

Hélène Benveniste

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Academic Appointments

- 2024– Assistant Professor, Department of Environmental Social Sciences,
Doerr School of Sustainability, Stanford University
- 2023–2024 Postdoctoral Fellow, Harvard University Center for the Environment and
Salata Institute for Climate and Sustainability, Harvard University
- 2021–2023 Environmental Fellow, Harvard University Center for the Environment and
Harvard Kennedy School, Harvard University.

Education

Ph.D. in Science, Technology and Environmental Policy, 2021
School of Public and International Affairs, Princeton University
Dissertation Committee: M. Oppenheimer (Chair), D. Anthoff, M. Fleurbaey, A. Moravcsik, E. Weber
Dissertation Title: "Science for International Policy on Climate Change: A Multi-Method Contribution"

M.A. in Science, Technology and Environmental Policy, 2018
School of Public and International Affairs, Princeton University

M.Sc. in Engineering, Minor in Geostatistics and Applied Probabilities, 2012
Ecole Nationale Supérieure des Mines de Paris (Mines Paristech)
Thesis Advisors: P. Naveau (LSCE), R. Katz (NCAR), D. Cooley (CSU)
Thesis Title: "Assessing Forecasts of Extreme Weather Events: Extreme Value Theory for Precipitation"

Research Interests

Subfields: Environmental Policy, International Political Economy, International Relations

Areas of Interest: Human Migration and Climate Change, Global Environmental Governance

Methods: reduced-form empirical estimation, supervised machine learning, Integrated Assessment Models, gravity models of migration, socioeconomic and climate scenarios, process tracing

Publications

Peer-Reviewed Journal Articles

H. Benveniste, M. Oppenheimer, M. Fleurbaey (2022). "Climate Change Increases Resource-Constrained International Immobility." *Nature Climate Change*, 12, 634–341. doi: 10.1038/s41558-022-01401-w.

H. Benveniste, J. Crespo Cuaresma, M. Gidden, R. Muttarak (2021). "Tracing International Migration in Projections of Income Levels and Inequality across the Shared Socioeconomic Pathways." *Climatic Change*, 166 (39). doi: 10.1007/s10584-021-03133-w.

H. Benveniste, M. Oppenheimer, M. Fleurbaey (2020). "Effect of Border Policy on Exposure and Vulnerability to Climate Change." *Proceedings of the National Academy of Sciences*, 117 (43), 26692–26702. doi: 10.1073/pnas.2007597117.

H. Benveniste, O. Boucher, C. Guivarch, H. Le Treut, and P. Criqui (2018). "Impacts of Nationally Determined Contributions on 2030 Global Greenhouse Gas Emissions: Uncertainty Analysis and Distribution of Emissions." *Environmental Research Letters* 13, 1. doi: 10.1088/1748-9326/aaaob9.

O. Boucher, V. Bellassen, **H. Benveniste**, P. Ciais, P. Criqui, C. Guivarch, H. Le Treut, S. Mathy, and R. Sférian (2016). "In the Wake of Paris Agreement, Scientists Must Embrace New Directions for Climate Change Research." *Proceedings of the National Academy of Sciences*, 113, 7287-7290. doi: 10.1073/pnas.1607739113.

Working Papers

H. Benveniste, P. Huybers, J. Proctor. "Global Climate Migration Is a Story of Who, Not Just How Many." Under review.

H. Benveniste, S. Capisani. "Governing Climate Migration: A Right to a Livable Space in the Paris Agreement". Under review.

H. Benveniste, A. Moravcsik, M. Oppenheimer. "Why Would Aspirational Goals Matter? Using the History of Global Environmental Governance to Set Expectations for the Paris Agreement." In prep.

Other Publications

H. Warren, A. Daraeepour, G. Davies, J. Lane, **H. Benveniste**, N. Choquette-Levy, R. Majumdar, T. Postma, P. Ramamurthi, M. Nagdee, and R. Wagner (Feb 2020). *Princeton Energy Dialogues Executive Summary*.

