

**6th ESP Europe
Conference
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When "nature-positive" becomes exclusionary

**Evaluating green gentrification through the
Potential Risk of Gentrification Index (PRG)**

**Juan Pérez Ventura
Complutense University of Madrid**

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1 When "Nature-Positive" becomes exclusionary

THE PROMISE

Environmental improvements
and collective benefits



Nature-based solutions

Parks, green corridors,
renaturation



Climate resilience

Adaptation, cooling,
flood reduction



Ecosystem services

Clean air, wellbeing,
biodiversity

THE RISKS

Urban revalorization and
socio-spatial pressures



Increase in land and housing values

Rising prices and
investment pressures



Selective accesibility

Environmental improvements
concentrated in privileged areas



Commercial and functional displacement

Loss of local businesses and
everyday services

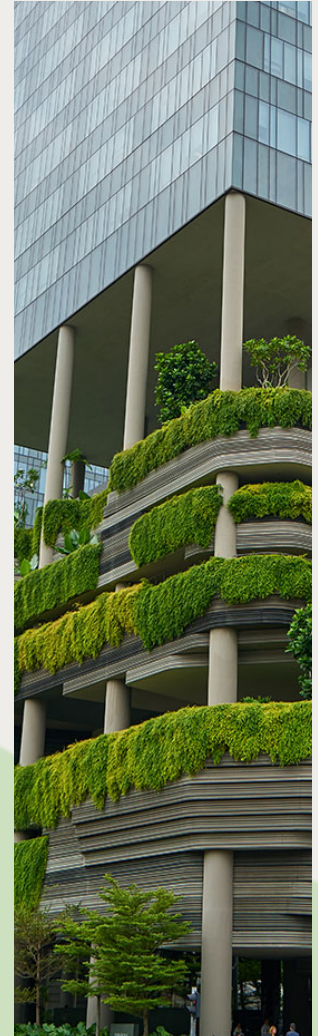


Displacement pressures

Direct and indirect
exclusion of residents

Urban sustainability
is not socially neutral

Environmental transition
without social justice
can **reinforce socio-spatial
inequalities**



2 Ecosystem Services and Urban Inequality

ECOSYSTEM SERVICES

Urban greening generates multiple benefits



Climate regulation

Cooling, shade



Air quality improvement

Cleaner air



Stormwater management

Flood mitigation



Health & well-being

Physical and mental health



Biodiversity & recreation

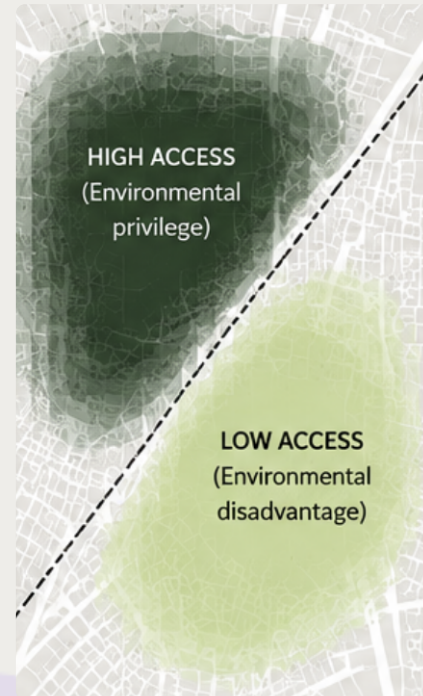
Nature access, leisure

BUT ACCESS
IS UNEQUAL



ACCESS IS SOCIALLY AND SPATIALLY UNEVEN

Benefits are captured by some, while others are left behind



Who benefits?

