

Cascading Failures, Compounding Risks, and Social Instability

Exploring the Geographical Dimensions of Extreme Climate Change



THURSDAY, DECEMBER 8, 2022

Droughts, storms, floods, wildfires, heatwaves, and similar weather-related events have been increasing in recent years. These billion-dollar disasters are expected to continue to increase over the next few decades due to climate change, putting stress on infrastructure, institutions, communities, and people. Predictions of future climate change are critical to preparing for impacts. Most planning for future impacts has been based on mid- and lower-end predictions from earth system models, but impacts and implications for society could be much worse under extreme climate change scenarios.

This meeting of the Geographical and Geospatial Sciences Committee will address the implications of these scenarios and the role novel geospatial data sources and analytics can play to improve understanding for basic research, policy, and responses.

EASTERN STANDARD TIME

11:00–11:10am Welcome

Harvey Miller and **Pat McDowell**, Co-Chairs, Geographical and Geospatial Sciences Committee

11:10–12:30pm Extreme Climate Change Scenarios

Luke Kemp, Research Associate, Centre for the Study of Existential Risk, University of Cambridge (remote)

Discussants:

- **Diana Liverman**, Emeritus Professor of Geography, Development and Environment, University of Arizona (remote)
- **Susan Cutter**, Carolina Distinguished Professor and Co-Director of Hazards Vulnerability & Resilience Institute, University of South Carolina (remote)

Moderator: **Kathleen Stewart**, Member, Geographical and Geospatial Sciences Committee

12:30–1:00pm Lunch Break

1:00–2:15pm Social Vulnerability and Infrastructure Concerns under Extreme Climate Change

Panelists:

- **Christian Braneon**, Head of Climate Justice, Carbon Direct
- **Matthias Garschagen**, Chair in Human Geography, Ludwig Maximilian University of Munich (remote)
- **Mark Pelling**, Professor in Risk and Disaster Reduction, Institute of Risk and Disaster Reduction, University College London (remote)

Moderator: **Elisabeth Root**, Member, Geographical and Geospatial Sciences Committee

2:15–2:30pm **Break**

2:30–3:45pm **Security Concerns under Extreme Climate Change**

Panelists:

- **Siri R.**, Director for Climate & Migration, National Intelligence Council
- **John O'Loughlin**, College Professor of Distinction, University of Colorado, Boulder
- **Nina von Uexkull**, Associate Professor, Department of Peace and Conflict Research, Uppsala University (remote)

Moderator: **Budhu Bhaduri**, Member, Geographical and Geospatial Sciences Committee

3:45–4:00pm **Wrap-up**

- **Glen MacDonald**, Member, Geographical and Geospatial Sciences Committee