Inclusive, safe, sustainable and resilient cities in a time of climate change.

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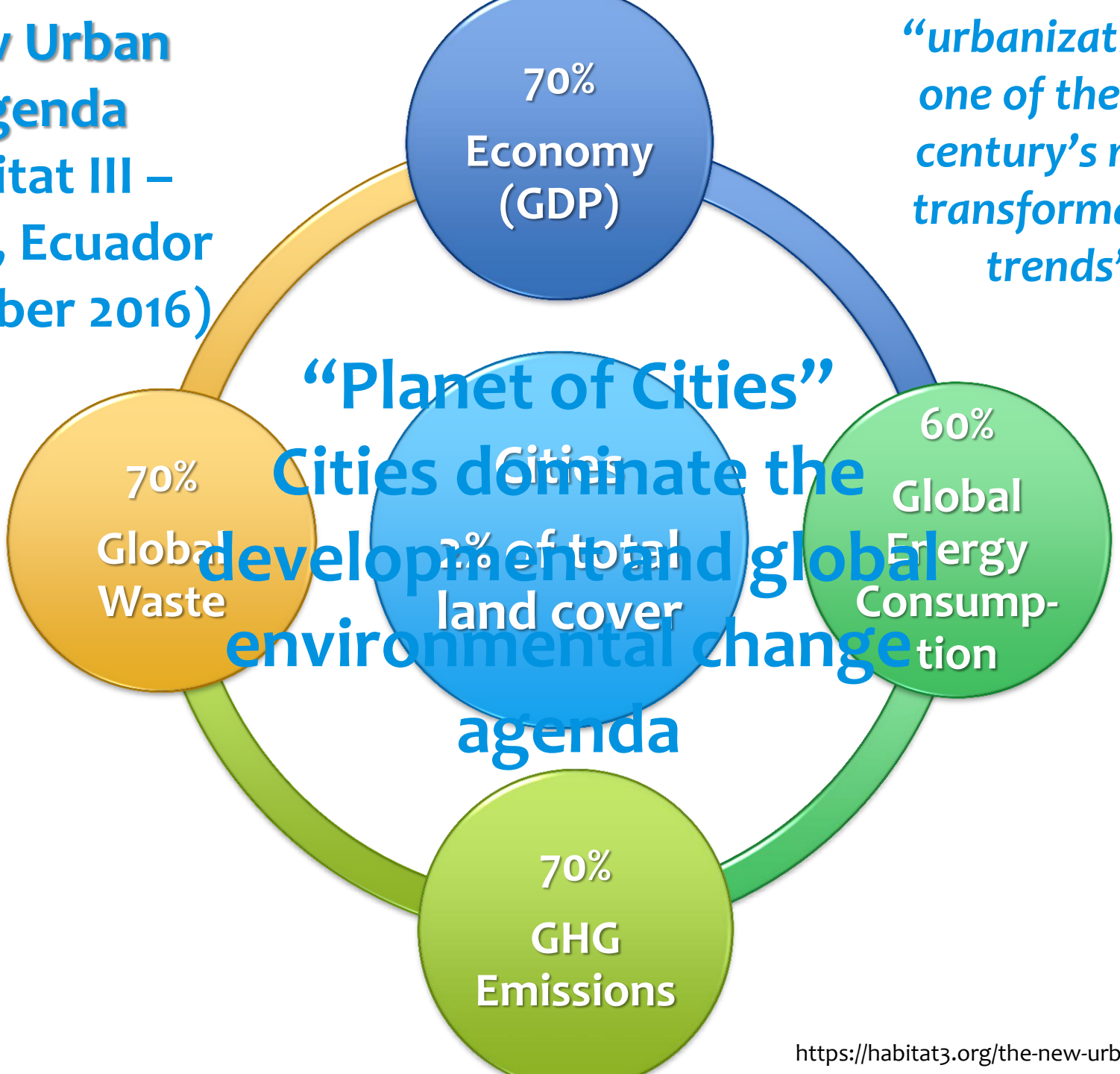
New Urban Agenda
Habitat III – Quito, Ecuador (October 2016)

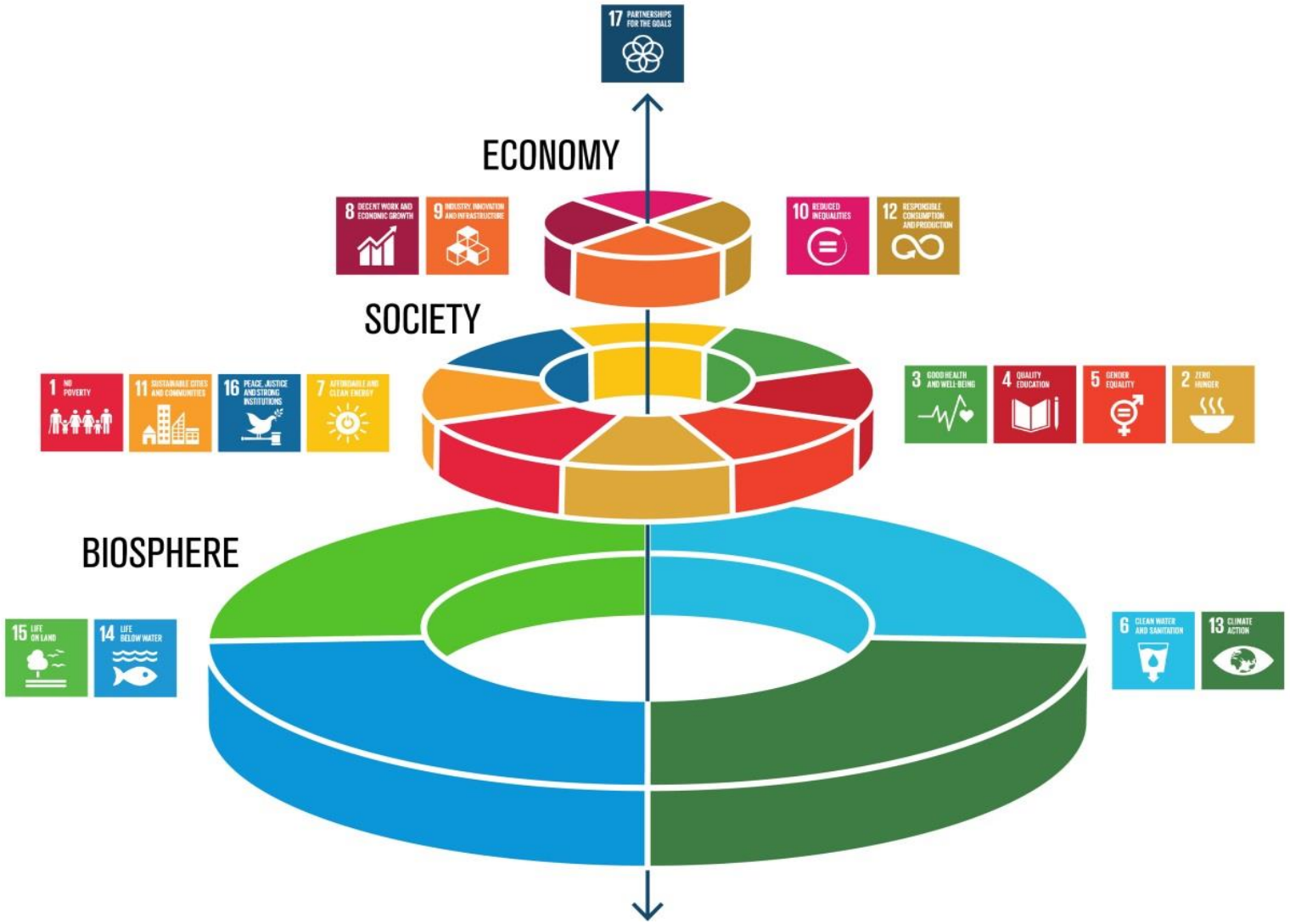
"urbanization is one of the 21st century's most transformative trends"