- Higher-income groups
- New residents
- Rising property values

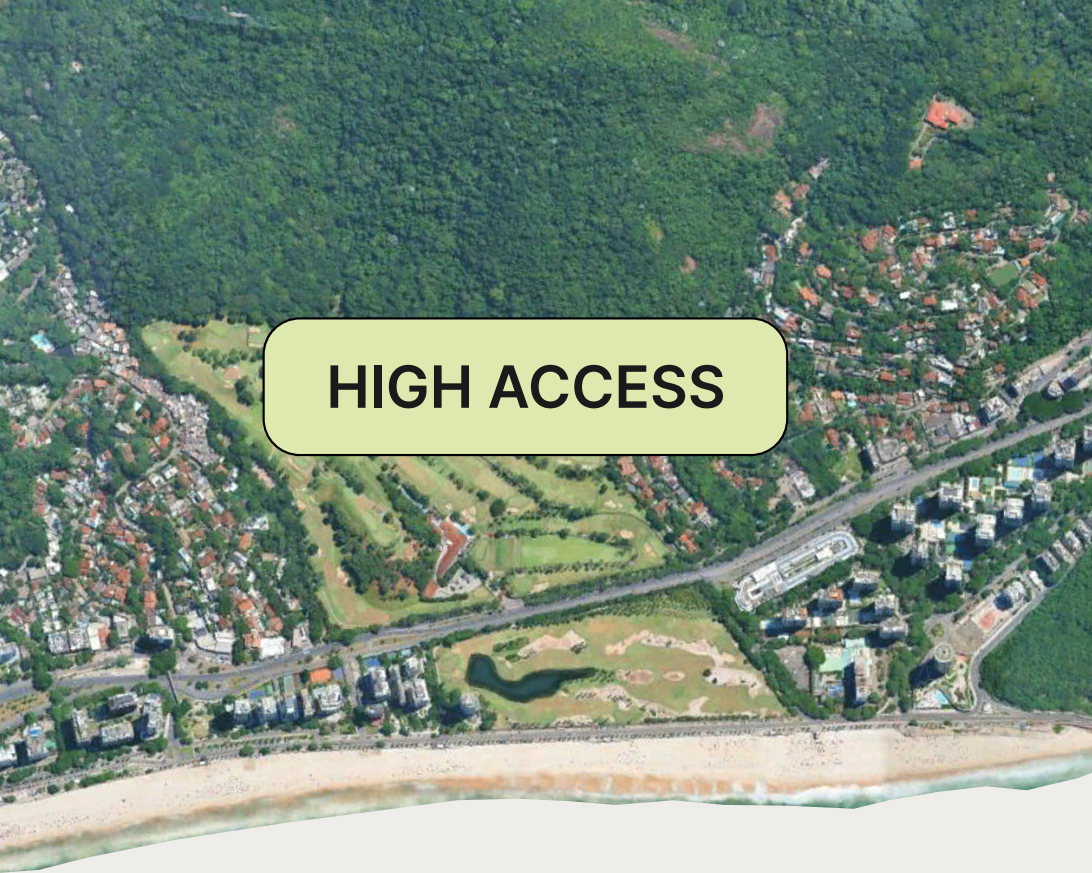


Who is left behind?

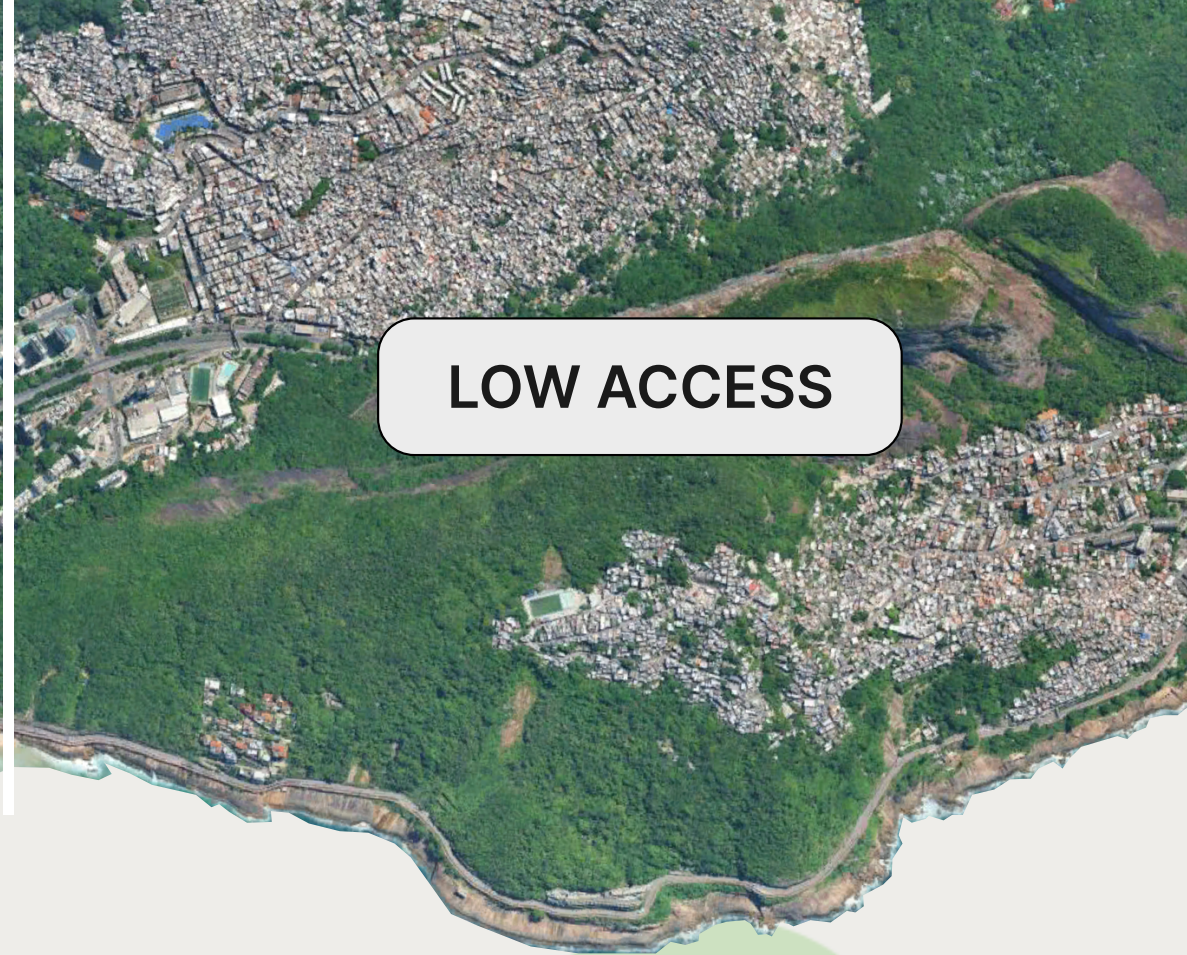
- Low income residents
- Limited access to green spaces
- Higher exposure to environmental risks



