

The Urgency of Resilience Agenda in Asian Cities



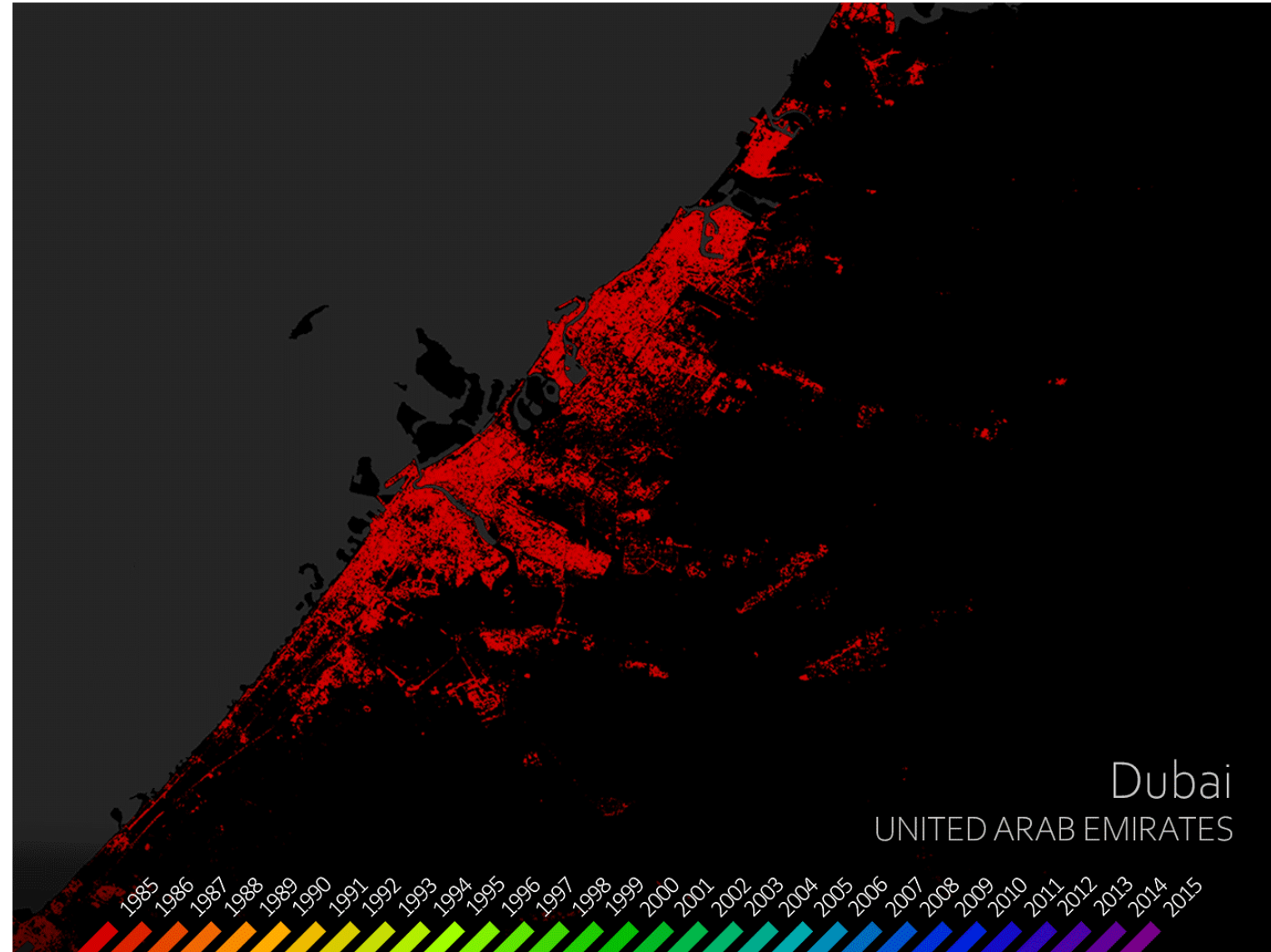
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Brunei, Malaysia, Philippines and Thailand
October 4, 2022

Why does Urban Adaptation & Resilience Matter?

