



## Economic Effects and Policy Responses to Climate Change and Natural Disasters Conference

Thursday, December 2, 2021 | 9:00 am - 12:30 pm (EST)

The objective of this conference is to discuss recent policy research related to the economics of climate change. One set of studies analyzes the global economic and spatial effects of climate change and different policy options to mitigate its negative economic consequences, especially those related to migration, trade, taxation and innovation policy. Another set of studies focuses on the localized economic impacts of climate change and natural disasters in Africa, and corresponding policy options to promote mitigation and resilience, including technologies, infrastructure and fiscal policy. The conference will be divided into two sessions. First there will be a round table discussion with two 25-minute presentations by two keynote speakers, followed by 10-minute feedback by a discussant, and 20 minutes of Q&A. Second, authors will present their research papers for 18 minutes, followed by 5-minute feedback by a discussant, and 7 minutes of Q&A.

This event is jointly organized by the World Bank Poverty and Equity Global Practice, the Office of the Director for Regional Integration for Sub-Saharan Africa, the Middle East and Northern Africa of the World Bank, and the Institute for International Economic Policy at George Washington University.

### Conference organizers:

- **Rémi Jedwab**, Associate Professor of Economics and International Affairs, George Washington University
- **Carlos Rodríguez-Castelán**, Lead Economist, Poverty and Equity Global Practice, World Bank
- **Takaaki Masaki**, Economist, Poverty and Equity Global Practice, World Bank
- **Román David Zárate**, Economist, Development Research Group, World Bank

### Tentative agenda:

9:00 – 9:05 **WELCOMING REMARKS**  
**Boutheina Guermazi**, Director, Regional Integration for Sub-Saharan Africa, the Middle East and Northern Africa, World Bank

9:05 – 10:30 **ROUNDTABLE ON THE ECONOMIC EFFECTS AND POLICY RESPONSES TO CLIMATE CHANGE AND NATURAL DISASTERS**

Moderated by **Carolina Sánchez-Páramo**, Global Director, Poverty and Equity Global Practice, World Bank

Keynote Speakers:

- **Solomon Hsiang**, Director of the Global Policy Laboratory, University of California, Berkeley
- **Esteban Rossi-Hansberg**, Glen A. Lloyd Distinguished Service Professor, University of Chicago

Discussant: **Richard Damania**, Chief Economist in the Sustainable Development Vice Presidency, World Bank

Q&A

10:30 – 12:30 **ACADEMIC PRESENTATIONS**

Moderated by **Rémi Jedwab**, Associate Professor of Economics and International Affairs, George Washington University

Paper 1: *Climate Change, Rural Livelihoods and Urbanization: Evidence from the Permanent Shrinking of Lake Chad*, **Román David Zárate**, Economist, World Bank

Discussant: **Klaus Desmet**, Altshuler Professor of Cities, Regions and Globalization, Southern Methodist University

Q&A

Paper 2: *Harvesting the Rain: The Adoption of Environmental Technologies in the Sahel*, **Kelsey Jack**, Associate Professor in The Bren School of Environmental Science and Management, University of California, Santa Barbara

Discussant: **Sheetal Sekhri**, Associate Professor, Department of Economics, University of Virginia

Q&A

Paper 3: *Spatial Correlation, Trade, and Inequality: Evidence from the Global Climate*, **Jonathan Dingel**, Associate Professor of Economics, University of Chicago Booth School of Business

Discussant: **Mariaflavia Harari**, Assistant Professor of Real Estate at the Wharton School, University of Pennsylvania

Q&A

Paper 4: *Climatic Constraints on Aggregate Economic Output*, **Marshall Burke**, Associate Professor in the Department of Earth System Science, Stanford University

Discussant: **Paulina Oliva**, Associate Professor, Department of Economics, University of Southern California

Q&A

12:30 **CLOSING**

## Speaker Bios:



**Ms. Guerhazi**, a Tunisian national, joined the Bank in 2004 as a Regulatory Specialist. She has since held several positions of responsibility in the Information and Communication Technologies (ICT) teams, including Practice Manager for the Digital Development teams covering the Middle East and Africa Regions, and World Bank Director for Digital Development. In this position (2018-2021), she led a global team that worked on building digital economies in developing countries to drive shared prosperity and reduce poverty. She became the World Bank Director for Regional Integration for Sub-Saharan Africa, the Middle East and North Africa since October 18, 2021. In this position she oversees the implementation of the World Bank Group's regional integration strategy and leads the policy dialogue and partnership with regional organizations, country clients, and partners. Ms. Guerhazi holds a Ph.D. in Telecommunications Law and Policy from the Faculty of Law at McGill University, Canada; an L.L.M. in International Law from Indiana University, USA; and a Bachelor's Degree in Public Law from the University of Tunis, Tunisia. She held a Fulbright Scholarship and was a research scholar at the University of Michigan (USA), the Social Science Research Council (USA), and the Center of Studies for Regulated Industries (Canada).