**Access to ES is socially
and spatially uneven**



HIGH ACCESS



LOW ACCESS

HIGH ACCESS

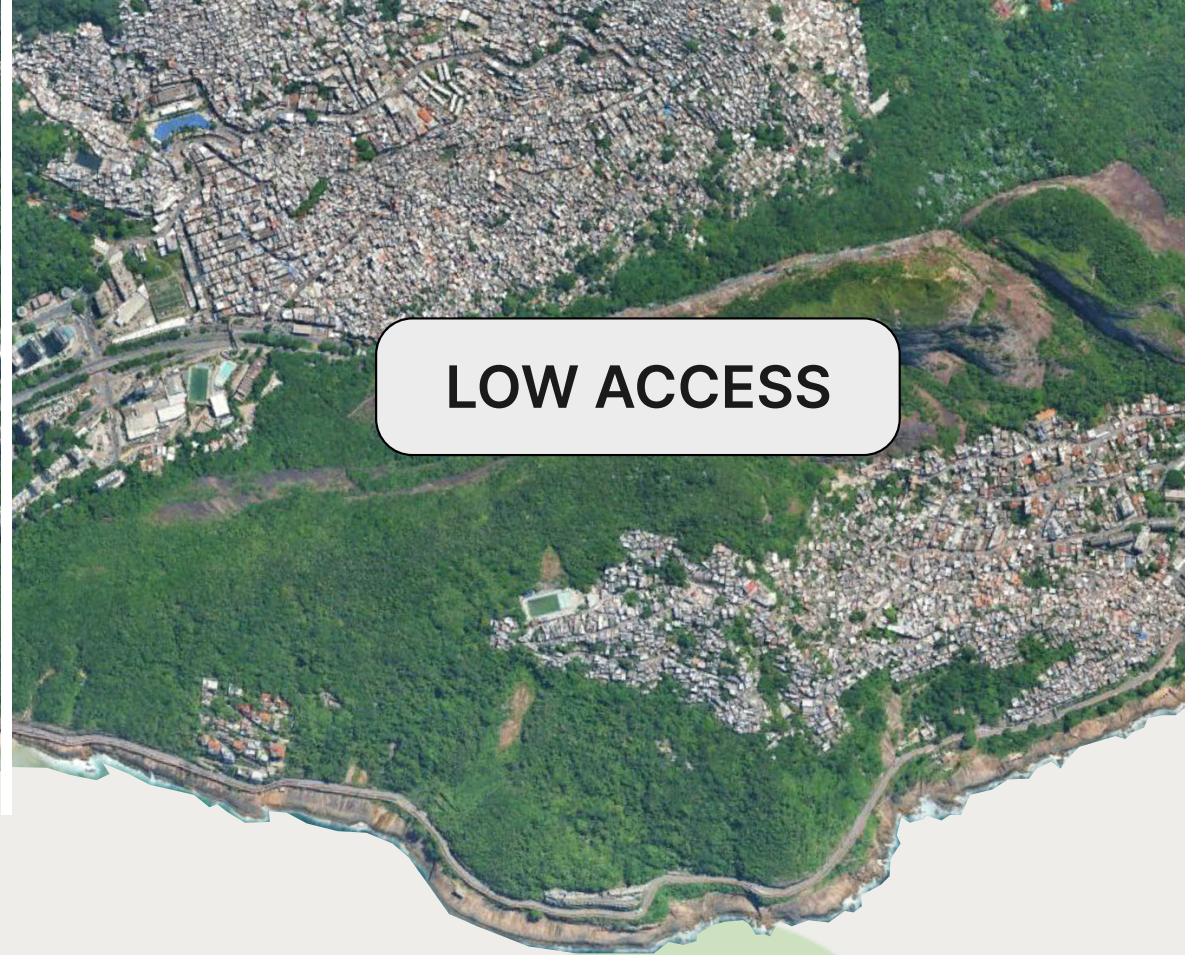


LOW ACCESS

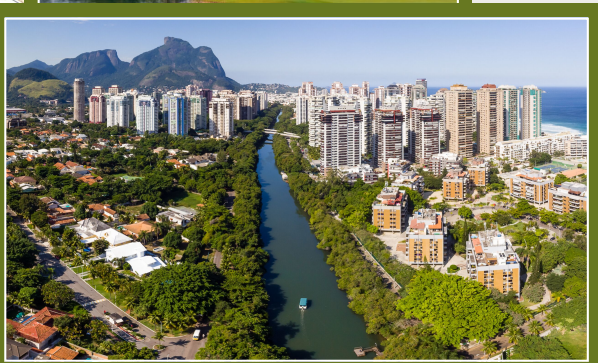