"Planet of Cities"

Cities dominate the development and global environmental change agenda

https://habitat3.org/the-new-urban-agenda



"must transition toward a world logic where the economy serves society so that it evolves within the safe operating space of the planet…" (Stockholm Resilience Centre)

Report of the High-Level Panel of Eminent Persons on the Post 2015 Development Agenda.

"The post-2015 agenda must be relevant for urban dwellers. Cities are where the battle for sustainable development will be won or lost."

SDG 11: Make cities inclusive, safe, resilient and sustainable.

Cities also key to the Climate Change Agenda

Cities account for over 70% of global fossil fuel CO_2 emissions and are vulnerable hotspots of climate impact

Paris Decision – COP21 2015.

133. *Welcomes* the efforts of all non-Party stakeholders to address and respond to climate change, including those of civil society, the private sector, financial institutions, **cities** and other subnational authorities"

New Urban Agenda - 2016

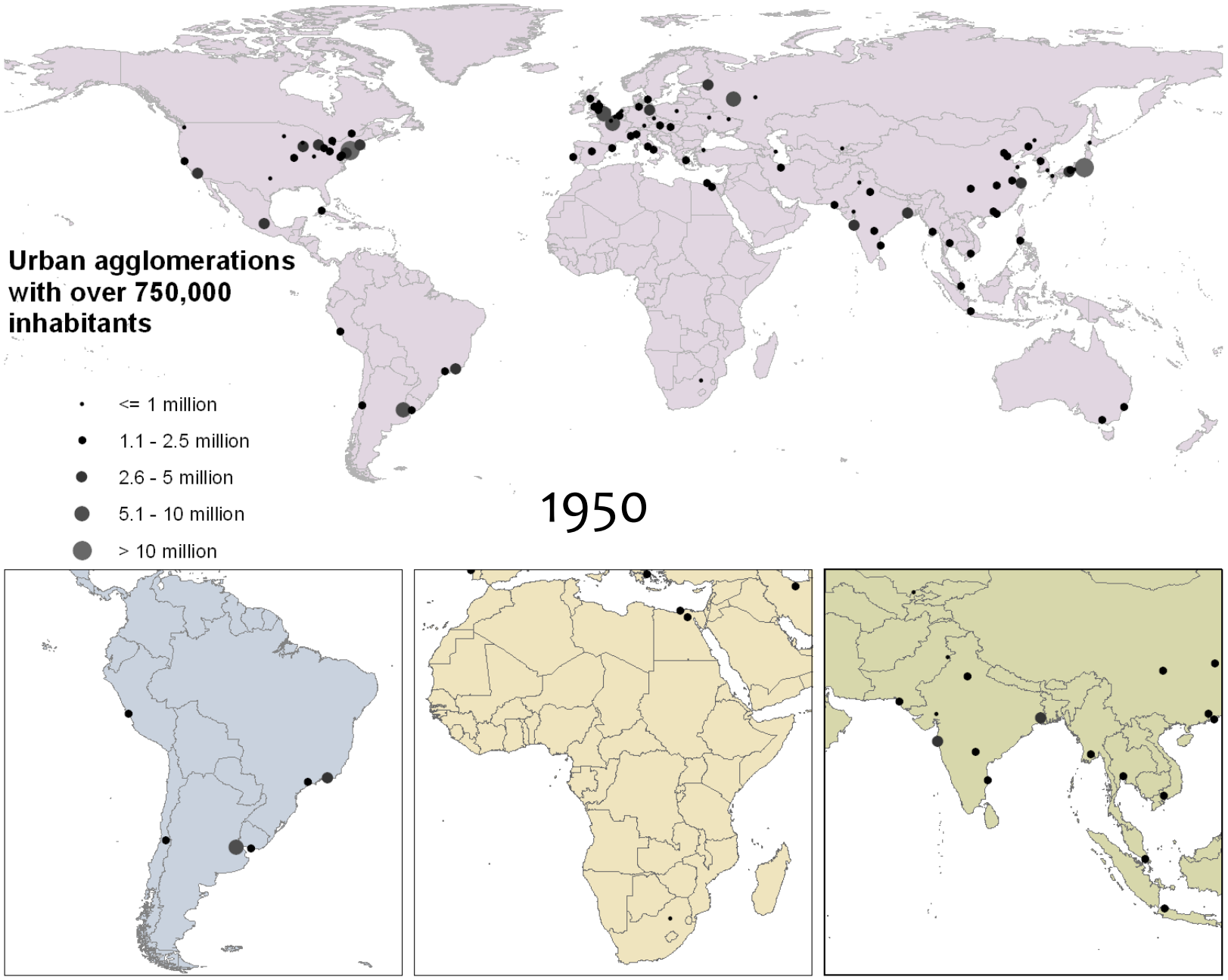
79. “We commit to promote international, national, sub-national, and local climate action, including climate change adaptation and mitigation, and **to support cities and human settlements, their inhabitants and all local stakeholders to be important implementers.**”