**Carolina Sánchez-Páramo**, a Spanish national, is currently the Global Director of the Poverty and Equity Global Practice (GP) at the World Bank. Prior to this assignment, she was the Poverty and Equity GP Practice Manager in the Europe and Central Asia region. Carolina has worked on operations, policy advice and analytical activities in Eastern Europe, Latin America and South Asia, and was part of the core team working on the WDR2012, "Gender Equality and Development". Her main areas of interest and expertise include labor economics, poverty and distributional analysis, gender equality and welfare impacts of public policy. She has led reports on poverty and equity, labor markets and economic growth in several countries, as well as social sector operations. She has published articles in refereed journals and edited books on the topics described above. Carolina has a PhD in Economics from Harvard University.



**Solomon Hsiang** directs the Global Policy Laboratory at Berkeley, where his team is integrating econometrics, spatial data science, and machine learning to answer questions that are central to rationally managing planetary resources--such as the economic value of the global climate, how the UN can fight wildlife poaching, the effectiveness of treaties governing the oceans, and whether satellites and AI can be combined to monitor the entire planet in real time. Hsiang earned a BS in Earth, Atmospheric and Planetary Science and a BS in Urban Studies and Planning from the Massachusetts Institute of Technology, and he received a PhD in Sustainable Development from Columbia University. He was a Post-Doctoral Fellow in Applied Econometrics at the National Bureau of Economic Research (NBER) and a Post-Doctoral Fellow in Science, Technology and Environmental Policy at Princeton University. Hsiang is currently the Chancellor's Professor of Public Policy at the University of California, Berkeley, a Co-Director at the Climate Impact Lab, Research Associate at the NBER, a National Geographic Explorer, and an Andrew Carnegie Fellow. Hsiang is currently the Lead Author of the Economics chapter for the Fifth National Climate Assessment. In 2020, he was awarded the President's Medal by the Geological Society of America.



**Esteban Rossi-Hansberg** is the Glen A. Lloyd Distinguished Service Professor in the Kenneth C. Griffin Department of Economics at the University of Chicago (since 2021). Previously, he was the Theodore A. Wells '29 Professor of Economics at Princeton University. Prior to Princeton, he was an Assistant Professor at Stanford University. He earned a Ph.D. from the University of Chicago in 2002. His research specializes in international trade, regional and urban economics, as well as growth and organizational economics. He has published extensively in all the major journals in economics. In 2007, he received the prestigious Alfred Sloan Research Fellowship and in 2010, he received the August Lösch Prize and the Geoffrey Hewings Award. He is an elected fellow of the Econometric Society since 2017 and won the Robert E. Lucas Jr. Prize in 2019.



**Richard Damania** is the Chief Economist of the Sustainable Development Practice Group. He has held several positions in the World Bank including as Senior Economic Advisor in the Water Practice, Lead Economist in the Africa Region's Sustainable Development Department, in the South Asia and Latin America and Caribbean Regions of the World Bank. His work has spanned across multiple sectors and has helped the World Bank become an acknowledged thought-leader on matters relating to environment, water and the economy. Prior to joining the World Bank he held positions in academia and has published extensively with over 100 papers in scientific journals.



**Rémi Jedwab** is an associate professor of Economics and International Affairs at the Elliott School and the Department of Economics of George Washington University and an Affiliated Scholar of the Marron Institute of Urban Management at New York University. Professor Jedwab's main fields of research are development and growth, urban economics, labor economics and political economy. Some of the issues he has studied include urbanization and structural transformation, the relationship between population growth and economic growth, the economic effects of transportation infrastructure, and the roles of institutions, human capital and technology in development. He is the co-founder and co-organizer of the World Bank-GWU Urbanization and Poverty Reduction Conference and the Washington Area Development Economics Symposium. His research has been published in the American Economic Review, the Review of Economics and Statistics, the Economic Journal, and the Journal of Urban Economics. Finally, he is an Associate Editor at the Journal of Urban Economics and Regional Science and Urban Economics.