HIGH ACCESS



LOW ACCESS



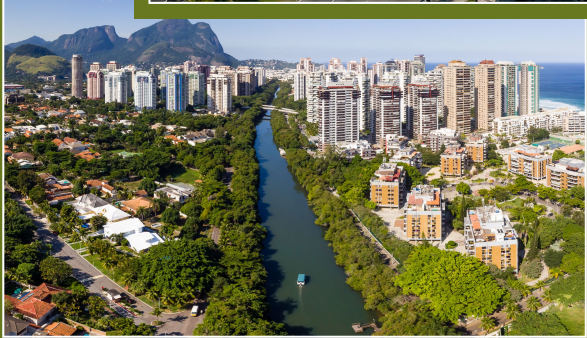
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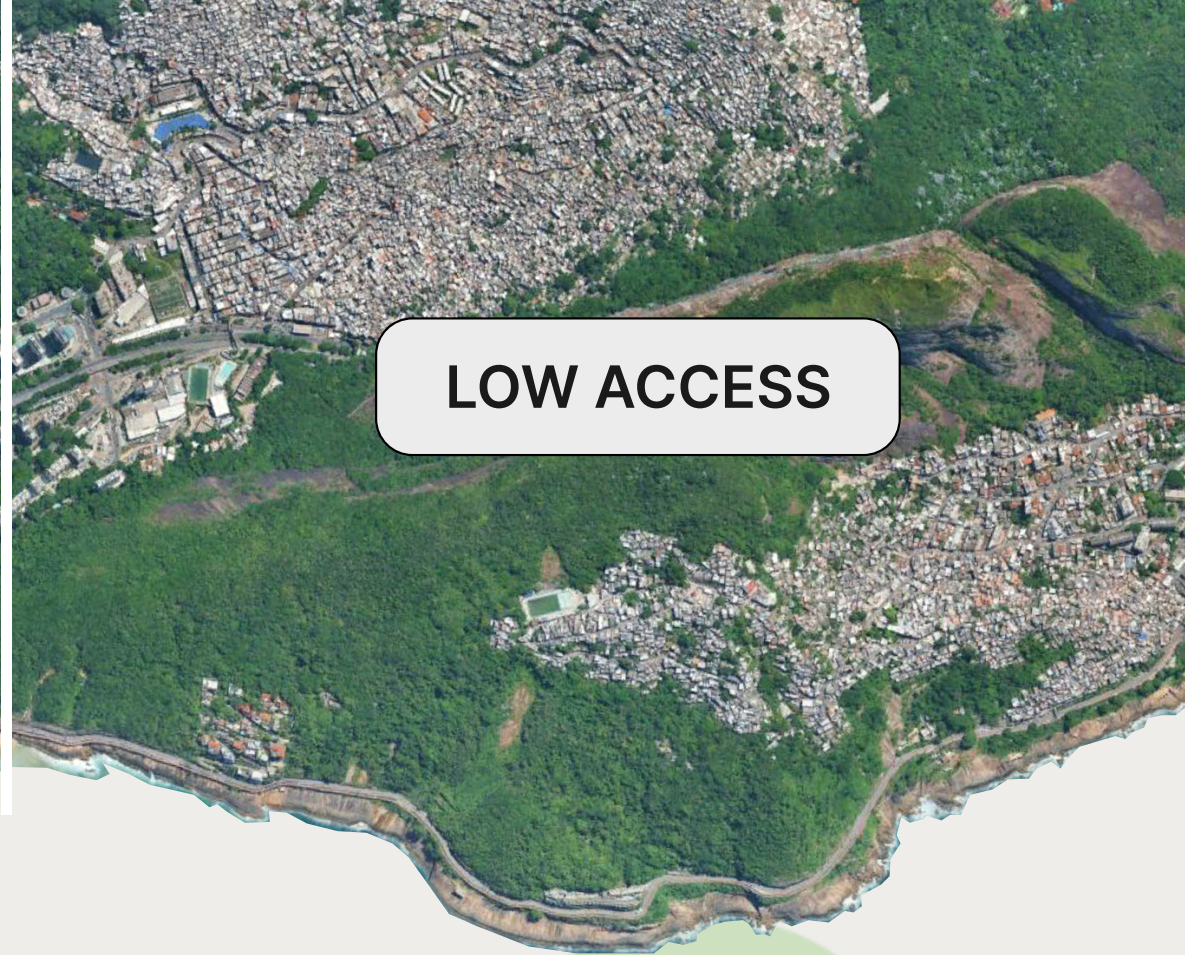
LOW ACCESS