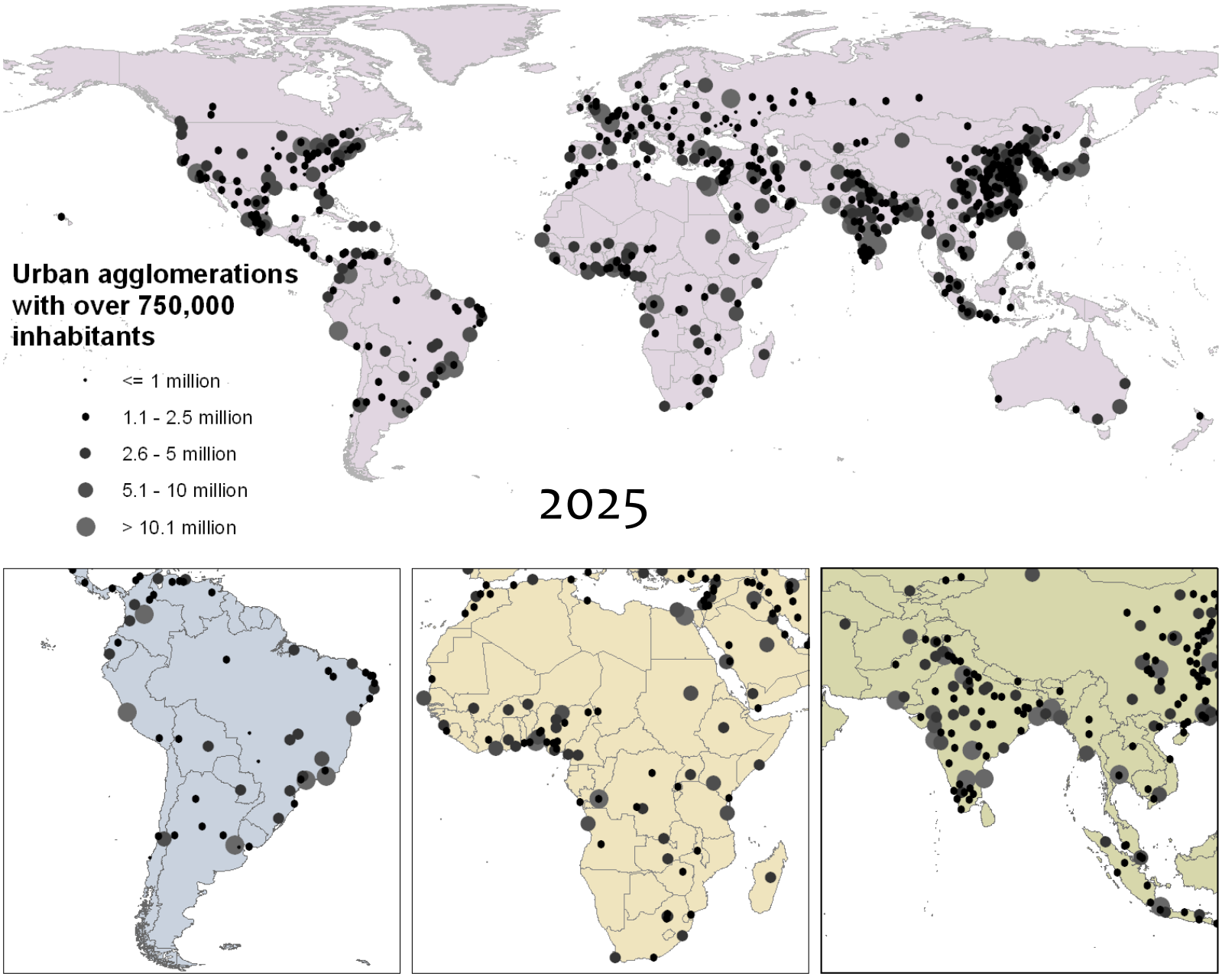
Urban centres concentrate people and assets:

- 3.9 billion people today - increase by 2.5 billion by 2050. ±90% of the increase concentrated in Asia and Africa.
- Most of the world's economy and assets: *600 cities account for 60% of the world's GDP*
- Makes cities vulnerable to climate change risks – flood, drought, extreme heat (UHI) and precipitation with food security, human health and infrastructural impacts and losses…

VULNERABILITY AND EXPOSURE

URBAN AREAS ARE WHERE THE CLIMATE CHANGE RUBBER HITS THE ROAD


Urban agglomerations with over 750,000 inhabitants
<= 1 million
1.1 - 2.5 million
2.6 - 5 million
5.1 - 10 million
> 10 million
1950


Urban agglomerations with over 750,000 inhabitants
<= 1 million
1.1 - 2.5 million
2.6 - 5 million
5.1 - 10 million
> 10.1 million
2025

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INTERGOVERNMENTAL PANEL ON climate change

CLIMATE CHANGE 2014:

