



WORLD BANK GROUP



**DEVELOPMENT
RESEARCH**

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Informal land use

Harris Selod (The World Bank)

What is informal land use? What causes it?

Informal land use refers to **various situations**

- Unclear, contested or **weak property rights** (land tenure informality)
- **Land accessed or developed outside formal processes** (violation of zoning)

The **informal land market** is a response to...

- Unavailability/**unaffordability** of formal land and housing
- Inadequate legal framework and **excessive regulations**
- **Costly or difficult process of formalization/regularization**

Why informal land use matters

Informal land use **exacerbates the costs of urbanization**

- Insecure, inequitable and costly access to land
- Social, economic, and environmental externalities
- Pressure on infrastructure provision and costly regularization

It also **weakens the benefits of agglomeration**

- Land misallocation
- Suboptimal investment in land
- Missed opportunity of land taxation (needed to fund infrastructure)

There are **positive aspects**

- It is a constrained response to other upstream distortions (consequence, not cause)
- Informal land use provides “access to the city” to the poorest (social function)

The role of policy

How to address **market failures** (efficiency)

How to **protect vulnerable groups** (equity)

How to **accommodate the need for land**, housing and services for urban development? A key question in the face of rapid urban expansion (This may be THE big challenge of the 21st century, especially in SSA)

Policy implementation clashes with sensitive **political economy issues**

Why studying informal land use is relevant

Informal land use is only partially understood

- There is multidisciplinary **research on some forms of informality** (e.g., squatter settlements)
- An **economic literature** is currently emerging

Main lesson: *informality cannot be studied in isolation* (it is part of a system)

It evolves over time and needs to be studied in a dynamic perspective

Assessing the **benefits & costs of informality should inform policies**

This requires a detailed understanding of informality

Embedding informality in a land-use simulation model for Cape Town

(Pfeiffer, Rabe, Selod and Viguié, work in progress)

“Workings” of the simulation model

A **basic urban economics model** to guide urban planning analysis
(simulating broad trends in the city)

Supply of housing

Formal buildings (responds to real estate prices and constructions costs)

Exogenous zoning, regulations, state construction programs

Informal housing on exogenously defined zones (inf. settlements & backyarding)

Demand for housing

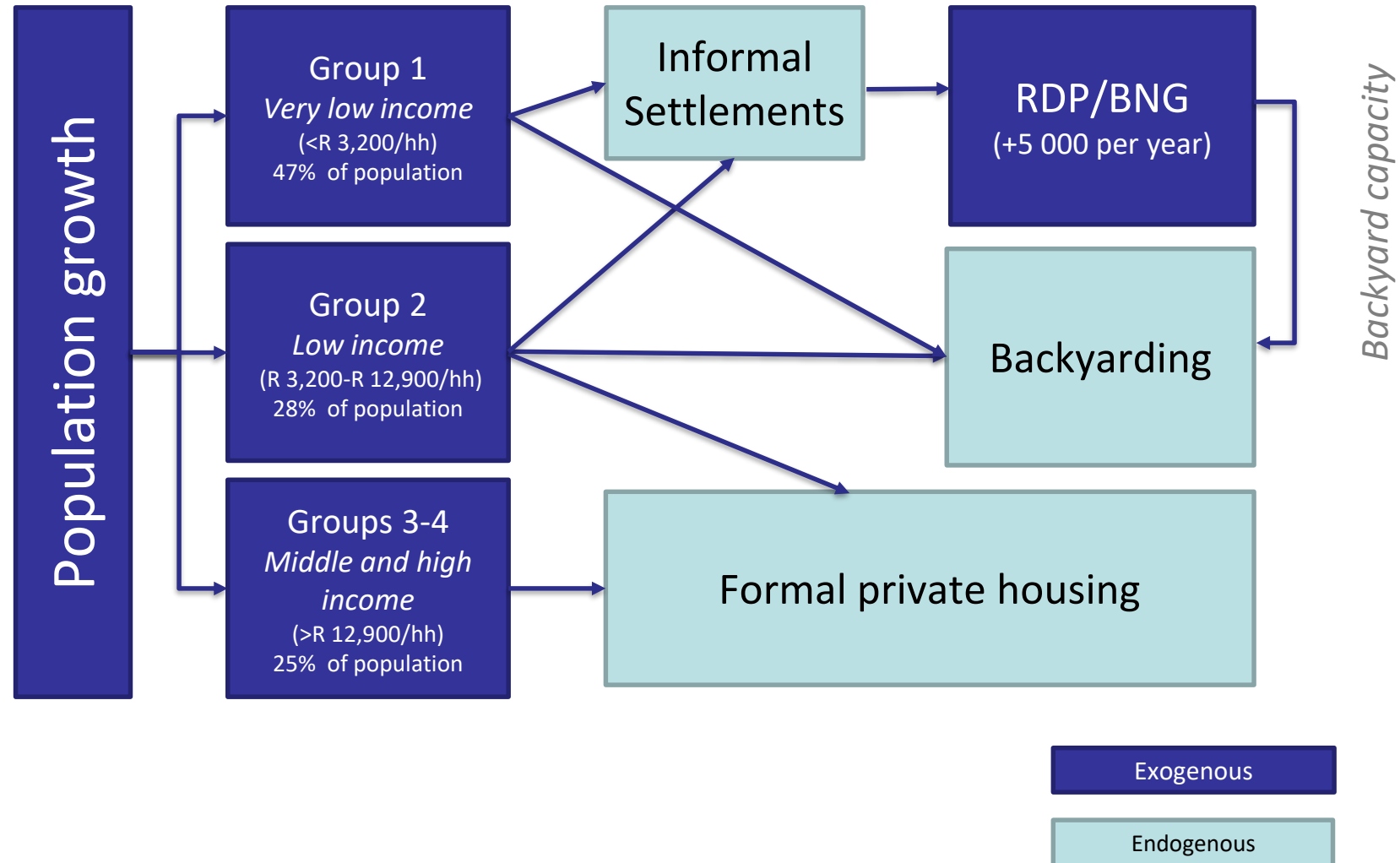
Trade-off between accessibility to jobs (polycentric city) and real estate prices