HIGH ACCESS



LOW ACCESS



HIGH ACCESS



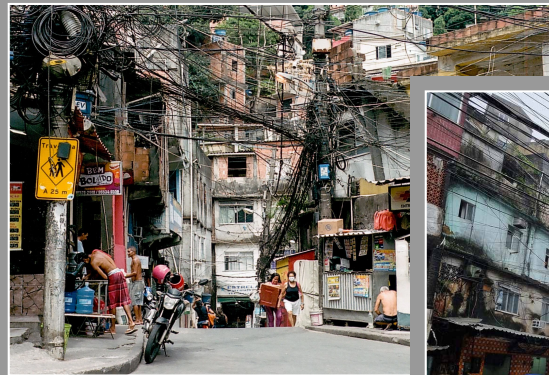
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HIGH ACCESS



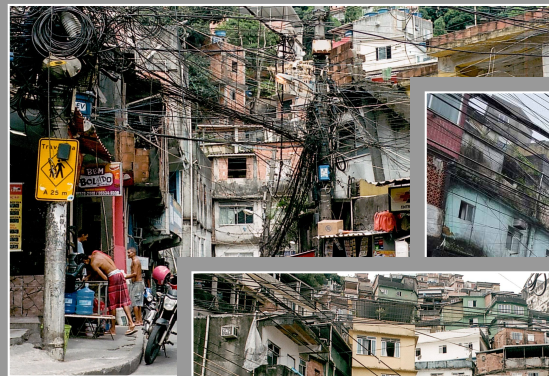
LOW ACCESS



HIGH ACCESS



LOW ACCESS



3 A Missing Tool: anticipating Gentrification Risk



WHAT URBAN RESEARCH ALREADY DOES WELL

- Explains displacement dynamics
- Identifies rent increases
- Documents socio-spatial exclusion
- Analyses post-facto transformations
- Rich literature on green gentrification

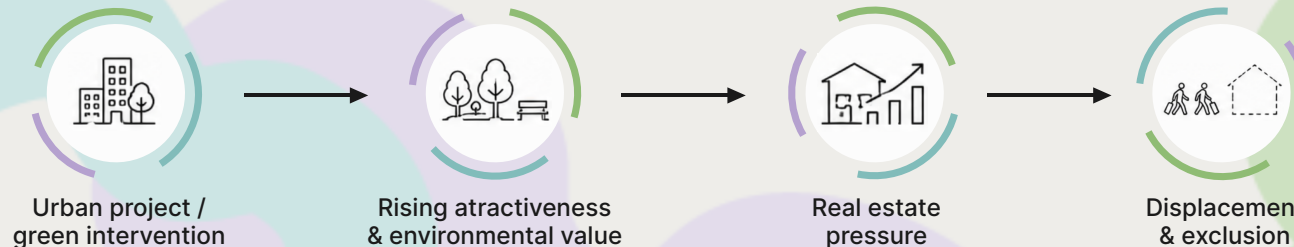
***Excellent at diagnosis,
weaker at anticipation.***