IMPACTS, ADAPTATION, AND VULNERABILITY

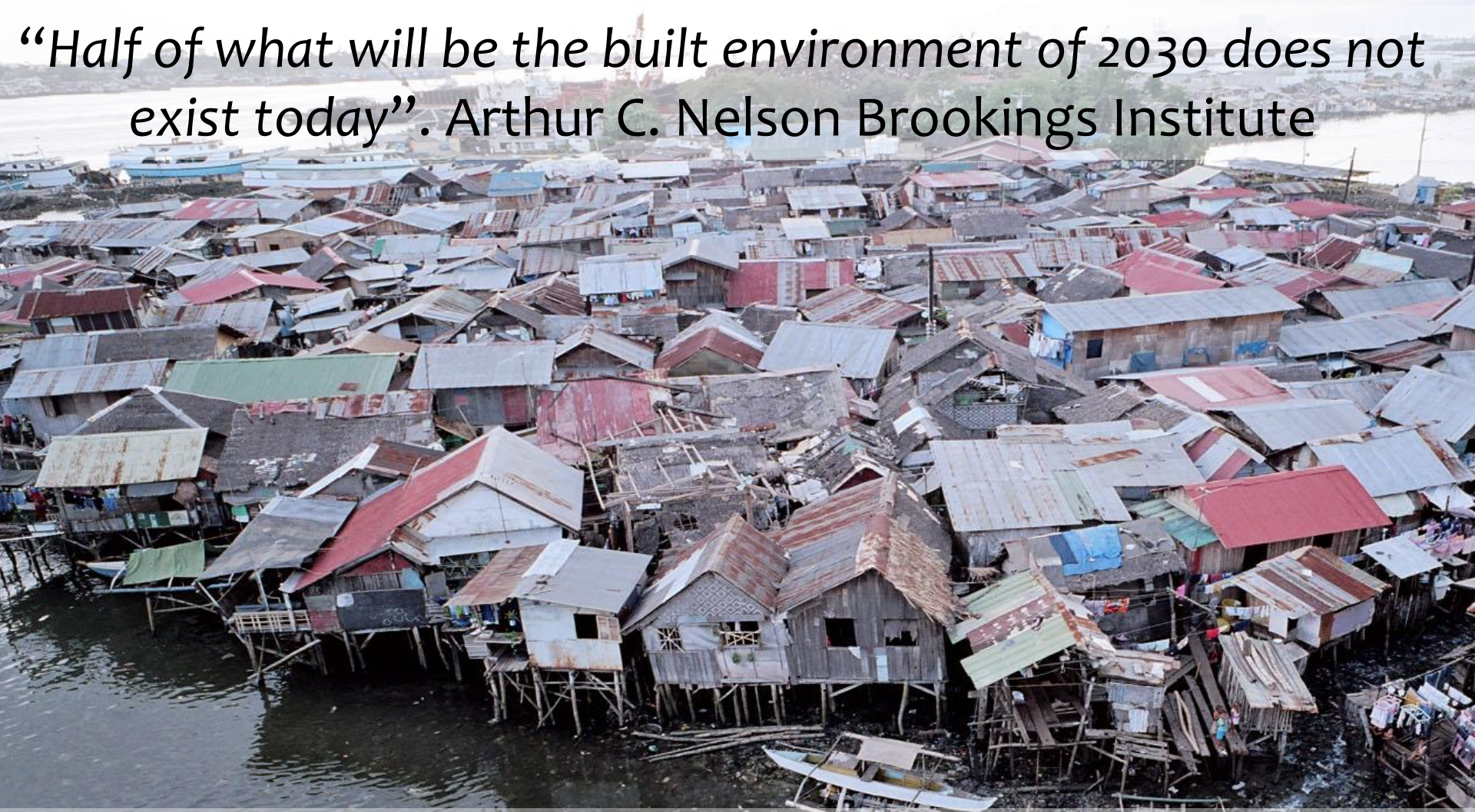
What's New?

- Strong urban focus
- Adaptation-development links

Underdevelopment makes cities vulnerable regardless of the type of risk:

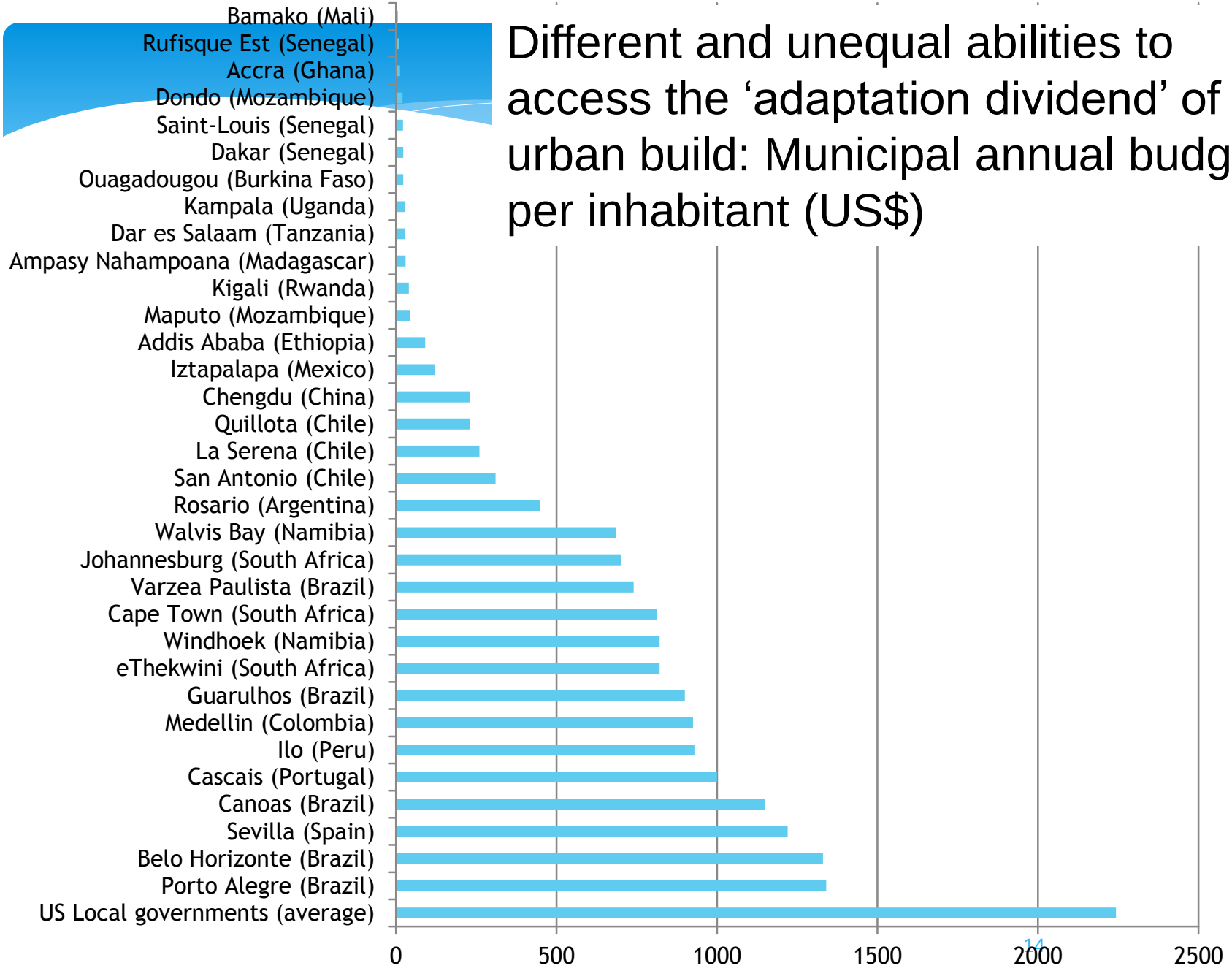
- Very large development and infrastructure deficits
  - *Most of the world's urban population is in low- and middle-income developing countries*
  - *Loss of ecological infrastructure*
  - *A billion living in informal settlements – 1:7*