Local amenities

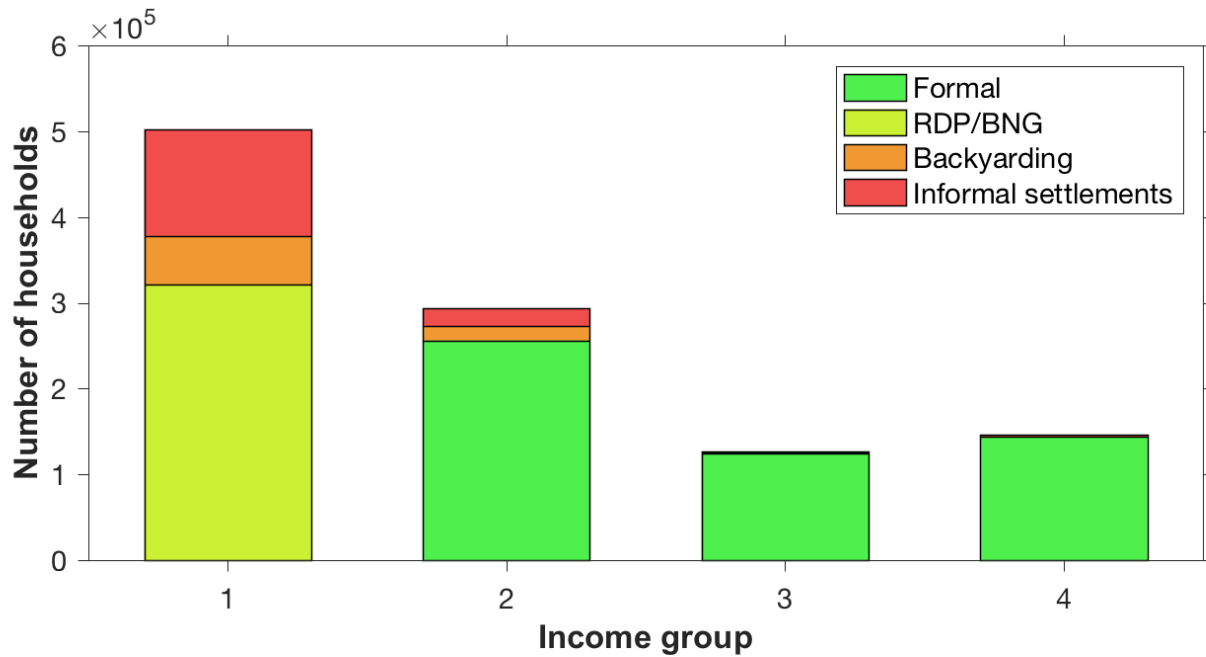
Disamenity from informal housing

The model is **calibrated** on existing data for a 2011 benchmark

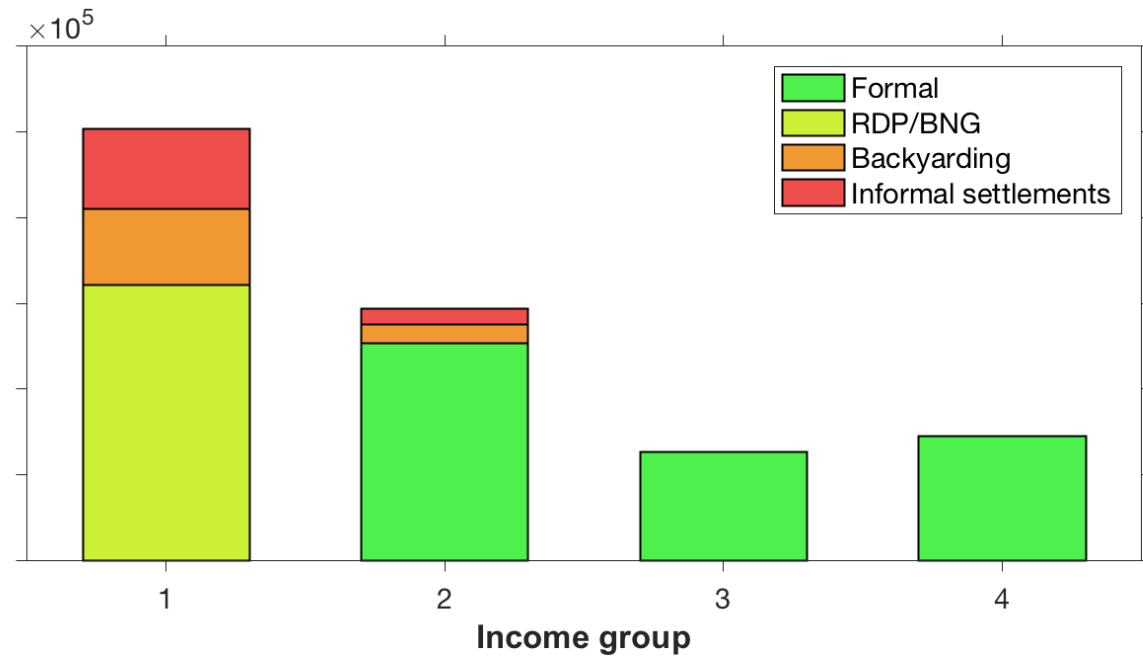
Housing market pools and flows in the model



Housing types by income group

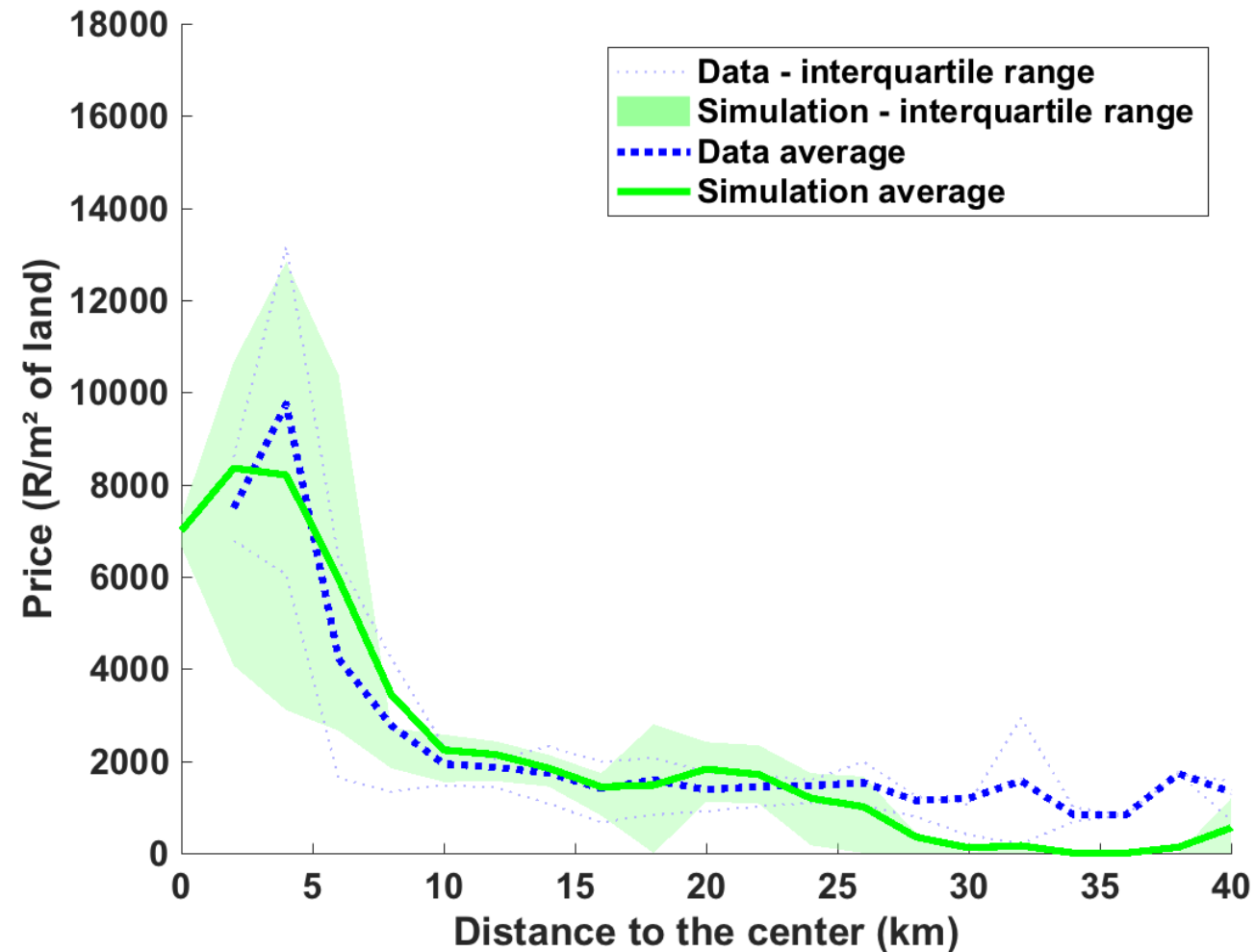


Data (Census 2011)