WHAT IS STILL MISSING

- Early-warning tools
- Comparative risk measurement
- Operational indicators
- Preventive urban assessment
- Tools usable *before* displacement occurs

**HOW CAN WE IDENTIFY RISK
BEFORE EXCLUSION CONSOLIDATES?**



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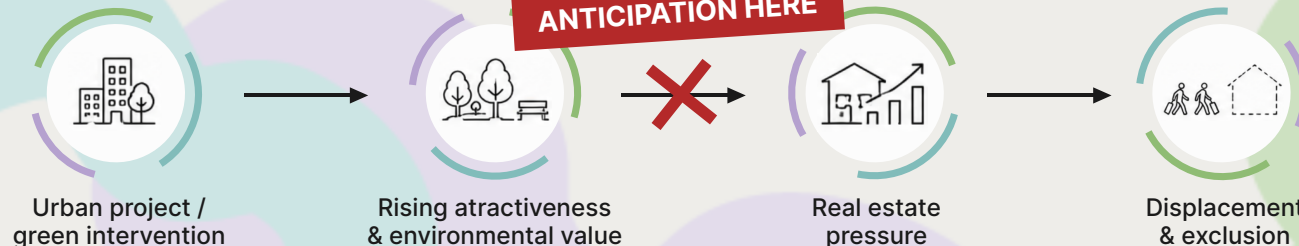
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**HOW CAN WE IDENTIFY RISK
BEFORE EXCLUSION CONSOLIDATES?**

If sustainability
projects can trigger
exclusion, we need **tools**
capable of measuring
gentrification risk in
advance



**NEED FOR
ANTICIPATION HERE**



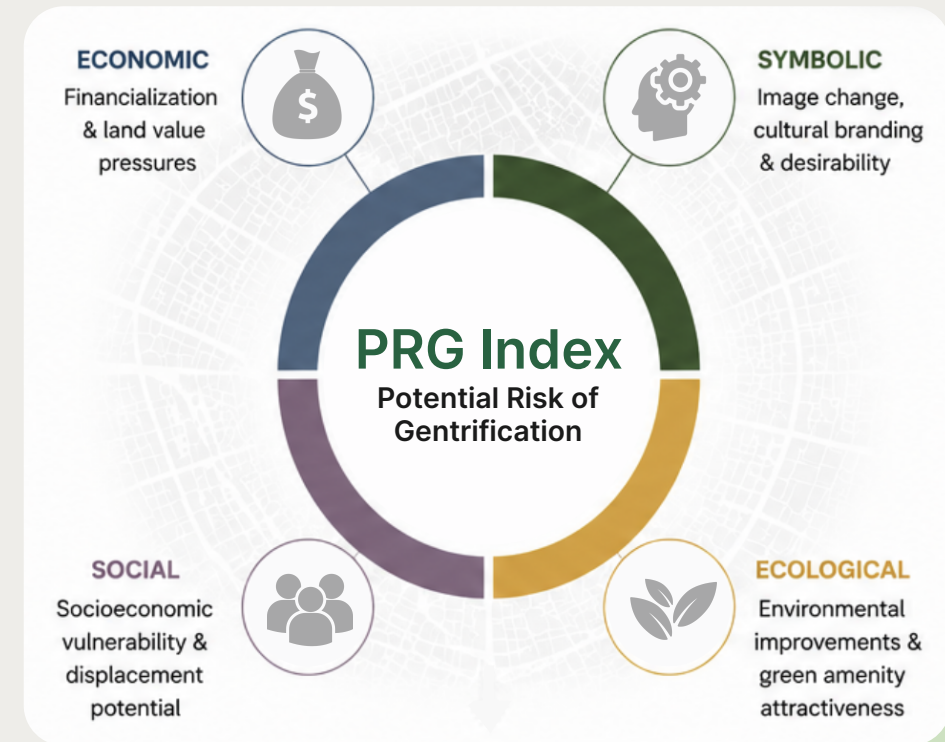
4 Introducing the PRG Index

The PRG Index (Potential Risk of Gentrification) is an analytical tool that measures the structural risk that urban projects may trigger gentrification processes. In other words, it measures the likelihood that an intervention will lead to:

- land value escalation
- inflow of higher-income residents
- commercial and functional shift
- indirect or direct displacement

WHY IS IT USEFUL?