Cities are growing and are increasingly vulnerable to climate hazards.

- More than 70 percent of world population is expected to live in cities by 2050.
- Urban areas are adding 1.4 million people per week.
- 90 percent of urban growth through 2050 are expected to take place in sub-Saharan Africa and Asia.
- Global average annual losses (AAL) from disasters in the built environment can increase to USD 415 billion by 2030, due to investment requirements in urban infrastructure.

E.g., the risk of sea-level rise and subsidence in the 136 largest coastal cities could result in losses of USD 1 trillion or more per year by 2050 without further investment in adaptation and risk management.



Climate Change = Changing Hazard

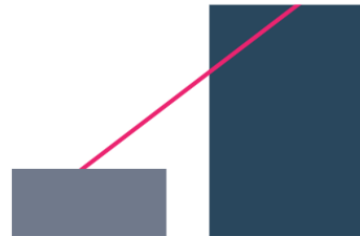
Coastal and river flooding is changing.
Together with urbanization and population growth, risk will grow rapidly!

922
MILLION
people (2010)

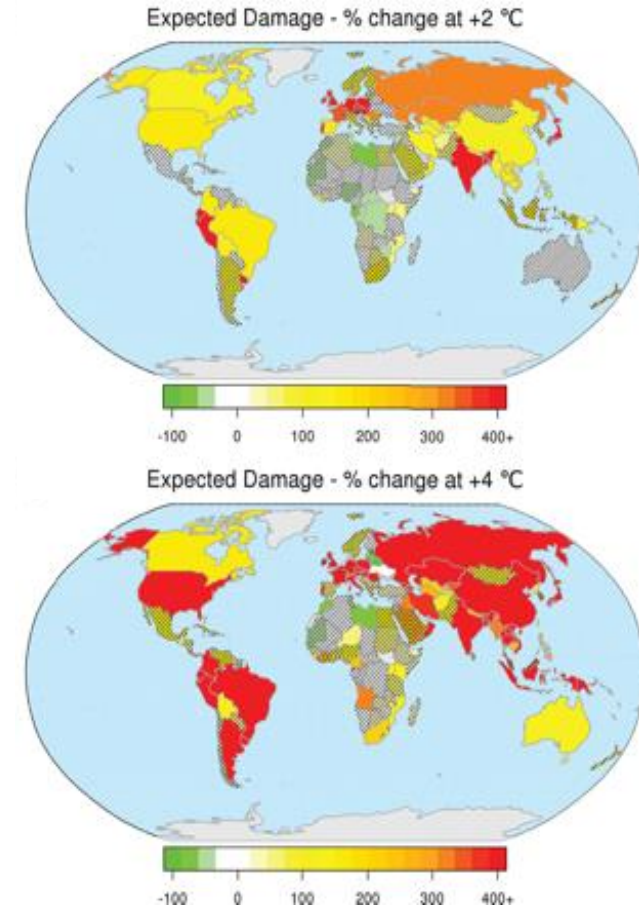


1,300
MILLION
people (2050)

US\$ 46
TRILLION
in assets (2010)



US\$ 158
TRILLION
in assets (2050)



Emerging threats: Heat Island Effect

- Mortality increases by up to 6% per 1°C over 29°C in Asian cities, incl. Hong Kong, Bangkok
- Air in EAP's cities up to 8°C warmer than surrounding areas, & land surfaces up to 15°C warmer
- 1°C increase in annual mean surface temperature increases electricity consumption by 3-4% in Singapore, 4-5% in Hong Kong, 9% in Shanghai

Source: World Bank. 2020. Analysis of Heat Waves and Urban Heat Island Effects in Central European Cities and Implications for Urban Planning. Washington, D.C.