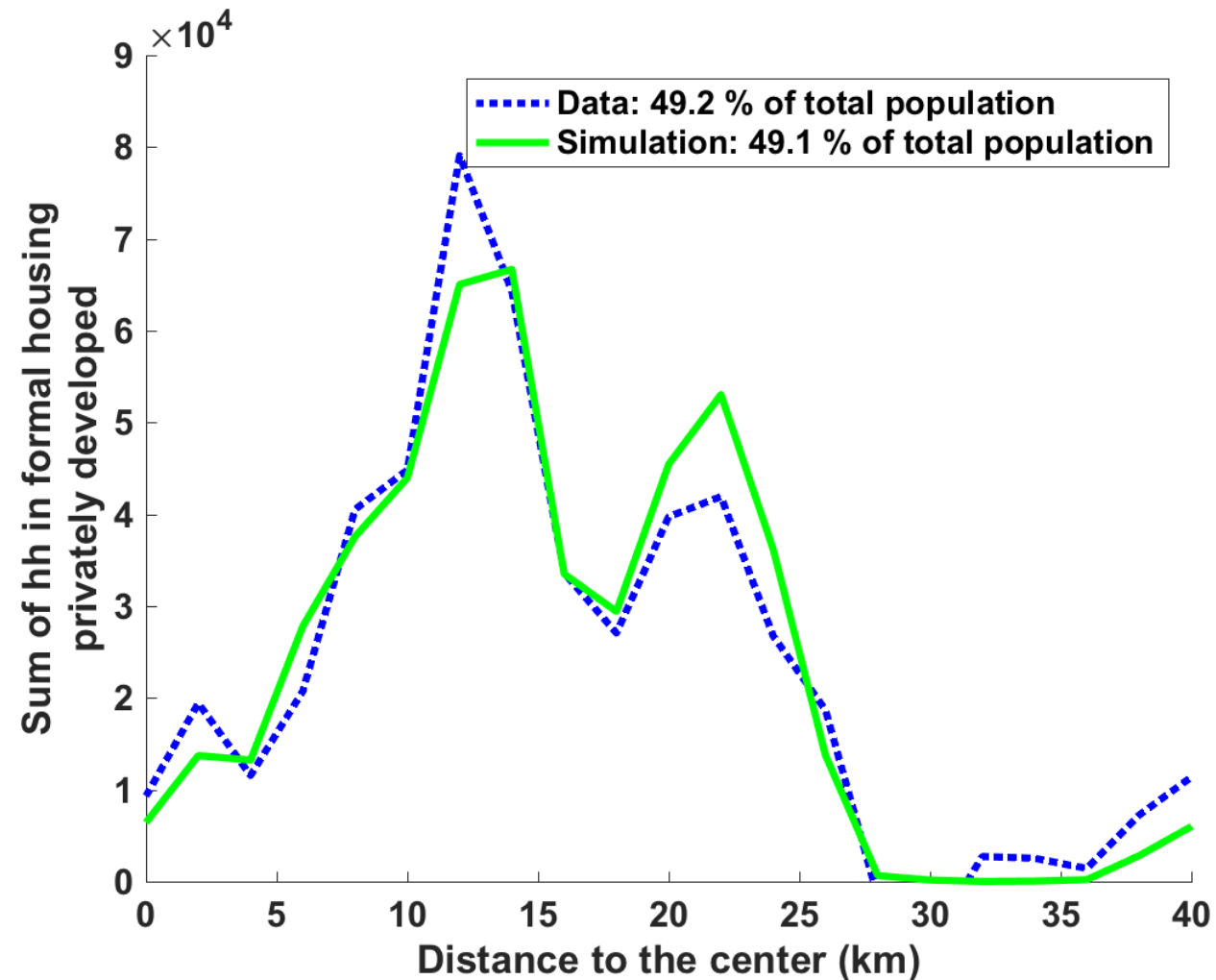


Simulation

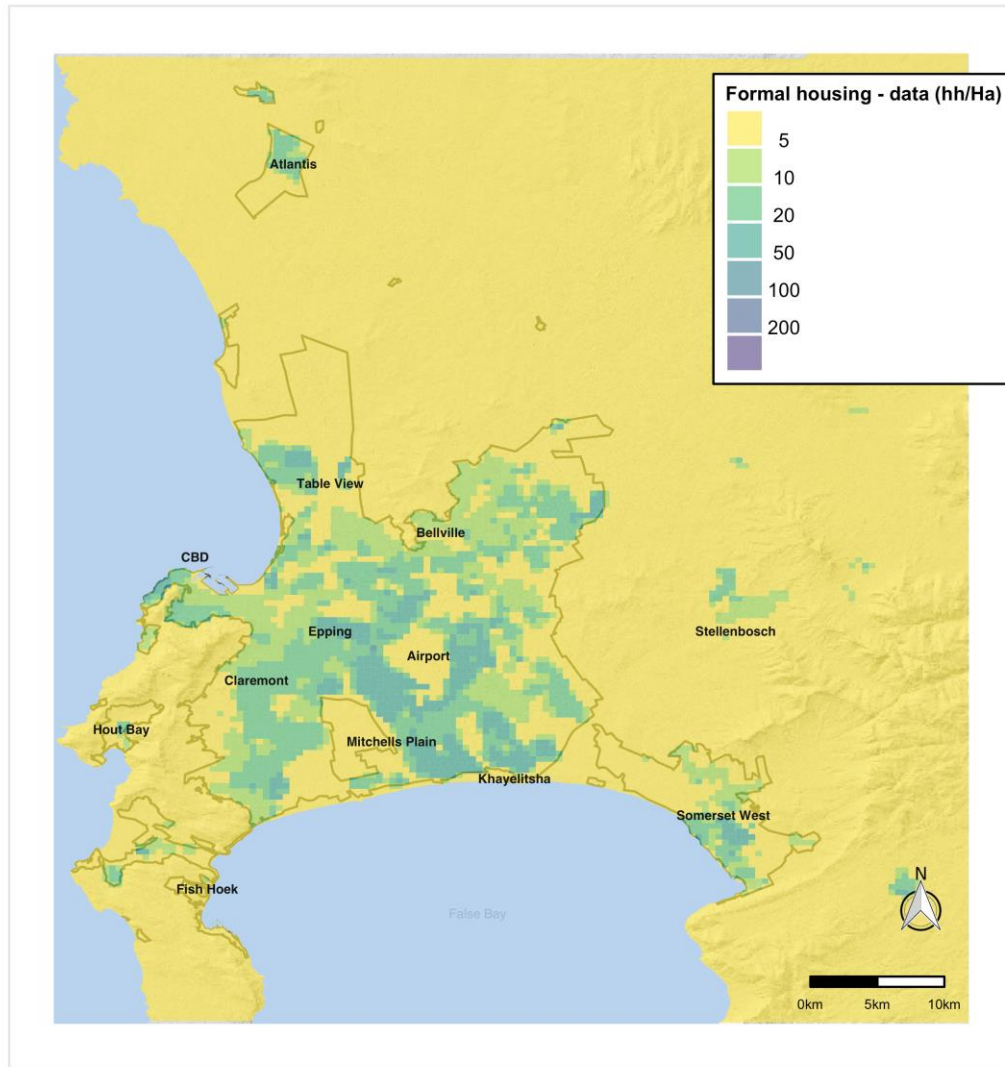
The spatial distribution of formal property prices