**Román David Zárate** is an economist at the Trade and Integration unit of the World Bank's Development Research Group (DEC-RG). He received a PhD in Economics from UC Berkeley. His research interests are in international trade, urban economics, and development economics. He primarily focuses on how different forms of market integration impact aggregate welfare and productivity in developing countries.



**Klaus Desmet** is the Altshuler Professor of Cities, Regions and Globalization at Southern Methodist University, Research Associate at NBER and Research Fellow at CEPR. He holds an MSc in Business and Engineering from the Université catholique de Louvain and a PhD in Economics from Stanford University. Before moving to SMU, he was Professor at Universidad Carlos III de Madrid. His research focuses on regional economics, economic growth, political economy and international trade. His work has appeared in journals such as the American Economic Review, the Journal of Political Economy, the Journal of Economic Theory and the Journal of Development economics. In 2019 he was the co-recipient of the Robert E. Lucas Jr. Prize.



**Kelsey Jack** is an Associate Professor at the Bren School of Environmental Science and Management at UC Santa Barbara. She does research at the intersection of environmental and development economics, with a focus on how individuals, households, and communities impact and are impacted by the environment. She uses field experiments to test theory and new policy innovations in numerous countries in Africa, Asia and Latin America. Jack joined the Bren School after seven years as an Assistant Professor in the Economics Department at Tufts University and a postdoc position at MIT. She is the director of the Poverty Alleviation group at the Environmental Markets Lab (emLab) at UCSB, co-chair of the Energy, Environment and Climate Change sector at the Abdul Latif Jameel Poverty Action Lab (J-PAL) at MIT and an Associate Editor at the American Economic Review. She holds a bachelors degree in Public and International Affairs from Princeton University and a PhD in Public Policy from Harvard University. Before graduate school, she spent two years in Lao PDR working for IUCN.



**Sheetal Sekhri** is a tenured associate professor in the department of Economics at the University of Virginia. She received her PhD from Brown University. As a development economist, most of her research is in two thematic areas. She uses theoretical insights and data to answer questions related to causes and consequences of water scarcity and pollution. She also addresses issues related to gender-based violence. Her other interests are higher education, skilled labor markets, and state capacity in developing countries. Her work often uses primary datasets that she generates based on surveys she conducts and is informed by insights from various disciplines. She has conducted extensive field work in India.



**Jonathan Dingel** is an Associate Professor of Economics at the University of Chicago Booth School of Business, a Faculty Research Fellow at the National Bureau of Economic Research, and a Research Fellow at the Centre for Economic Policy Research. His research agenda focuses on the spatial distribution of economic activities across neighborhoods, cities, and countries. He tries to understand the substantial variation in the amount and nature of economic activity across space. Recently, he examined the scope for telecommuting, using satellite images to define cities, and how the global climate affects agricultural trade.



**Mariaflavia (Nina) Harari** is an Assistant Professor of Real Estate at the Wharton School, University of Pennsylvania, specializing in urban economics and development economics. Her research agenda is centered on urbanization in developing countries. Her research was featured on the American Economic Review. Dr. Harari holds a B.A. and a M.Sc. in Economics and Social Sciences from Bocconi University and a Ph.D. in economics from the Massachusetts Institute of Technology.



**Marshall Burke** is associate professor in the Department of Earth System Science and Deputy Director at the Center on Food Security and the Environment at Stanford University, and Research Fellow at the National Bureau of Economic Research. His research focuses on social and economic impacts of environmental change, and on measuring and understanding economic livelihoods across the developing world. His work regularly appears in both economics and scientific journals, including recent publications in Nature, Science, the Quarterly Journal of Economics, and The Lancet. He holds a PhD in Agricultural and Resource Economics from UC Berkeley, and a BA in International Relations from Stanford. He is also co-founder of AtlasAI, a start-up using satellites and machine learning to measure livelihoods.



**Paulina Oliva** is an Associate Professor in the Economics Department of the University of Southern California. She holds a PhD in Economics from UC, Berkeley. She specializes in the fields of Environmental Economics and Development; and specifically, on the relationship between air pollution and health and on environmental policy effectiveness in the developing world. Her work uses a variety of microeconomic techniques to study individual incentives and human impacts of air pollution.