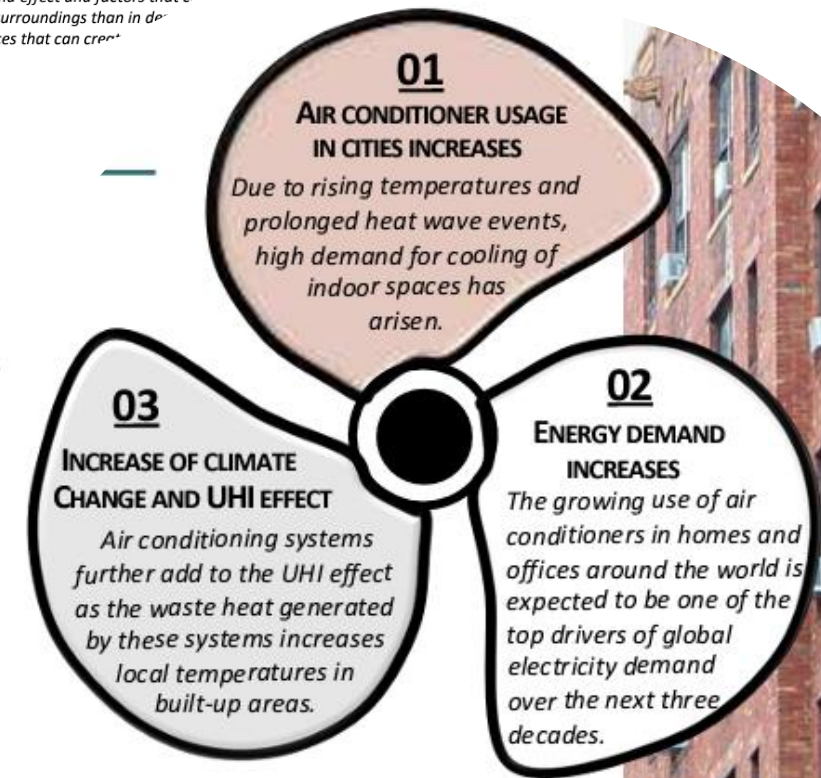
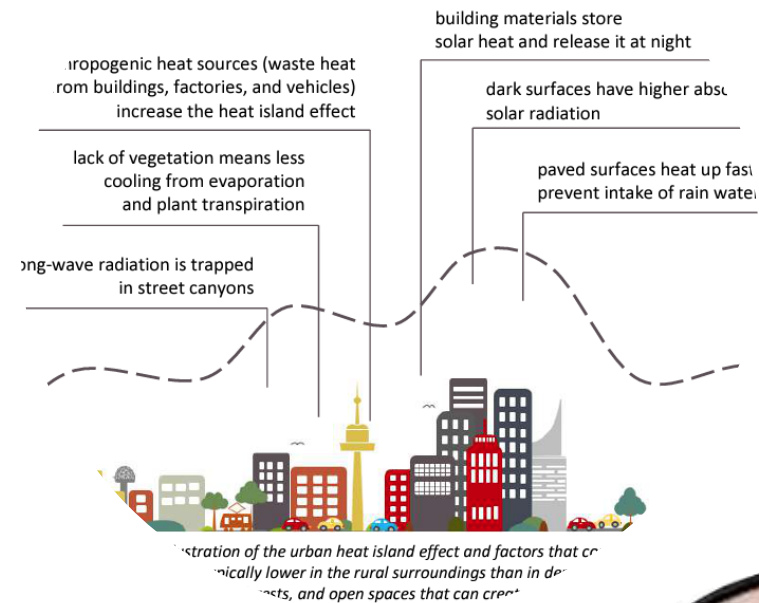


Figure 10. Anthropogenic heat feedback cycle. Credits: ZAMG/Hollósi and de Wit.

Building Comprehensive Resilience

A policy shift towards proactive risk management with focus on preparedness and resilience

Help households and society cope with shocks

e.g., shock responsive social safety nets



Reduce risk, prevent disasters, and be prepared

e.g., quality infrastructure, rehabilitation planning

Protect the fiscal balance, SMEs, and households

e.g., Pre-arranged predictable funding when disasters strike, linked to effective disbursement mechanisms