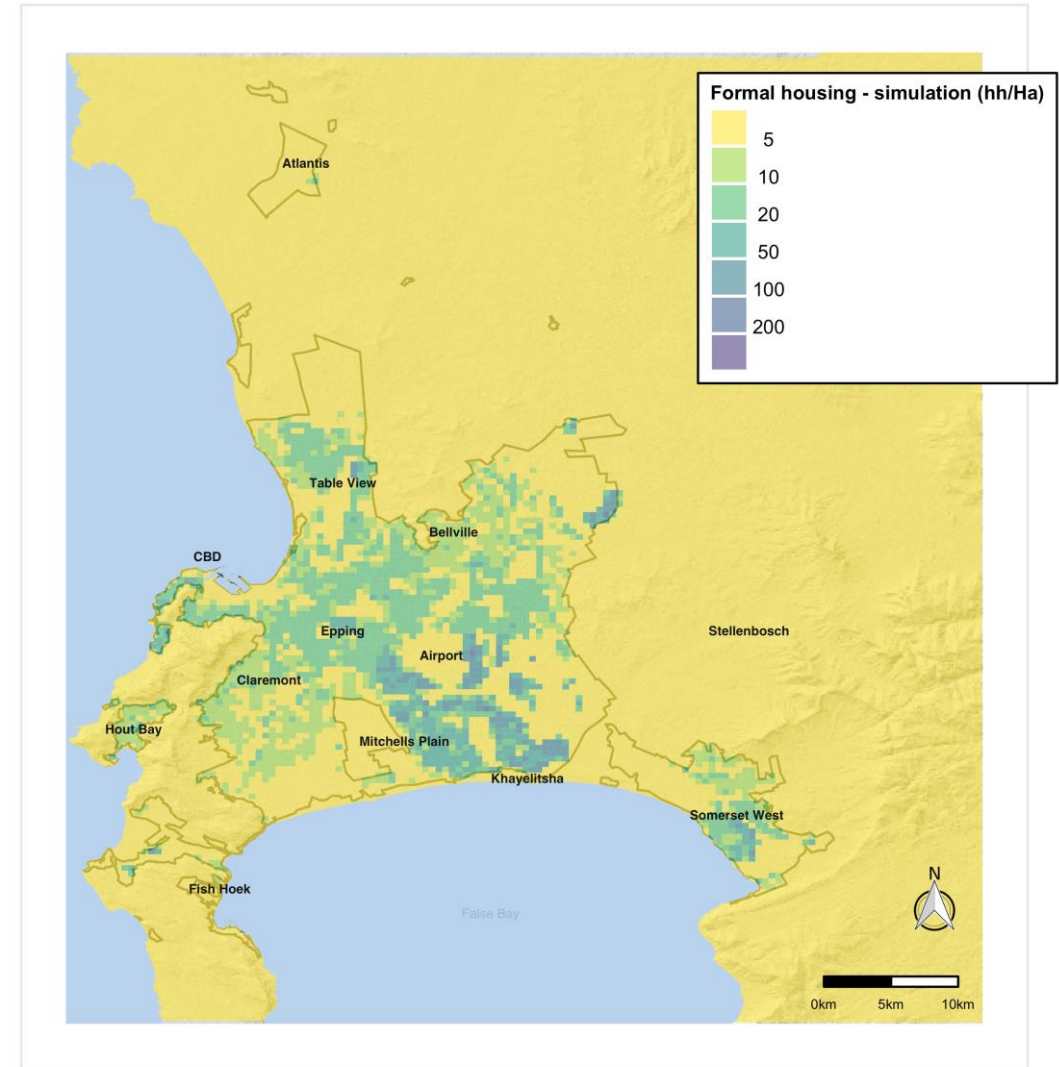
The spatial distribution of population in formal housing



Density of formal housing

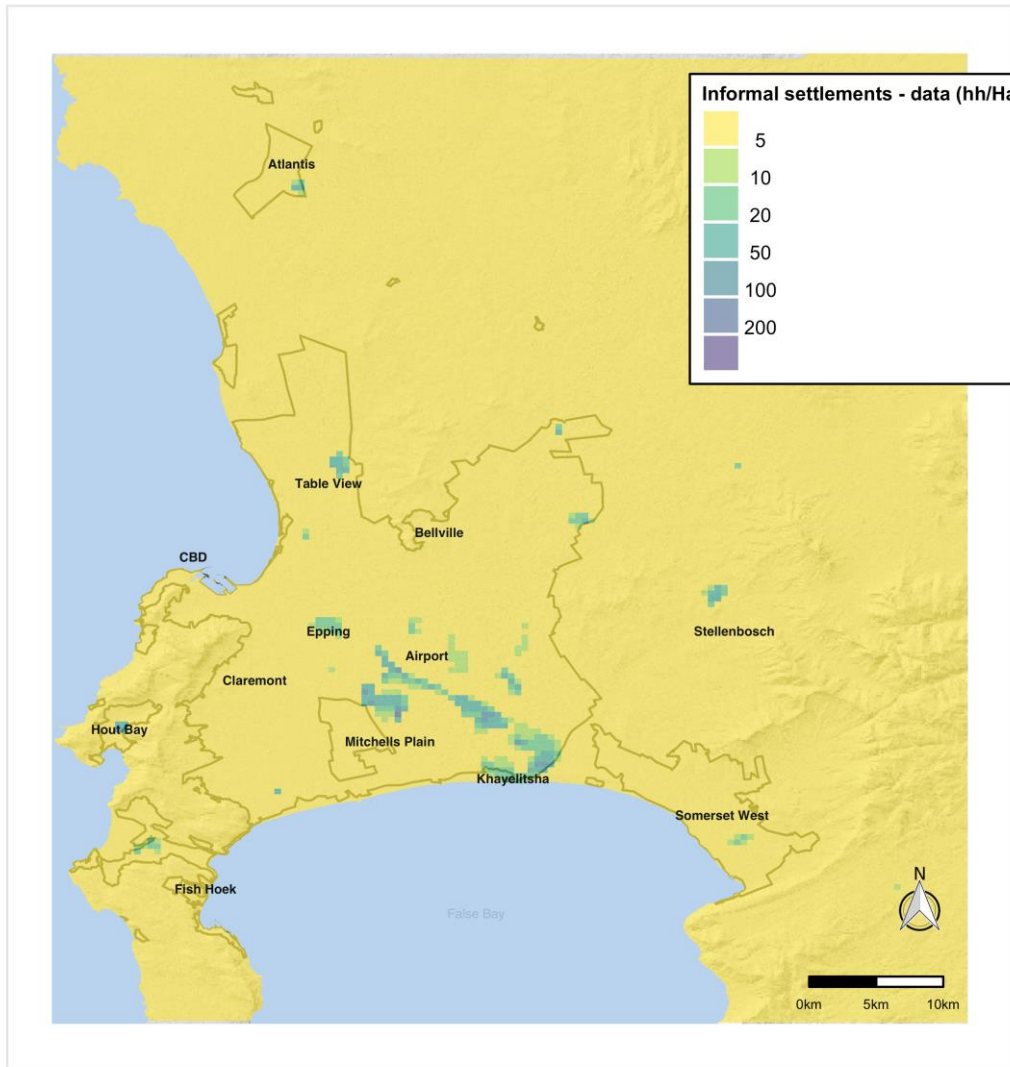


Data (2011)