"Half of what will be the built environment of 2030 does not exist today". Arthur C. Nelson Brookings Institute



Unique global opportunity: Annual urban infrastructure spend from $10 trillion to more than $20 trillion by 2025, majority spent in urban centers in emerging economies – opportunity of aging infrastructure.

Different and unequal abilities to access the ‘adaptation dividend’ of this urban build: Municipal annual budget per inhabitant (US$)



The spectrum of urban adaptive capacity

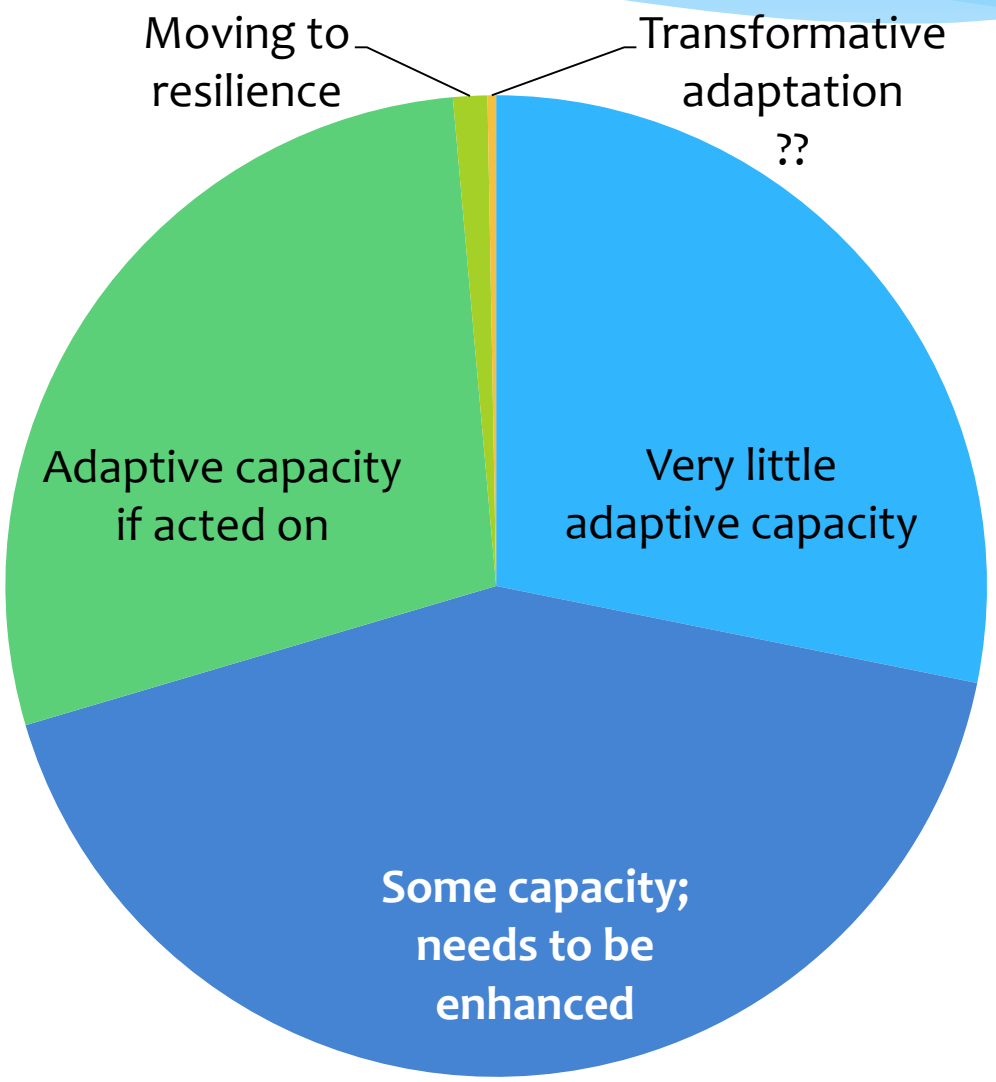
	Low capacity				Radical adaptation
Indicator	Very little adaptive capacity	Some adap… capacity		…ience	Radical or transformative …daptation
Proportion of population served with risk-reducing infrastructure, basic services and institutions, and living in legal housing	0–30% of population served	30–80% populati…		…nd …isk …ions	Most/all population served, with integrated development and adaptation policies; efforts towards mitigation and sustainable ecological footprint
Total population in cities at each capacity level	1 billion people	1.5 billio…		…e	Very few people
Distribution of cities at each capacity level	Most urban centres in low-income and many middle-income countries	Many urban centres in many low-income countries and most urban centres in most middle-income countries	Nearly all urban centres in high-income countries, many in middle-income countries	Small proportion of cities in high- and upper-middle-income countries	Some innovative city governments taking some initial steps
Local government investment capacity	Very little or no local investment capacity	←	→		Substantial local investment capacity
Frequency of disasters from extreme weather	Very common	←	→		Uncommon

"… potential to address root causes of poverty and failures in sustainable development, including the need for rapid progress on mitigation."