O. Boucher, **H. Benveniste**, and C. Guivarch (May 17 2016). "Nations' Pledges to Reduce Emissions and the 2°C Objective". *EOS*, 97. doi: 10.1029/2016EO052397.

H. Le Treut, P. Criqui, **H. Benveniste**, O. Boucher, F.-M. Bréon, P. Ciais, T. Gasser, C. Guivarch, F. Lecocq, S. Mathy, E. Prados, D. Salas y Mélia, and R. Sférian (Nov 2015-Jan 2016). "Les dessous des 2°C" . *Le Monde*, special issue on COP21.

H. Le Treut, O. Boucher, V. Bellassen, **H. Benveniste**, F.-M. Bréon, P. Ciais, P. Criqui, T. Gasser, C. Guivarch, F. Lecocq, S. Mathy, E. Prados, D. Salas y Mélia, and R. Sférian (Dec 8 2015). "COP21 : Pour rejoindre rapidement une trajectoire limitant le réchauffement à 2°C" . *Le Monde*.

Scholarships, Awards, Grants

2021–2023: French Environmental Fellowship Fund at Harvard University Center for the Environment

2019–2020: Fellowship of Woodrow Wilson Scholars, cross-disciplinary social science fellowship for policy-oriented research

2019: National Academy of Sciences / National Science Foundation fellowship grant for Young Scientists Summer Program at International Institute for Applied Systems Analysis, Laxenburg, Austria

2018–2020: Princeton Energy and Climate Scholars, transdisciplinary scholarship fostering exchanges between Princeton PhD students on climate and energy issues

2016–2021: Princeton University fellowship, School of Public and International Affairs

Invited Presentations

2024: Centro Euro Mediterraneo sui Cambiamenti Climatici Workshop on Climate Migration. Princeton University Climate Mobilities conference. International Studies Association annual conference. University of Michigan School for Environment and Sustainability.

2023: Duke University Nicholas School of the Environment. Lehigh University Department of International Relations. Harvard Kennedy School of Government. Brown University Watson Institute for International and Public Affairs and Department of Political Science. Cornell University Department of Political Science. Stanford Doerr School of Sustainability. University of California Riverside School of Public Policy. Government of Canada School of Public Service. American Political Science Association annual meeting. Politics of Climate and the Environment conference at University of California Los Angeles. Managed Retreat conference at Columbia University. Preparing for a Changing Climate conference at Stanford University. University of California San Diego Political Science Department International Relations seminar. Population Association of America annual meeting. Harvard Kennedy School Energy Policy seminar.

2022: Climate (Im)mobility & Conflict expert workshop at Potsdam Institute for Climate Impact Research. Georgetown Just Sustainability Transitions seminar. Toronto Conference on Earth System Governance. American Political Science Association annual meeting. World Bank and Columbia University expert consultation on Modeling Methods for Forecasting Climate Mobility in Small Island Developing States. Annual conference on Environmental Politics and Governance. Scenarios Forum. IIASA 50th Anniversary Meeting at Boston University. Harvard University Planetary Health Colloquium.

2021: Integrated Assessment Modeling Consortium annual meeting. Brown University Climate Pipeline Workshop. University of Chicago Center in Paris Climate Migrations Conference. University of California Los Angeles Climate Adaptation Research Symposium. European Association of Environmental and Resource Economists annual conference. Association of Environmental and Resource Economists summer conference. Population Association of America annual meeting. Princeton University STEP-HMEI PhD Seminar. Massachusetts Institute of Technology Department of Urban Studies & Planning and Schwarzman College of Computing. Denver University Korbel School of International Studies.