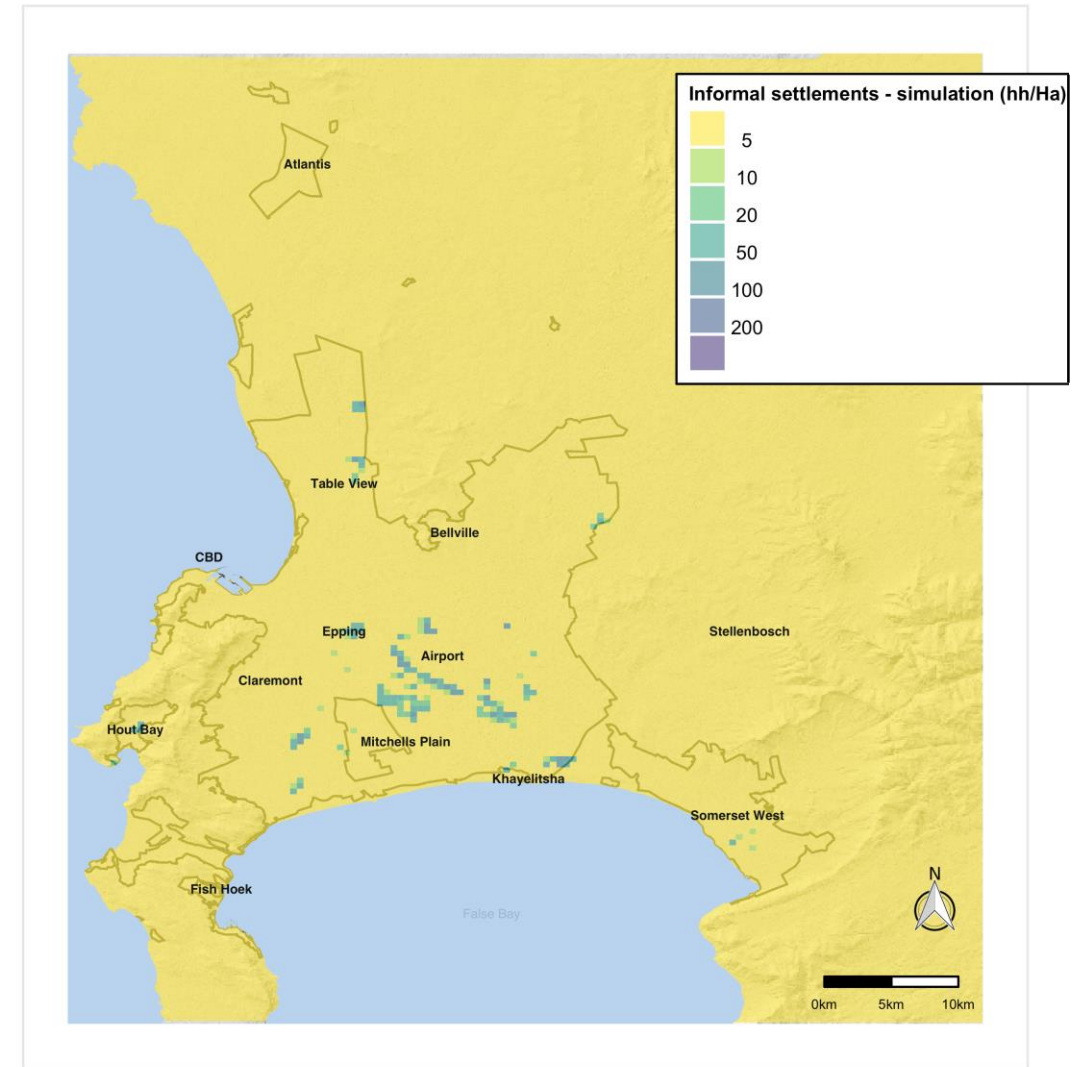


Simulation

Density of informal settlements

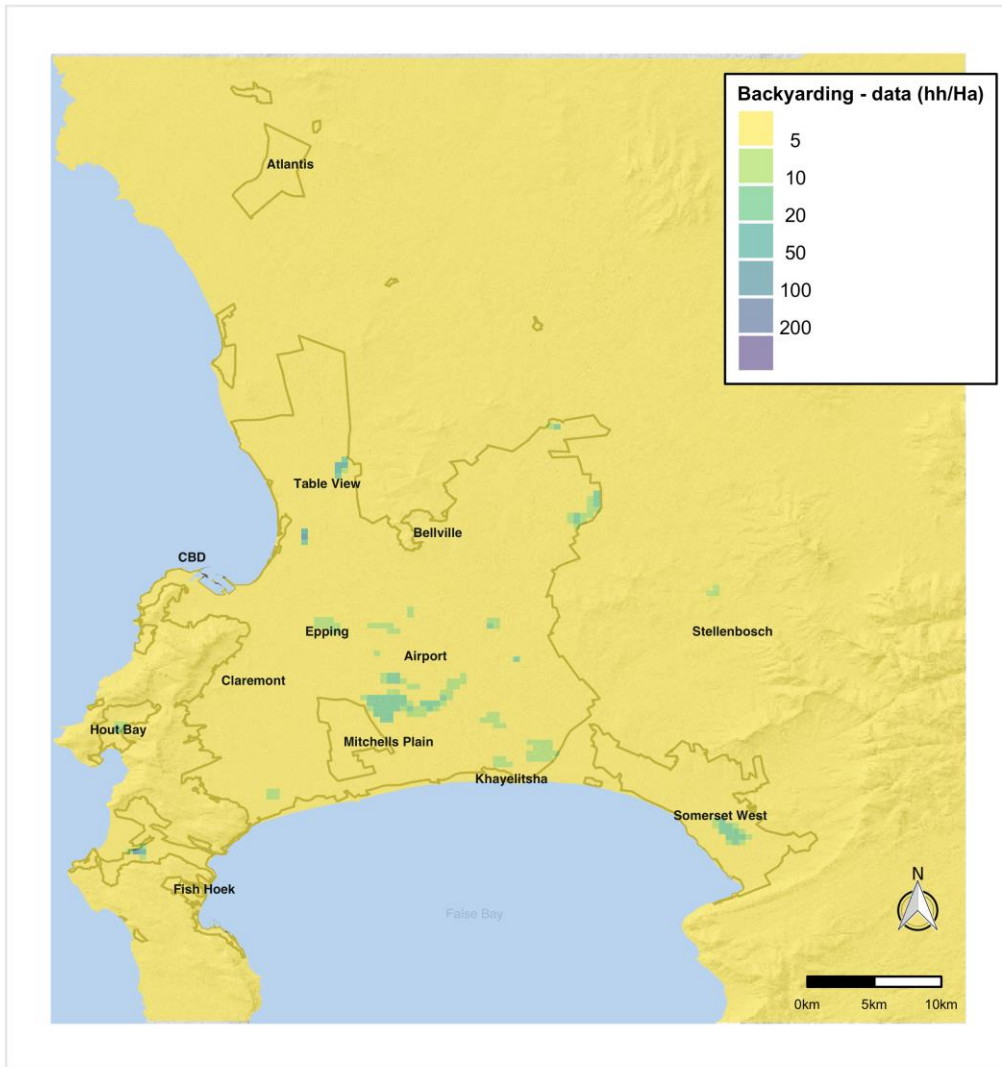


Data (2011)