Has the ability to fundamentally change the attributes of urban systems

[Source: Developed from Table 8.2 in IPCC Fifth Assessment Report (2014), Working Group II.]

How well are urban centres worldwide doing in relation to adaptive capacity



EFFECTIVE CLIMATE CHANGE ADAPTATION

A MORE VIBRANT WORLD

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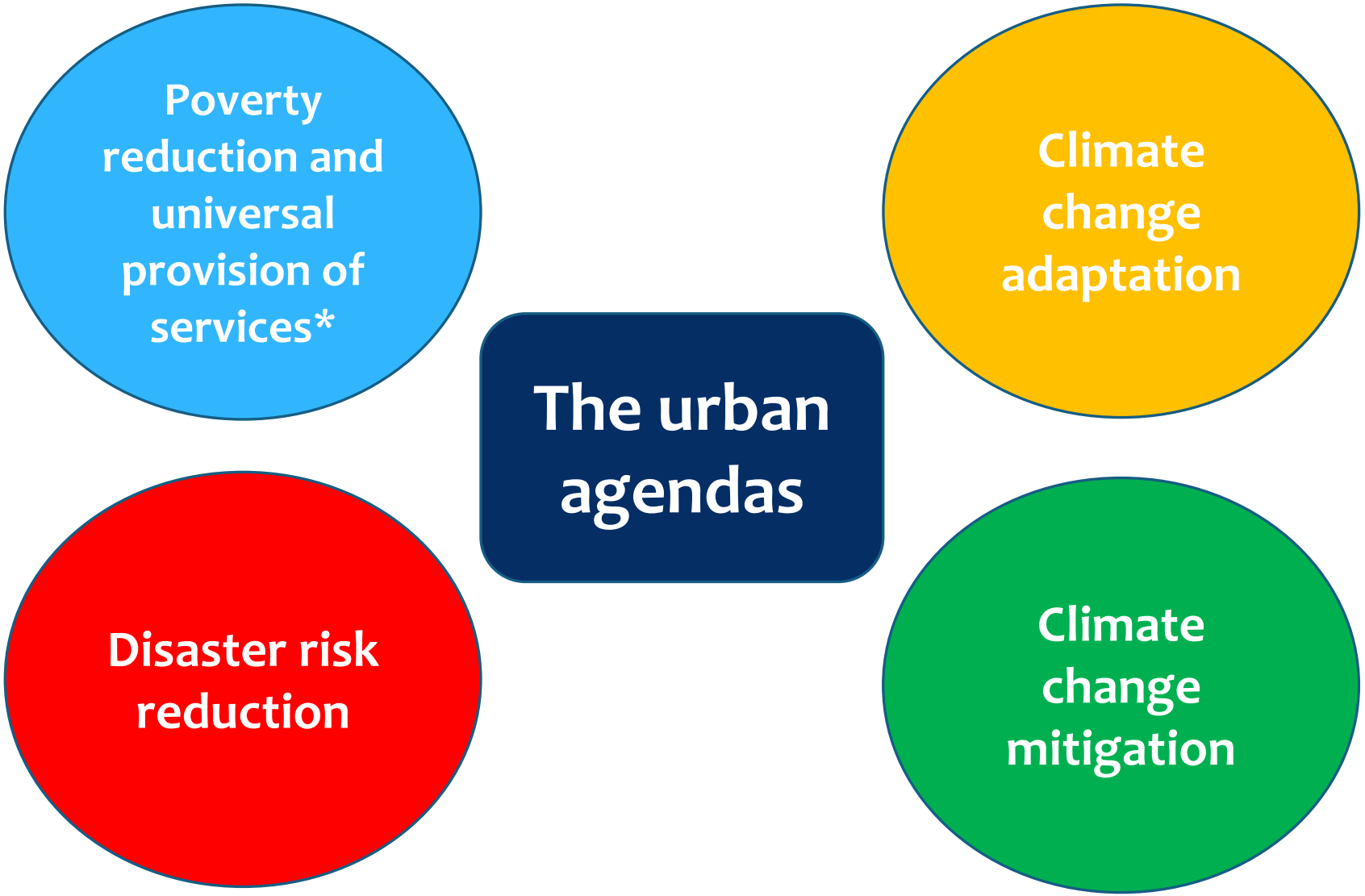
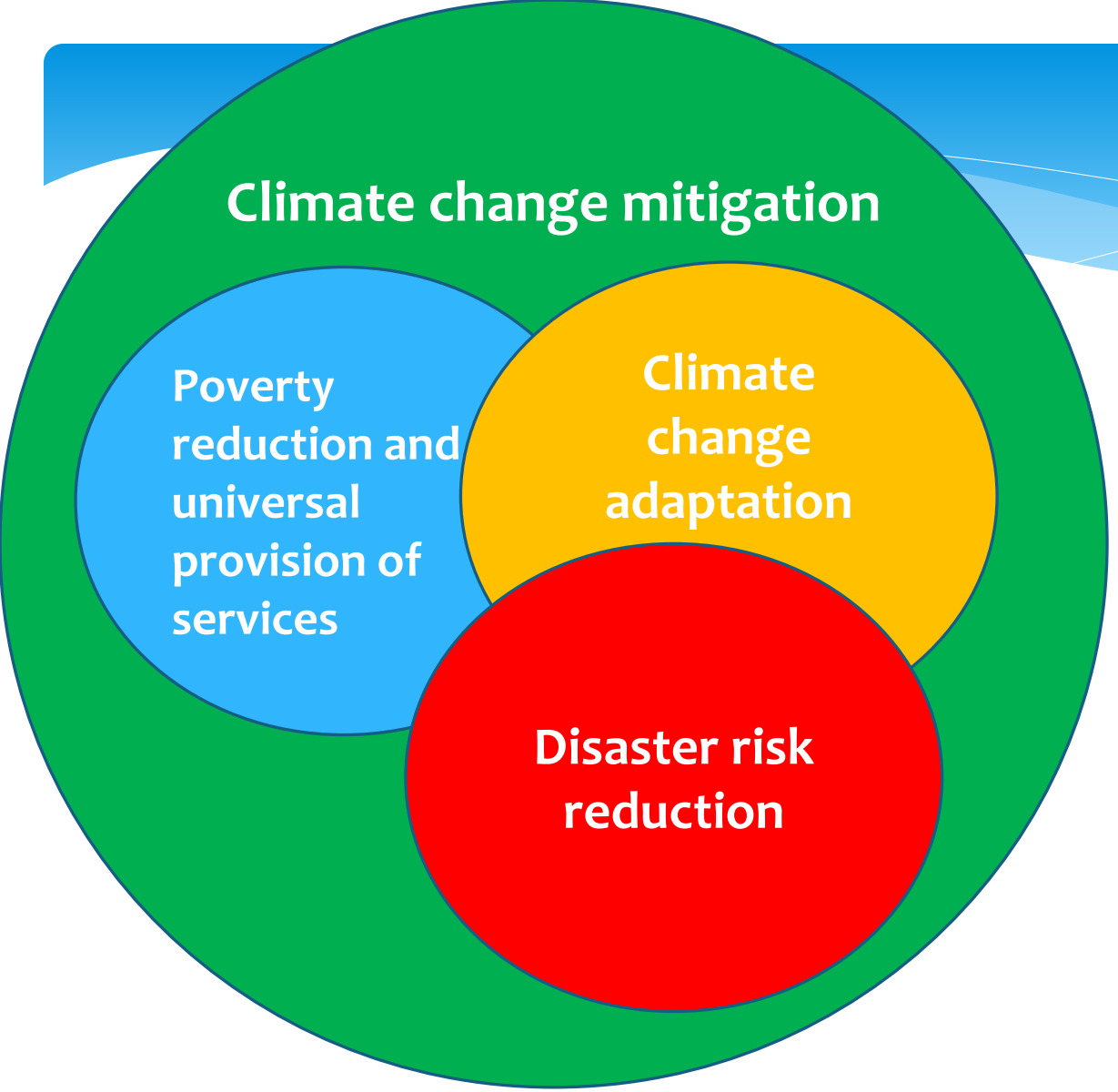
FOCUS ON INTEGRATED DECISION-MAKING TO GENERATE MULTIPLE BENEFITS AND MANAGE TRADE-OFFS