- ✓ Provides early-warning signals
- ✓ Supports more just & inclusive urban planning
- ✓ Enables comparison across cities and projects
- ✓ Helps integrate social justice into sustainability strategies



5 How the PRG works

each dimension
has a different
weight in the PRG

 40%

 20%

 25%

 15%

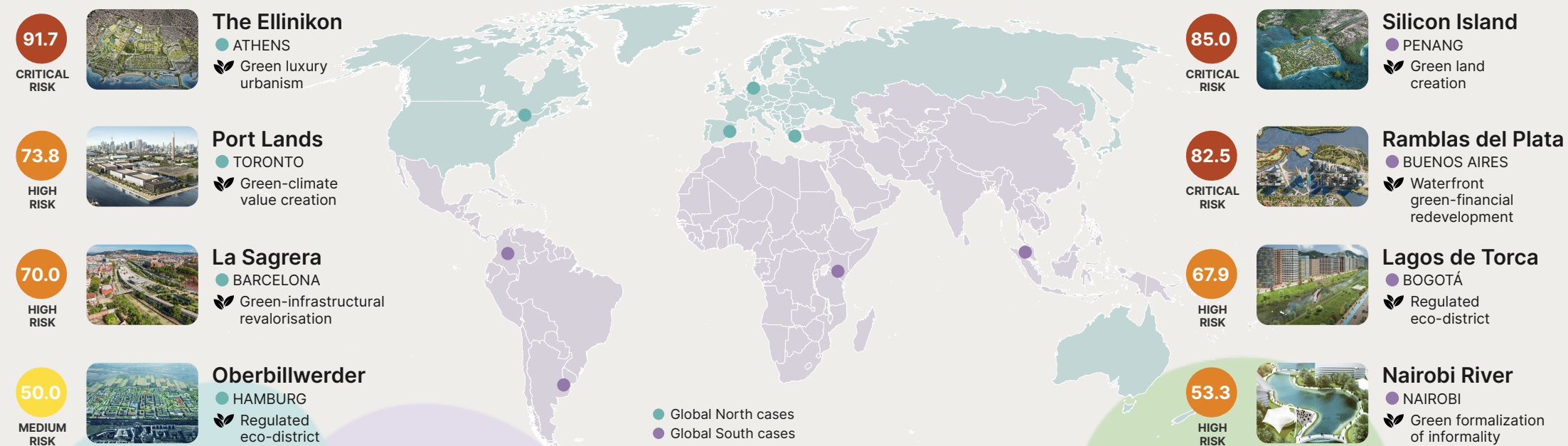
4 DIMENSIONS	16 VARIABLES	SCORE	MEAN	WEIGHT	CONVERSION TO 0-100	INTERPRETATION
Economic / Financialization	 V1 V2 V3 V4	0-3 0-3 0-3 0-3	$\Sigma / 4$	$\times 0.4$	$\Sigma = 0-3 \longrightarrow 0-100$	76-100 CRITICAL Risk 51-75 HIGH Risk 26-50 MEDIUM Risk 0-25 LOW Risk
Symbolic / Cultural	 V5 V6 V7 V8	0-3 0-3 0-3 0-3	$\Sigma / 4$	$\times 0.25$		
Social / Community	 V9 V10 V11 V12	0-3 0-3 0-3 0-3	$\Sigma / 4$	$\times 0.2$		
Ecological / Green	 V13 V14 V15 V16	0-3 0-3 0-3 0-3	$\Sigma / 4$	$\times 0.15$		



5 How the PRG works

DIMENSION	WEIGHT	VARIABLES	WHAT IT CAPTURES
 Economic / Financialization	40%	V1 Projected increase in housing or rental prices V2 Presence of financial capital or large developers V3 Fiscal incentives, public land transfers or value capture V4 Residential production oriented towards middle-high or high-income groups	Land value, housing prices, real estate pressure, large developers, external capital and market-oriented residential production.
 Symbolic / Cultural	25%	V5 Discourses of authenticity or creativity in urban marketing V6 Touristification associated with the project V7 Aestheticization of public and commercial space V8 Heritage branding or cultural branding of the area	Urban branding, aestheticization, tourism narratives, cultural visibility and symbolic production of place.
 Social / Community	20%	V9 Affordable or social housing included in the project V10 Level of community participation in planning V11 Recognized active community resistance V12 Estimated impact on local social networks and proximity commerce	Residential vulnerability, affordable housing, community participation, local networks, displacement risk and social safeguards.
 Ecological / Green	15%	V13 New green space created V14 Sustainable mobility infrastructure V15 Environmental certification or green marketing V16 Potential for climate gentrification	Green infrastructure, environmental upgrading, sustainable mobility, climate adaptation, green certifications and environmental attractiveness.

6 Applying the PRG Index across green urban projects in progress



The PRG Index can capture how urban greening interacts with land value, capital, governance and social safeguards to generate risk.