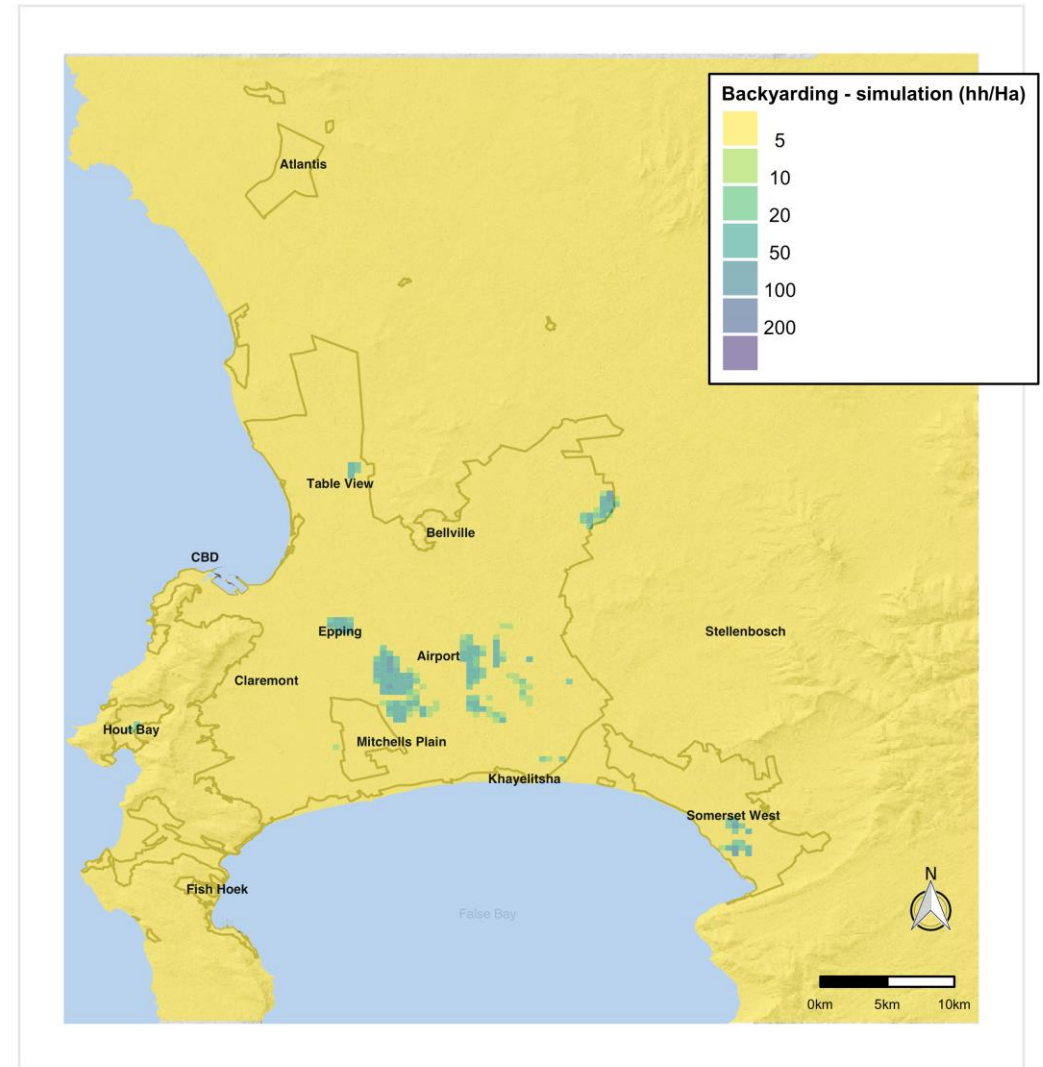


Simulation

Density of backyarding



Data (2011)



Simulation

Example of a policy simulation

We compare two land management scenarios (as proof of concept)

What would be the long-term impact of the Urban Edge that was adopted in 2012 (but no longer binding)?

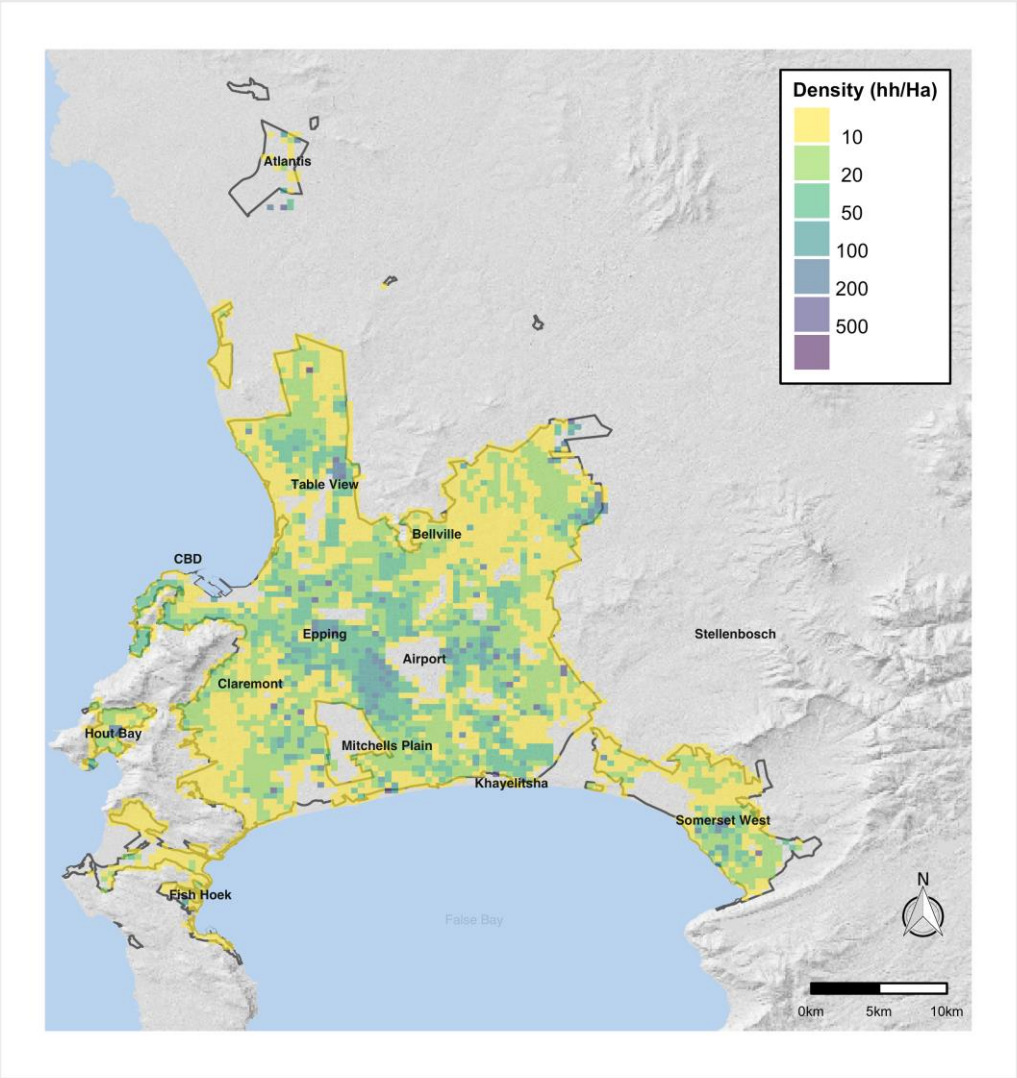
Scenario 1: **Urban edge remains binding**

Scenario 2: **Urban edge is removed in 2018** (see MSDF)