* Following sustainable development principles

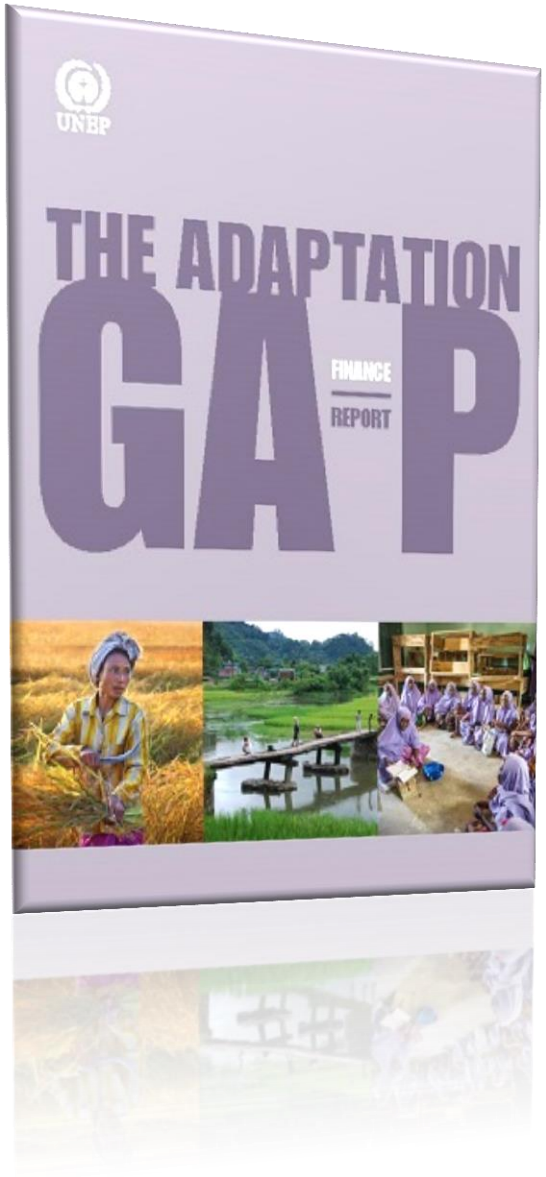
Reforestation - Improved water supplies - flood reduction - carbon storage



The urban agendas

- In long-term 'dangerous' climate change has profound influence on the other three
- Date when even strong adaptation cannot reduce risks without mitigation
- **Transformative adaptation**

UNEP: The Adaptation Finance Gap Report 2016



- The costs of adaptation likely to be **2 to 3x** higher than current global estimates by 2030, and potentially **4 to 5x** higher by 2050.
- Previous global estimates for developing countries: **US$70 billion - US$100 billion pa.**
- Could range from **US$140 billion to US$300 billion** by 2030, and between **US$280 billion and US$500 billion** by 2050.
- **Enhanced mitigation ambition and pre-2020 action is central for limiting adaptation costs** - BUT must now also consider the possible impacts of **aggressive mitigation on adaptive capacity** (e.g. 1.5°C).