Climate Adaptation Success Factors: Tailored Adaptive Actions



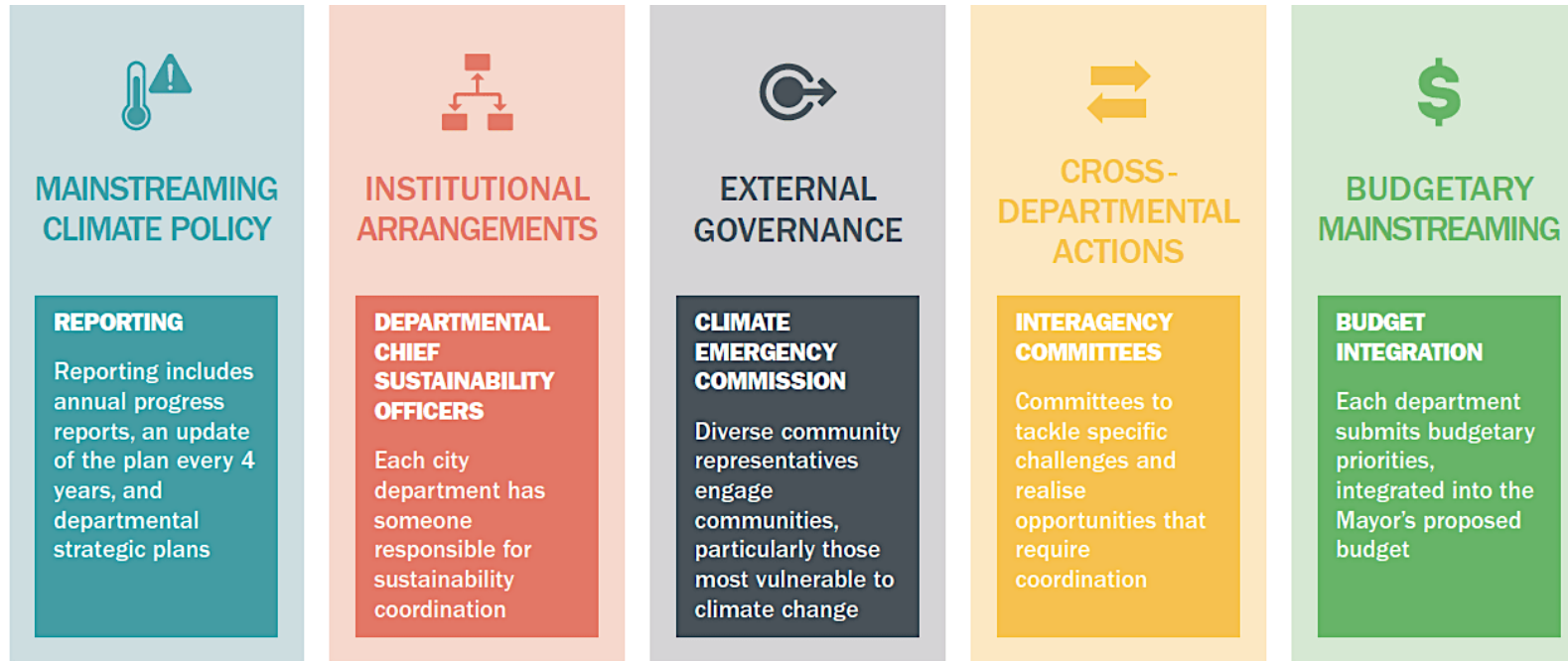
The Bishan-Ang Mo Kio Park, Singapore uses blue-green infrastructure for flood control, biodiversity management, and microclimate control and adds a high-quality public space asset to the city for recreation and educational use.

Source: WRI India

Climate change impacts are highly uncertain and location-specific. Effective adaptation needs to be flexible and tailored to local conditions in consultation with local communities.

