seto has served on numerous national and international scientific bodies. She is co-leading the urban mitigation chapter for the IPCC 6th Assessment Report and co-lead the same chapter for the IPCC 5th Assessment Report. She was co-editor-in-chief of the journal, Global Environmental Change. From 2000 to 2008, she was faculty at Stanford, where she held joint appointments in the Woods Institute for the Environment and the School of Earth Sciences. She has received many awards for her scientific contributions, including the Outstanding Contributions to Remote Sensing Research Award from the American Association of Geographers. Dr. Seto is an elected member of the U.S. National Academy of Sciences, the Connecticut Academy of Science and Engineering, and the American Association for the Advancement of Science. She received a Ph.D. in Geography from Boston University.

Ashok J. Gadgil

Member

ASHOK GADGIL (NAE) holds concurrent appointment on the University of California (UC) Berkeley Campus as Professor of Civil and Environmental Engineering, and at the Lawrence Berkeley National Laboratory (LBNL) as Faculty Senior Scientist. At UC Berkeley, Dr. Gadgil is a Distinguished Chair Professor of Safe Water and Sanitation in Civil and Environmental Engineering. He is the Principal Investigator and Faculty Director of Development Impact Lab (DIL.berkeley.edu) and of the Clean Energy Research Center for Water Energy Technologies (CERC-WET.berkeley.edu). At LBNL Dr. Gadgil is a Senior Faculty Scientist in the Energy Technologies Area. He has a Ph.D. in physics from University of California, Berkeley. His expertise ranges from computational fluid dynamics of indoor air and pollutant flows, simulation of entry and transport of indoor radon, building energy efficiency, and methods to treat drinking water to make it potable. Dr. Gadgil has more than 140 refereed archival journal papers, 150 conference papers, and several patents.

Jianguo Liu

Member

JIANGUO “JACK” LIU holds the Rachel Carson Chair in Sustainability, is University Distinguished Professor at Michigan State University and serves as director of the Center for Systems Integration and Sustainability. A human-environment scientist and sustainability scholar, Dr. Liu takes a holistic approach to addressing complex human-environmental challenges through systems integration, such as the integration of ecology with social sciences, policy and advanced technologies. He is particularly keen to connect seemingly unconnected issues, for example, telecoupling (human-nature interactions over distances), divorce and environmental sustainability. His work has been published in journals such as Nature and Science and has been widely covered by the international news media. Dr. Liu has served on various international and national committees and panels, editorial boards of international journals such as Science, and Commission on Sustainable Agriculture Intensification. Also, Dr. Liu was a coordinating lead author of the global assessment of biodiversity and ecosystem services organized by the Intergovernmental Platform on Biodiversity and Ecosystem Services. In recognition of his efforts and achievements in research, teaching, and service, Liu has received many awards and honors, such as being elected to the American Academy of Arts and Sciences, the American Philosophical Society and named a fellow of the American Association for the Advancement of Science (AAAS). Dr. Liu completed his postdoctoral study at Harvard University. He was also a visiting scholar at Stanford, Harvard and Princeton.

Steward T. Pickett

Member

STEWARD PICKETT (NAS) is a Distinguished Senior Scientist at the Cary Institute of Ecosystem Studies. He is an expert in the ecology of plants, landscapes, and urban ecosystems. Recipient of the Ecological Society of America's 2021 Eminent Ecologist Award, a member of the National Academy of Sciences, and the founding director of the Baltimore Ecosystem Study (1997-2016), Dr. Pickett also co-directed the Urban Sustainability Research Coordination Network. This project established lasting, interdisciplinary connections between urban designers, policymakers, and managers; the National Science Foundation deemed the project a model for research coordination networks. Dr. Pickett's research focuses on the ecological structure of urban areas and vegetation dynamics, with national and global applications. Among his research sites: vacant lots in urban Baltimore, primary forests in western Pennsylvania, post-agricultural fields in New Jersey, China's rapidly urbanizing Yanqi Valley, and riparian woodlands and savannas in Kruger National Park, South Africa. By applying ecological theory to urban planning, architecture, and landscape architecture, Dr. Pickett strives to convert cities and suburbs from ecological liabilities into ecological assets. He forges partnerships between ecologists and people who design and manage cities to protect and promote ecosystem services in urban environments. Patterns in ecologically-important factors like water retention, vegetation growth, and wildlife habitat availability change when humans develop natural areas. Using satellite data, Dr. Pickett studies urban landscape composition as it evolves and links this information to social and demographic influences. He has a Ph.D. from the University of Illinois.

Judith Wasserheit

Member

JUDITH N. WASSERHEIT (NAM) is Professor of Global Health, Medicine and Epidemiology, and Co-Director of the Alliance for Pandemic Preparedness at the University of Washington. Dr. Wasserheit has worked extensively at the interface of sexually transmitted infections (STI) and HIV clinical-epidemiological research, programs and policy in the U.S. and globally. Research to evaluate approaches that improve both environmental sustainability and human health, and pandemic disease preparedness are more recent areas of focus. Previously, she was the Founding Chief of the U.S. National Institutes of Health's STD Research Branch; Director of the U.S. Centers for Disease Control and Prevention's STD/HIV Prevention Program, Director of the HIV Vaccine Trials Network, and Chair of the University of Washington Department of Global Health. She was the founding Board Chair of the Consortium of Universities for Global Health and assisted in the development of the Chinese Consortium of Universities for Global Health. She has worked in Bangladesh, Colombia, Egypt, Indonesia, Kenya, Thailand and Zambia. Her development of the concept of epidemiological synergy between HIV infection and other sexually transmitted infections has had a major influence on HIV prevention policy and programs worldwide. Dr. Wasserheit has broad experience working with agencies, governments, and colleagues on STD and HIV research, policy and programmatic issues. She is a member of National Academy of Medicine, the American Epidemiological Society, the Johns Hopkins Society of Scholars, and was a London School of Hygiene & Tropical Medicine's Heath Clark Endowed Lecturer. Dr. Wasserheit earned her M.D. from Harvard University, her M.P.H. from Johns Hopkins University, and her B.A. from Princeton University.