

Cities at Risk: Urban Growth Dynamics in the Presence of Climate and Natural Shocks

Organizers

Daniel Centuriao, West Virginia University (dc00041@mix.wvu.edu)

Caroline Welter, West Virginia University (caw00024@mix.wvu.edu)

Urban areas continue to expand in size, density, and economic importance, yet this growth increasingly occurs in the presence of climate-related and natural shocks. Floods, landslides, earthquakes, hurricanes, heatwaves, wildfires, and other extreme events interact with urban growth processes in complex ways, shaping spatial development patterns, infrastructure investment, housing markets, and population dynamics.

This session invites contributions that examine the dynamic relationship between urban growth and exposure to climate and natural hazards. We welcome theoretical, empirical, and methodological papers that explore how cities grow, adapt, or decline in response to environmental risk, as well as how past growth decisions influence vulnerability and resilience to future shocks.

A particular focus of the session is on transportation systems and mobility networks, which play a central role in urban functioning and are often highly exposed to climate and natural hazards. Relevant topics include disruptions to road, rail, and public transit systems; impacts on commuting patterns, logistics, and accessibility; infrastructure resilience and adaptation investments; and the implications of transportation failures for economic activity, inequality, and recovery dynamics.

Topics of interest also include migration and residential sorting, land use and housing markets, infrastructure and public investment, local labor markets, inequality and environmental justice, and long-run regional development. We particularly encourage papers that employ spatial, panel, or quasi-experimental methods; integrate geospatial, remote sensing, or administrative data; or evaluate policy interventions related to mitigation, adaptation, and resilience.

By bringing together research across urban economics, regional science, environmental economics, transportation economics, and disaster economics, this session aims to advance understanding of how climate and natural events shape urban growth trajectories and what this implies for sustainable, resilient, and equitable urban development.