- Use downscaled climate projections to understand the range of possible outcomes with regards to extreme weather events in a given region
- Assess which neighborhoods are particularly exposed or vulnerable: Where are the potential flood zones? Where are the informal settlements or slums? Where do recent migrants live?
- Identify priority areas based on hazard exposure and equitable outcomes

Climate Adaptation Success Factors: Good Governance

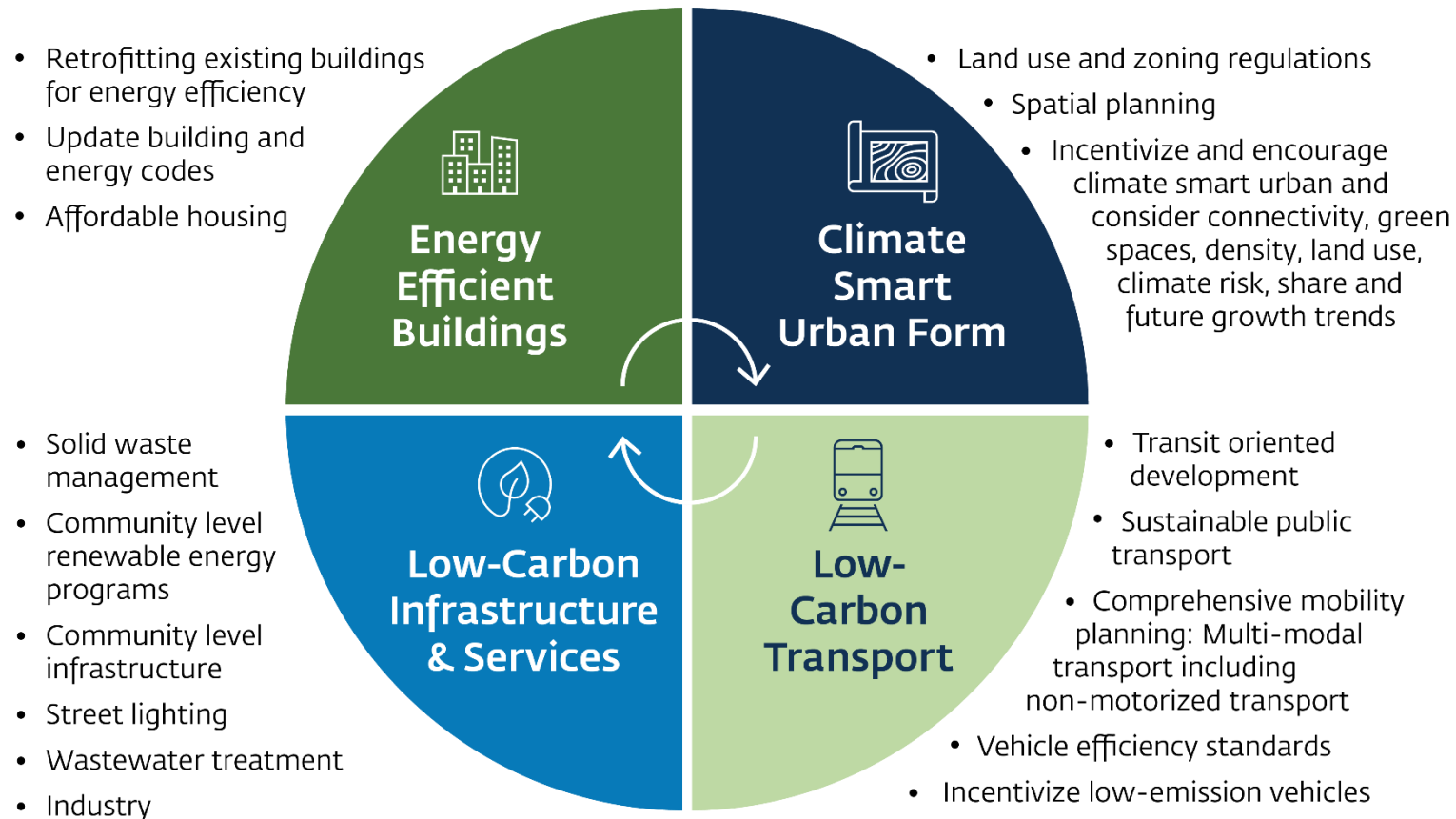


Good climate governance is fundamental to adaptation actions.

