

# Workshop on Climate Change and Human Migration: An Earth Systems Science Perspective

March 18-19, 2024

FOR REGISTRATION AND MORE INFORMATION, PLEASE VISIT THE [WORKSHOP WEBSITE](#)

This workshop will be webcast

## MONDAY, MARCH 18, 2024

## \*ALL TIMES LISTED IN U.S. EASTERN TIME

### Purpose

The National Academies will convene a workshop to consider how an Earth systems science approach, as discussed in the 2021 National Academies' report Next Generation Earth Systems Science at the National Science Foundation, could be used to address climate change impacts (e.g., sustained droughts, repeated and severe flooding, increased frequency and intensity of hurricanes and cyclones, saltwater intrusion into coastal aquifers, increased risks of wildfire) and their influence on human migration. The workshop will include discussions on:

- Impacts of catastrophic events on people and infrastructure, versus chronic, sustained, and/or repeated events
- How multidisciplinary and **transdisciplinary** Earth systems science approaches can help advance understanding of how climate change may affect migration, improve the ability to anticipate how and where migrations might take place, and can inform strategies to address the impact of migration, especially on vulnerable populations
- Critical gaps in research and data

9:30

**Registration**

10:00–10:15

**Welcome & Opening Remarks**

**Amir AghaKouchak\***, University of California, Irvine, Organizing Committee Chair

**Alexandra Isern**, National Science Foundation

10:15–11:15

**Keynote: Broad Overview on Climate Change and Human Migration: Current Status and Research Gaps**

**Justin Mankin**, Dartmouth College

**Lori Hunter\***, University of Colorado, Boulder

**Malinda Chase**, Alaska Climate Adaptation Science Center

Moderator: **Kilaparti Ramakrishna\***, Woods Hole Oceanographic Institution

11:15–12:30

**Session 1: Mechanisms and Pathways for Modeling the Impacts of Catastrophic Events on Human Migration**

**Giuliano Di Baldassarre**, Uppsala University

**Nina Lam**, Louisiana State University

**Serena Ceola**, University of Bologna

**Elizabeth Marino**, Oregon State University Cascades

Moderator: **Elizabeth Fussell\***, Brown University

**12:30–1:15**      **Break**

**1:15–2:30**      **Session 2 Mechanisms and Pathways for Modeling the Impacts of Chronic and slow-onset Events on Human Migration**

**Kevin Anchukaitis**, University of Arizona

**Cristina Cattaneo**, CMCC Foundation - Euro-Mediterranean Center on Climate Change, Italy and RFF-CMCC European Institute on Economics and the Environment, Italy

**Cascade Tuholske**, Montana State University

Moderator: Shanna M. McClain\*, National Aeronautics and Space Administration

**2:30–2:40**      **Break**

**2:40–3:55**      **Session 3: Transdisciplinary Research and Collaborations**

**Pierre Gentine**, Columbia University

**Katharine Donato**, Georgetown University

**Diana Liverman**, University of Arizona

Moderator: **Diego Pons\***, University of Denver

**4:00–4:15**      **Day 1 Recap**

**Amir AghaKouchak\***, University of California, Irvine

**END OF DAY 1**

## **TUESDAY, MARCH 19, 2024**

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**10:00–10:10**      **Welcome**

**Amir AghaKouchak\***, University of California, Irvine, Organizing Committee Chair

**10:10–11:25**      **Session 4: Regional vs. Global Perspectives for Modeling Climate Change-Migration Impacts**

**Paolo D'Odorico**, University of California, Berkeley

**Alexander de Sherbinin**, Columbia University

**Meda DeWitt**, The Wilderness Society

Moderator: **Jackie Qataliña Schaeffer\***, Alaska Native Tribal Health Consortium

**11:30–12:45**      **Session 5: Harmonization of spatial and temporal data and models to advance an Earth Systems Science Approach to Modeling Climate-Migration**

**Chris Funk**, University of California, Santa Barbara

**Ali Mostafavi**, Texas A&M University

**Deborah Balk**, City University of New York

Moderator: **Somayeh Dodge\***, University of California Santa Barbara

**1:00–1:40**

**Synthesis**

**Danielle N. Poole\***, Yale School of Public Health

**Elizabeth Fussell\***, Brown University

**1:45–2:00**

**Closing Remarks**

**Amir AghaKouchak\***, University of California, Irvine

**2:00**

**MEETING ADJOURNS**

\*Workshop Organizing Committee

*This workshop was organized by the following experts: **Amir AghaKouchak (workshop Chair)**, University of California, Irvine; **Somayeh Dodge**, University of California, Santa Barbara; **Elizabeth Fussell**, Brown University; **Lori Hunter**, University of Colorado Boulder; **Shanna N. McClain**, NASA; **Diego Pons**, University of Denver; **Danielle N. Poole**, Yale University; **Kilaparti Ramakrishna**, Woods Hole Oceanographic Institution; **Jacqueline Qataliña Schaeffer**, Alaska Native Tribal Health Consortium*