**NOT JUST HOW GREEN,
BUT WHO BENEFITS**

Scores reflect structural risk conditions before displacement is fully consolidated.

76-100 **CRITICAL** Risk
51-75 **HIGH** Risk

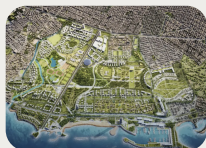
26-50 **MEDIUM** Risk
0-25 **LOW** Risk

7 Patterns in the Global North

In the Global North, green gentrification risk is often produced through luxury urbanism, climate adaptation, new metropolitan centralities and green premiums. Public regulation and housing safeguards matter, but they are not enough when green amenities become tightly linked to strategic land, private value capture or new urban centralities.

Green luxury urbanism

91.7
CRITICAL
RISK



- ATHENS - The Ellinikon
 - Metropolitan park + waterfront branding + smart-city discourse
 - Luxury-financial redevelopment on strategic coastal land
 - Weak affordable-housing provision; indirect exclusion and pressure on the wider Athens Riviera

70.0
HIGH
RISK



Green-infrastructural revalorization

- BARCELONA - La Sagrera
 - Intermodal station + rail coverage + 36-40 ha linear park
 - 5,540 protected/dotational homes significantly mitigate risk
 - New metropolitan centrality may rise land values and pressure surrounding neighbourhoods

Green-climate value creation

73.8
HIGH
RISK



- TORONTO - Port Lands
 - Flood protection and river renaturalization unlock developable waterfront land
 - Strong public investment and affordable-housing commitments exist
 - Risk remains because climate infrastructure creates a new high-value green-blue centrality

50.0
MEDIUM
RISK



Regulated eco-district

- HAMBURG - Oberbillwerder
 - Eco-district led by IBA Hamburg and the City of Hamburg
 - Strong safeguards: Hamburger Drittmix and subsidized housing
 - Green quality still creates a potential residential premium and residual revalorization risk

8 Patterns in the Global South

In the Global South, risk often emerges before classic real-estate gentrification: through land creation, regulatory capture, livelihood displacement and the environmental formalization of vulnerable territories.

Green land creation

85.0

CRITICAL
RISK



- PENANG - Silicon Island
- New coastal land creation
- Low-carbon + smart-city branding
- Fishing livelihoods and coastal access affected

Regulated eco-district

67.9

HIGH
RISK



- BOGOTÁ - Lagos de Torca
- 1,800 ha + 135,000 homes
- 40% VIS/VIP mitigates risk
- New green centrality and land valorization

Waterfront green-financial redevelopment

82.5

CRITICAL
RISK



- BUENOS AIRES - Ramblas del Plata
- Public park + river access
- Regulatory land-value capture
- No binding affordable-housing safeguards

Green formalization of informality

53.3

HIGH
RISK



- NAIROBI - Nairobi River
- River restoration + corridor clearing
- Demolitions and weak resettlement guarantees
- Risk appears before consolidated real-estate capture

9 Comparative insights

Across the eight cases, the PRG shows that green gentrification is not a single process. It reveals different pathways through which environmental improvement becomes attached to land value, governance, vulnerability and exclusion,



Not one process

- Green gentrification is a family of risk architectures
- Luxury urbanism, climate adaptation, green infrastructure, land reclamation and formalization can all produce risk



Relational North-South comparison

- The comparison is not hierarchical: the North is not automatically safer, and the South is not simply more risky
- The key difference is how risk is produced



Same risk, different mechanism

- Similar PRG scores do not mean identical pathways
- Silicon Island and Ramblas del Plata are both critical, but through different logics: land creation vs. waterfront value capture



Safeguards matter - but are not enough

- Affordable housing, public regulation and participation can reduce risk
- They only work when they are binding, proportional and embedded from the start

The PRG moves the analysis from ranking to explanation: not only how risky a project is, but why it becomes risky.



10 Conclusion: Sustainability and Justice

• WHAT OUR COMPARATIVE ANALYSIS SHOWS

1 NATURE CREATES VALUE

All projects deliver real environmental benefits and improve urban liveability

2 VALUE IS CAPTURED UNEQUALLY

When land, capital and branding dominate, benefits become privileges and exclusion deepens

3 RISK APPEARS BEFORE DISPLACEMENT

The PRG helps detect structural risk conditions while interventions are still in progress

4 SAFEGUARDS MAKE A DIFFERENCE

Affordable housing, strong governance, participation anti-displacement policies reduce (but do not eliminate) gentrification risk

• THE PRG FRAMEWORK ADDS VALUE



Nature-positive must be people-positive

The challenge is not only to green cities, but to ensure that the transition is just for all

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**Thank you
for your attention**