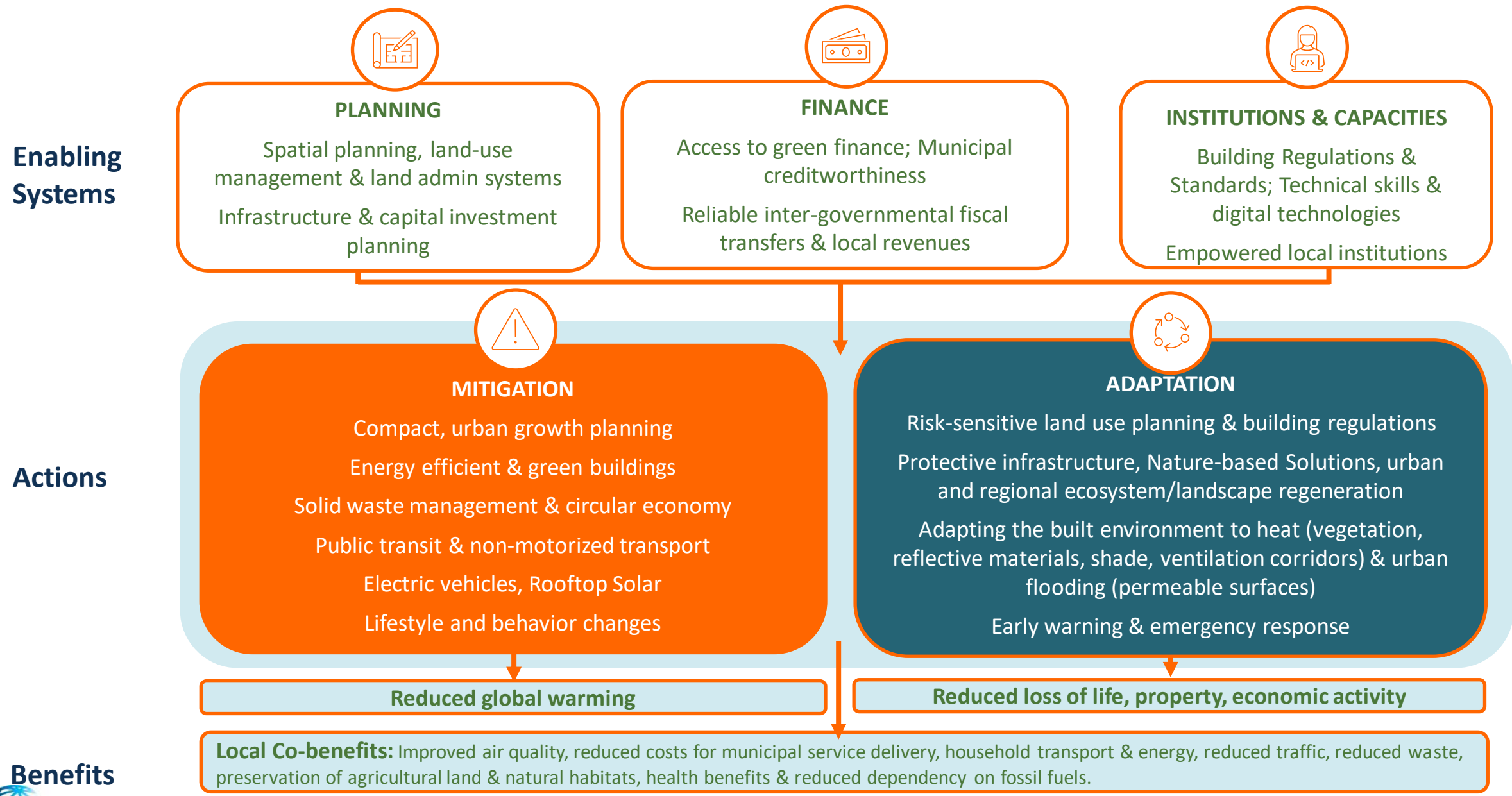
- Institutional arrangements and legal frameworks to support adaptation policies and implementation
- Localize national climate action plans
- Climate budgetary mainstreaming
- Monitoring and transparent reporting to ensure accountability and progress
- Communication and engagement between the city, city society, and other key stakeholders

Los Angeles's pLAN illustrates the governance structures to ensure effective and equitable delivery.
Source: C40

Mitigating Urban Emissions Requires Transition Across Sectors



Planning, Financing, & Implementing Actions in Cities



THANK YOU



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