



# Seminario de Microeconomía Aplicada - Urbanization, Climate Shocks, and Density

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**Resumen:** How do extreme climate shocks reshape the structure of cities? This paper argues that extreme shocks alter urban form by changing the relative attractiveness of locations within metropolitan areas. Using high-resolution satellite imagery and a grid-level panel for Ecuador, Peru, and Chile along South America's Pacific coast, we show that precipitation and heat shocks generate different spatial responses. Rainfall shocks increase the relative importance of already-developed locations, consistent with infrastructure and public-service capacity helping cities absorb flood-related risks; the implied effects range from built-up losses in low-urbanized grids to gains of up to 270,000 more square meters in highly urbanized grids. Heat shocks shift development toward less built-up but connected peripheral areas, consistent with decentralization as an adaptation margin under thermal stress. These findings point to micro-scale spatial adjustment within cities, rather than only rural-to-urban migration or aggregate urban expansion.

**Acerca del expositor:** Joaquin Urrego is an assistant professor in the Economics Department at Wake Forest University. His research sits at the intersection of urban and development economics, the economics of crime, and real estate. He received his Ph.D. in Economics from Syracuse University and his master's and bachelor's in Economics from Universidad EAFIT. His work studies how the built environment, neighborhood amenities, and local institutions shape spatial patterns of informal housing, crime, and commercial real estate.

**Tiempo de exposición:** 1 hora y 30 minutos.