2020: Yale School of the Environment. American Geophysics Union fall meeting. Integrated Assessment Modeling Consortium annual meeting. University of California Berkeley Department of Environmental Science, Policy, & Management and Energy & Resources Group. European Association of Environmental and Resource Economists annual conference. Association of Environmental and Resource Economists annual conference. Princeton University Fellowship of Wilson Scholars seminar.

2019: American Geophysics Union fall meeting. Princeton Energy and Climate Scholars seminar. Princeton University STEP-HMEI PhD Seminar. International Institute for Applied Systems Analysis (IIASA) Young Scientists Summer Program colloquium.

2018: Paris School of Economics Summer School on climate change impacts/modeling/regulation. Columbia University Interdisciplinary Ph.D. Workshop in Sustainable Development.

2016: United Nations Framework Convention on Climate Change, Subsidiary Body for Scientific and Technological Advice, Research Dialogue.

2015: French Ministry of Environment.

Professional Service and Affiliations

Member of the American Political Science Association, the International Studies Association, the Association of Environmental and Resource Economists, the Population Association of America

Reviewer for *Science*, *Proceedings of the National Academy of Sciences*, *Nature Climate Change*, *Nature Human Behavior*, *One Earth*, *Environmental Research Letters*, *Population and Environment*, *Climatic Change Migration Letters*, *Environmental Research Communications*, *Vienna Yearbook of Population Research*

Lead Author of the Special Report on Environmental change, conflicts and human migration by the Mediterranean Experts on Climate and environmental Change, 2022–2023

Organizer of Conversations about Environment, Responsible Energy and Life (CEREAL), weekly breakfast discussions hosted by the Princeton Environmental Institute, 2017–2019

Program Committee Member of the 2nd Knowledge Discovery and Data Mining (KDD) Workshop on Data-driven Humanitarian Mapping, 2021

Teaching, Mentoring, and Outreach

2023–2024: Senior thesis adviser (A. Baxter), Social Studies, Harvard University

2023: "Migrations" (R. Vega-Duran). Guest lecture, Harvard University

2021–2022: "Human Environmental Data Science" (P. Huybers). Guest lectures, Harvard University

2022: "Climate Mobility" (A. de Sherbinin). Guest lecture, Columbia University

2021: "International Law & Global Justice" (K. Sikkink). Guest lecture, Harvard University

2021: "Sociology of Climate Change" (J. Beckfield). Guest lecture, Harvard University

2019: "Climate Change Impacts, Adaptation & Policy". Teaching assistant, Princeton University

2018–2020: Year-long outreach program coordination at high schools in Princeton and Trenton, NJ

2015: Outreach events at multiple French middle/high schools/city halls on the Paris Agreement

Research Experience

IvyPlus Exchange Scholar, Energy Policy Institute, University of Chicago, USA, 2020–2021

Young Scientist Summer Program, International Institute for Applied Systems Analysis, Austria
World Population and Energy groups, 2019

IvyPlus Exchange Scholar, Energy and Resources Group, UC Berkeley, USA, 2018

Research fellow, National Center for Atmospheric Research / Colorado State University / Laboratoire des Sciences du Climat et de l'Environnement), USA/France, 2012

Policy Experience

International Organization for Migration, remote
Consultant, 2021

Scientific advisory group to the French negotiation team for the Paris Agreement, Centre National de la Recherche Scientifique / French Ministry of Environment, Paris, France
Project Manager / Research Engineer, 2015–2016

French Embassy in Germany, French Alternative Energies and Atomic Energy Commission / French Ministry of Foreign Affairs, Berlin, Germany
Deputy Attaché for Energy, 2012–2014

Industry Experience

ENEA Consulting, Paris, France, 2014–2015
Consultant, energy technologies

Deutsche Windguard, Germany, 2011
Engineer intern, risk analysis for offshore wind energy

Skills

Programming: Julia, Stata, Python, R, VBA

Languages: English, German, French (native)

References

Michael Oppenheimer

Albert G. Milbank Professor of Geosciences and International Affairs
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