Impacts
invitation
lessons
enabling
equity
fast
eradication
climate
levels
overshoot
reduced
report
related
implementing
information
opportunities
potential
risks
changes
Laying
including
negative
Report
Synergies
Sustainable
different
environmental
Methods
adaptation
mitigation
taking
transience
threat
Mitigation
lived
onset
spillover
systems
trade-offs
Building
limitations
vulnerability
literature
rapid
reducing
timeframe
technologies
adaptive
capacity
higher
short
pathways
vulnerabilities
development
uncertainty
warranted
across
consideration
change
understanding
term
within
comparison
approach
achieving
considering
slow
strengthening
sustainable
account
cycle
arising
Special
challenges
food
observed
options
concepts
associated
integration
limits
studies
technological
UNFCCC
warming
Assessing
global
AR5
central
attributable
deployment
Options
compared
Key
solutions-based
response
production
pace
probability
assessment
cities
planning
scales
foundations
measures
context
Context
Distributional
current
emissions
sectoral
spatial
natural
consistent
ethics
implications
regional
socio-economic
experience
impacts
emerging
institutional
poverty
emission
human
learned

Importance of cities increasingly recognised by IPCC (P43/P44)

5. To recommend, within the AR6 scoping processes, a stronger integration of the **assessment on the impacts of climate change on cities** and their **unique adaptation and mitigation opportunities….”**.

6. That the **AR7 cycle will include a Special Report on climate change and cities.**

7. To consider working with **academia, urban practitioners, and relevant scientific bodies and agencies**, to organize an **international scientific conference** on climate change and cities early in the AR6 cycle, in order to stimulate scientific reports and peer reviewed publications on this subject. **Approved at P44.**

Key roles of local governments - will need to plan, manage and deliver much of the transformative adaptation that is needed.

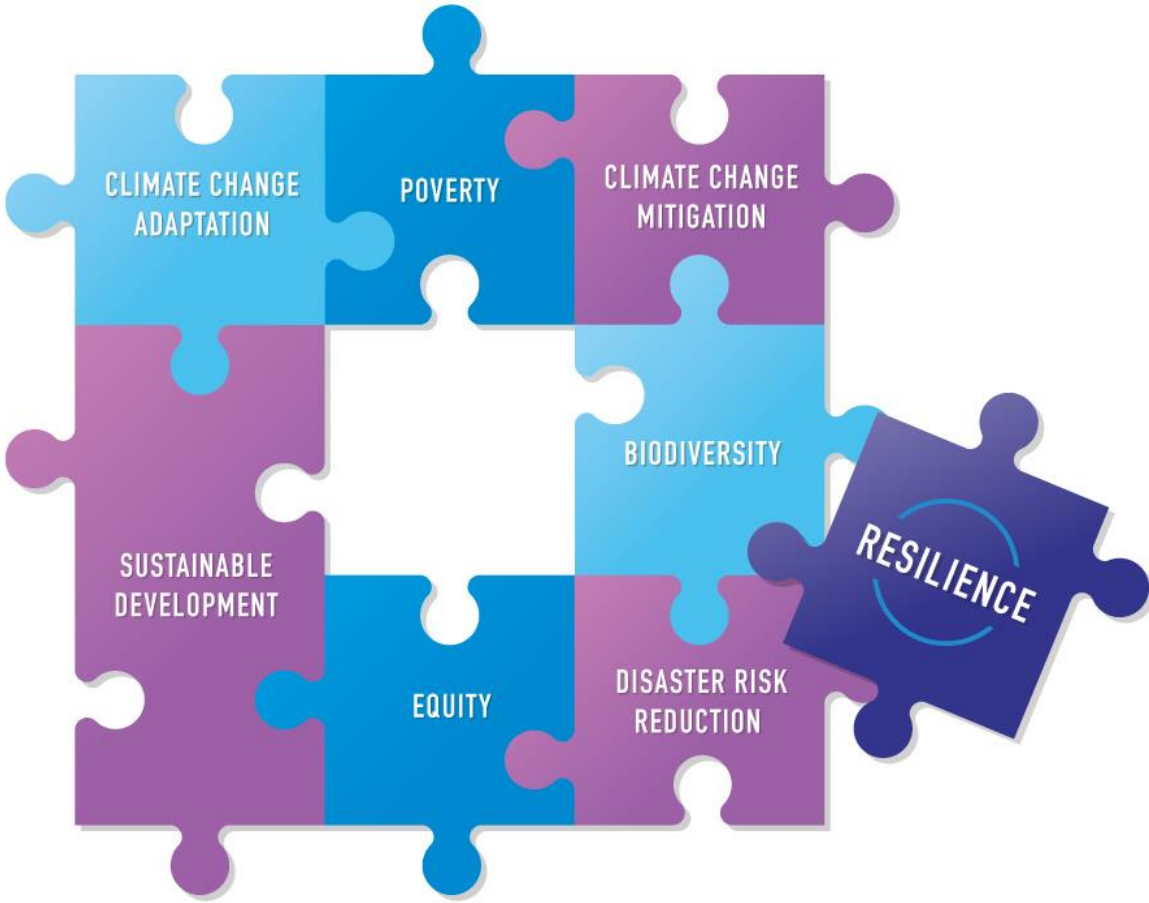
The urban governance advantage

- Unique policy competence
  - *Engagement with local stakeholders*
  - *Tap/influence private and household investment*
  - *Economies of scale*
  - *Integrate land use and infrastructure planning to address adaptation and mitigation needs in a pro-poor and ecologically sustainable manner*

Local governments do not have all the right policy levers or the resources to get the job done

Increasingly complex challenges at the local level… climate change is not the only game in town.

An increasingly broad range of agendas now need to be integrated at the local level…



Effective urban risk governance

- *Appropriate mandates – to avoid hitting resource or policy 'glass ceiling'.*
- *Local powers for good planning and managing land use change*
- *Alignment across international, national, sub-national, local policies*
- *Access to locally relevant, timely climate data and assessment tools, recognize and work with uncertainty*
- *Iterative decision-making including monitoring and design for continuous learning*
- *Leadership matters! –actively create local leaders*

The opportunities for growth and development and ambitious global climate action lie, in many cases, in the world's cities.

- How do we re-imagine the cities of Asia and Africa to harness this potential?
- How to we reform international processes to give cities a real place at the table (e.g. the new Global Covenant of Mayors).
- How do we get resources directly to local governments?
- How do we ensure that climate science is produced at a scale that cities can access and use?
- How do we mobilise local stakeholders and leaders to play their role?

Thank you

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