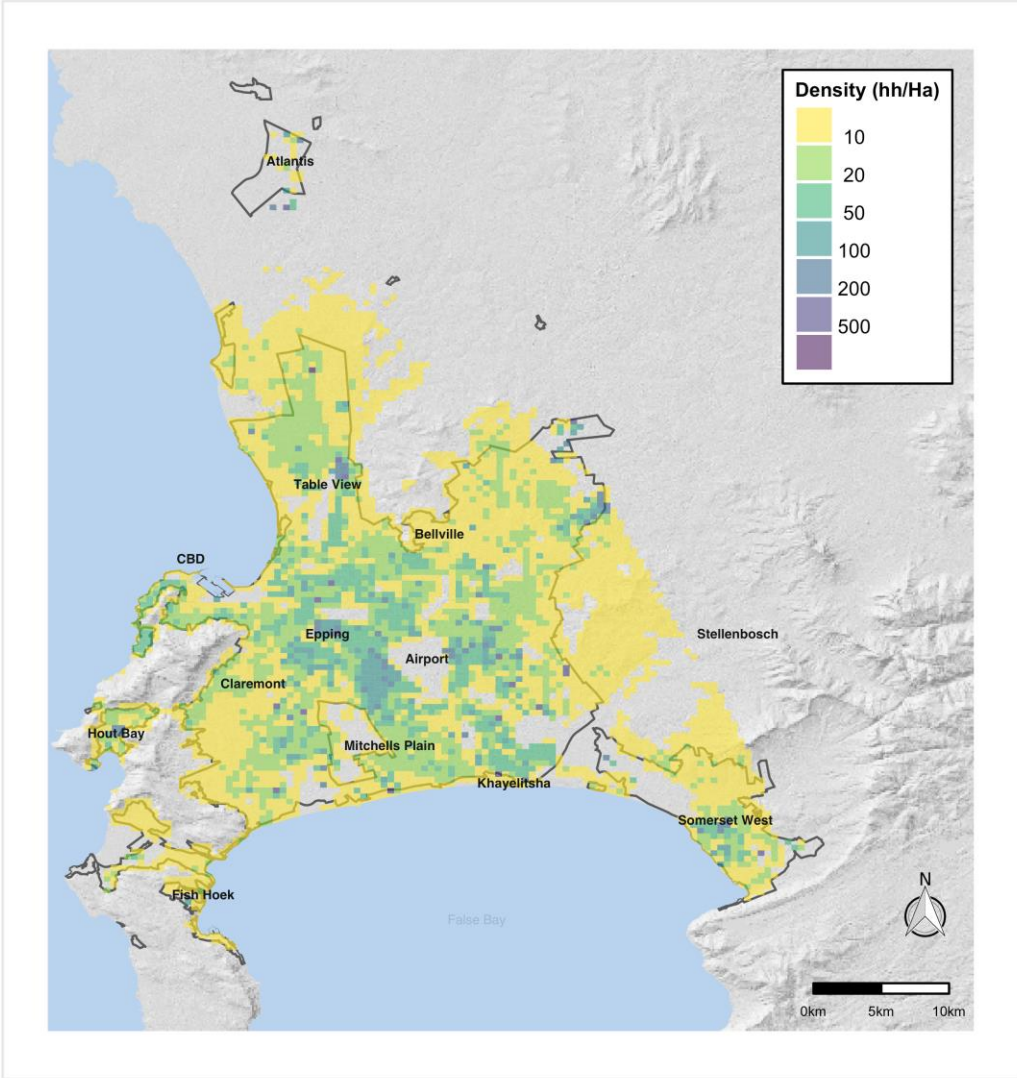
Assess (some) **impacts of the two scenarios in 2040**

