

Comments

Urbanization and poverty reduction research conference 2023
Session 1. City resilience to climate change
January 30, 2023

WELFARE IMPACTS OF FLOODS IN CITIES WITH FORMAL AND INFORMAL HOUSING: ANALYSIS FOR THE CITY OF CAPE TOWN

Paolo Avner, Charlotte Liotta, Thomas Monnier, Basile Pfeiffer, Claus Rabe, Harris Selod, Vincent Viguie, Claus Rabe

Intro Data Framework Baseline Results Heterogeneity

Don't Look Up?

Durable Skyscrapers and Future Climate Change

Remi Jedwab

(George Washington University)

NANCY LOZANO GRACIA, LEAD ECONOMIST

SUSTAINABLE DEVELOPMENT, LATIN AMERICA AND THE CARIBBEAN REGION

WORLD BANK

Welfare impacts of floods in cities with formal and informal housing: Analysis for the city of Cape Town

Avner et al.

- ▶ Tools for cities to make decisions to address challenges posed by climate change
- ▶ Estimating expected damages is good but not enough
- ▶ Better understanding of the interaction between city structure, policies/investments, and climate change
- ▶ Challenge: data!
 - ▶ Households, jobs, floods....
 - ▶ Cell phone data may provide an alternative to estimate distribution of residential and job locations throughout the city when data is not available (Zagatti et al 2018, Fraiberger et al. 2020, Barzin et al 2022)
 - ▶ Floods – global vs detailed city data

Welfare impacts of floods in cities with formal and informal housing: Analysis for the city of Cape Town

Avner et al.

Where to go from here?

- ▶ Multiplicity of risks – compounding effects?
- ▶ How to introduce uncertainty as part of the policy options to inform the choices policy makers have
 - ▶ Considering migration scenarios will be important
- ▶ Heterogeneity of households and coping mechanisms
 - ▶ Information
 - ▶ But better understanding of location choices is needed to lift other barriers – investments, incentives, or insurance
- ▶ Think about capacity building!

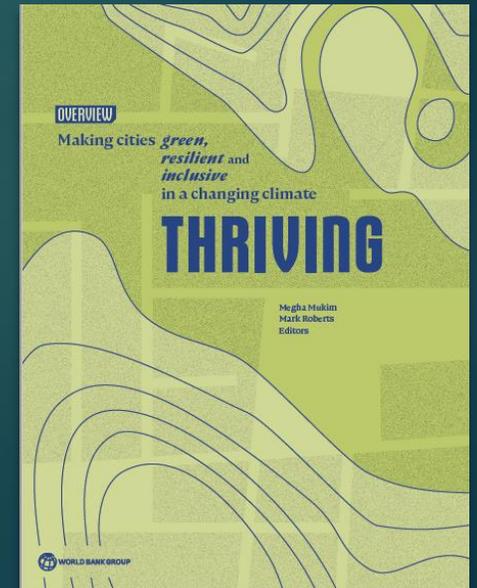
Future Climate Change and Durable Real Estate: is the World Over-Building in “Bad” Locations” – Remi Jedwab

- ▶ From shocks to slow onset events
- ▶ **Why** do we care about heat in cities?
 - ▶ Productivity, Prices, Quality of life, Effects on Infrastructure (including connectivity)
 - ▶ Others – recent evidence on relation between heat and violence
 - ▶ But evidence is still limited and we need to better understand
 - ▶ What are the costs?
 - ▶ Who will be affected – effect on the vulnerable, economic sectors, locations (city center vs. periphery)
- ▶ But heat can be mitigated, so **when** should we care?
 - ▶ Slow technology transition and adoption in developing countries
 - ▶ Rapid increase in urban expansion (out and up) in developing countries
 - ▶ Increased demand pressures in cities -continued rural-urban migration and climate induced migration

Future Climate Change and Durable Real Estate: is the World Over-Building in “Bad” Locations” – Remi Jedwab

▶ **What** to do about it?

- ▶ **THRIVING – Making Cities Green, Inclusive, and Resilient in a Changing Climate** (World Bank, 2022) suggests Information, Institutions, Investments, Incentives and Integration
 - ▶ To allow both private agents and governments to take better informed decisions
 - ▶ To facilitate technology adoption and innovation – e.g. nature based solutions
 - ▶ To increase substitution between locations
- ▶ Improve consideration of future **uncertainty** into public investment decisions



Future Climate Change and Durable Real Estate: is the World Over-Building in “Bad” Locations” – Remi Jedwab

▶ **Where** to go next?

- ▶ What is the story for China?
- ▶ Going further into the nuisances of the results: e.g Development status vs building heights, regions – considering different conclusions for 55-120 vs 140-195mt
 - ▶ 42% of tall building is upper middle-income countries and 8% in lower-middle and low income – building height distribution
- ▶ Explore degree of substitution through measures of connectivity– restricting sample to global cities (e.g. international airport), countries with both FBL and non-FBL cities (e.g. include some measure of connectivity)
- ▶ Consider/discuss impact of land supply constraints and costs of these as a barrier to effective adaptation

Parting thoughts...

- ▶ Climate shocks interact with many other shocks – better understanding impacts of multiple shocks is also important
 - ▶ Energy prices; social unrest; food prices, among others
 - ▶ What are the impacts of these shocks on cities, what costs for the urban economy, what implications for poverty and inequality; what are policy options to tackle such impacts and minimize costs/negative effect?
 - ▶ Will everything stay the same or should we be thinking about different scenarios for our models
- ▶ High uncertainty (e.g. migration) how to inform policy decisions under deep uncertainty?
- ▶ Heterogeneity of impacts – where and who are the most affected
- ▶ Continued efforts on data and tools are needed
- ▶ The role of information – for policymakers AND people
- ▶ Building institutions and capacity at national and local levels

Thank you!

Download



@WBG_Cities