Household densities in 2040

The Urban Edge reduces the urban footprint by 20%



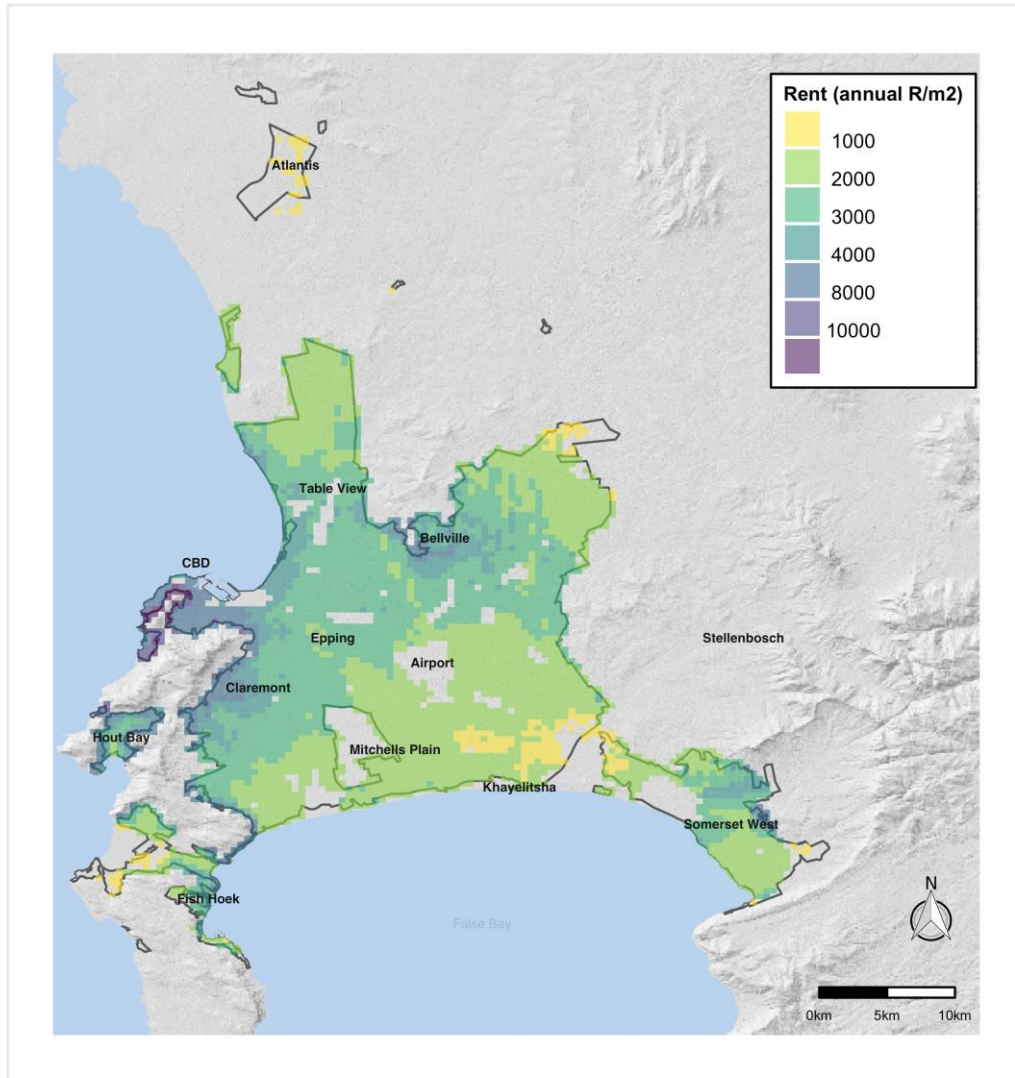
Urban Edge binding



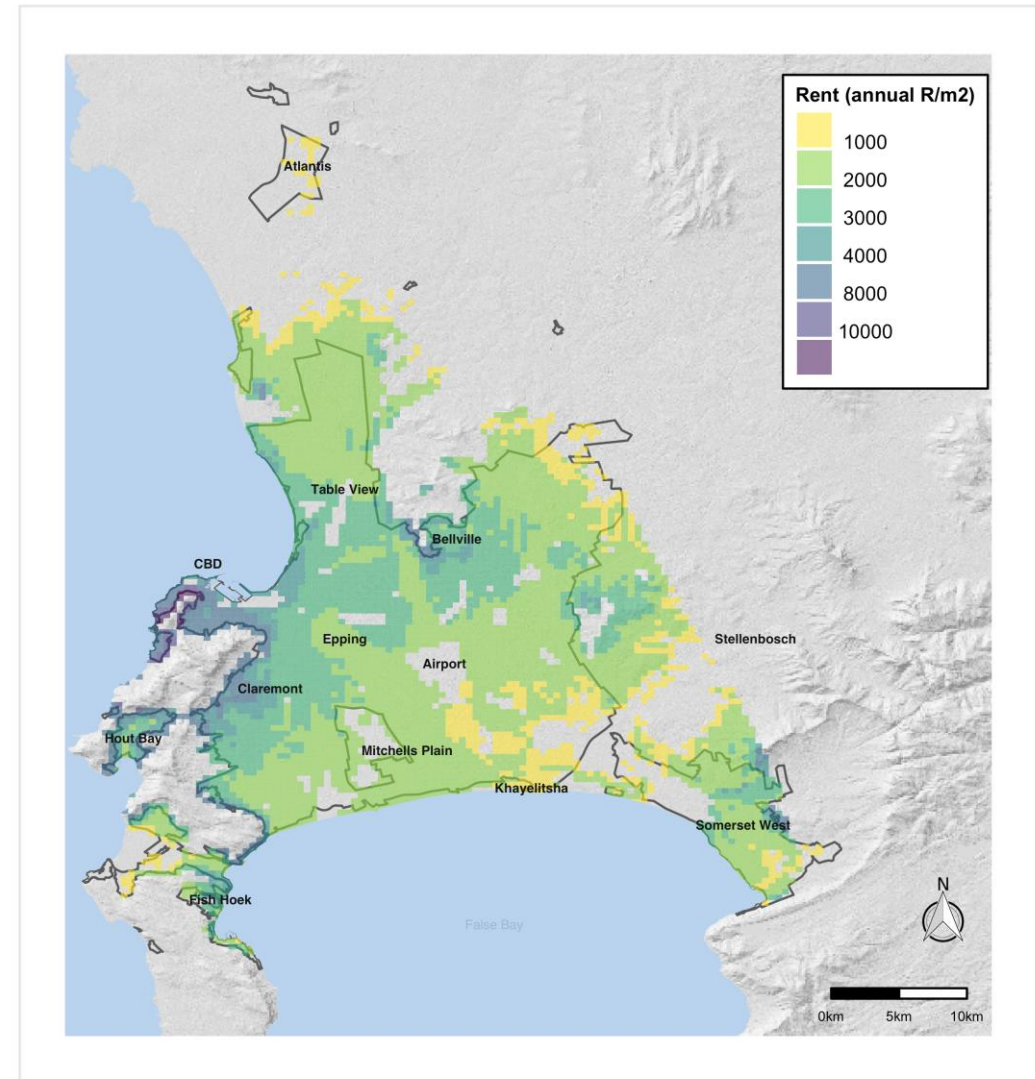
Urban Edge removed in 2018

Rents in 2040

**The Urban Edge increase
CBD rents by 10%**



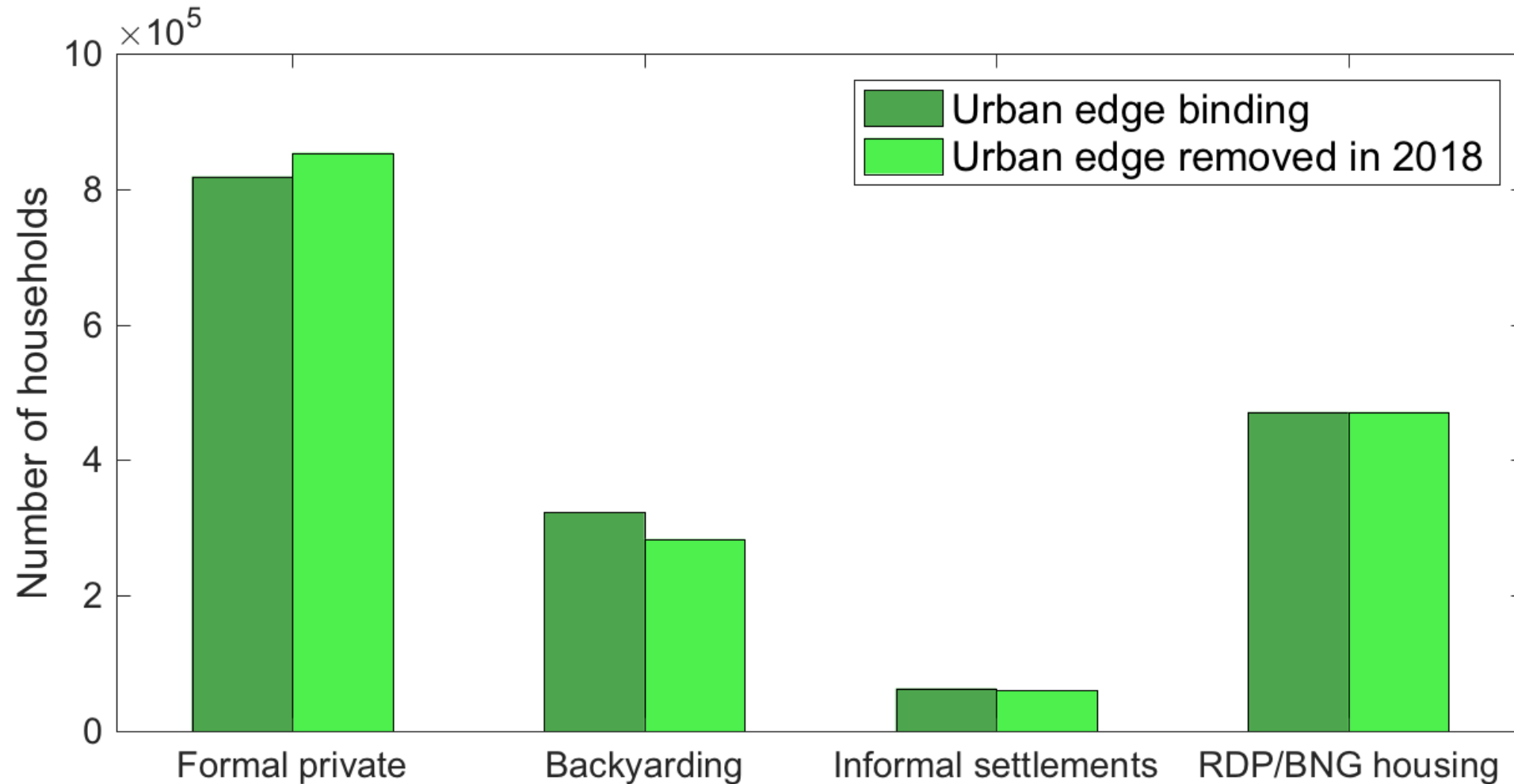
Urban Edge binding



Urban Edge removed in 2018

Housing types in 2040

The Urban Edge increases informal housing by 10% (mainly in backyards)



Conclusion

A city with informal land use “behaves” differently from a fully formal city

Urban planning can (and should) **account for informal land use**

- Informality cannot be overlooked (not a marginal phenomenon)
- Informality interacts with other land uses (systemic perspective)
- Informality changes over time (dynamic perspective)

Models can shed light on **trade-offs** and **unintended consequences** of policies