



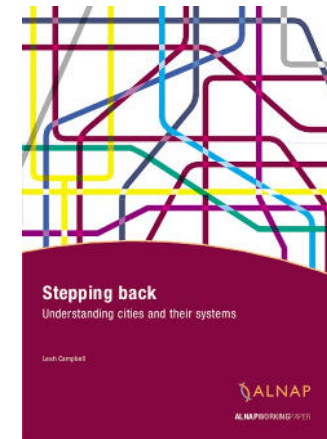
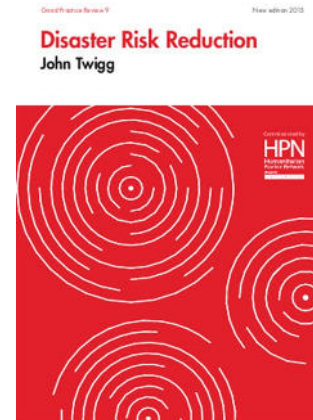
# *Urban DRR and Resilience: questions, challenges and opportunities for NGOs*

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1. Urban risks and vulnerabilities
2. Urban systems
3. Concepts, frameworks and tools



# 1. Urban risks and vulnerabilities

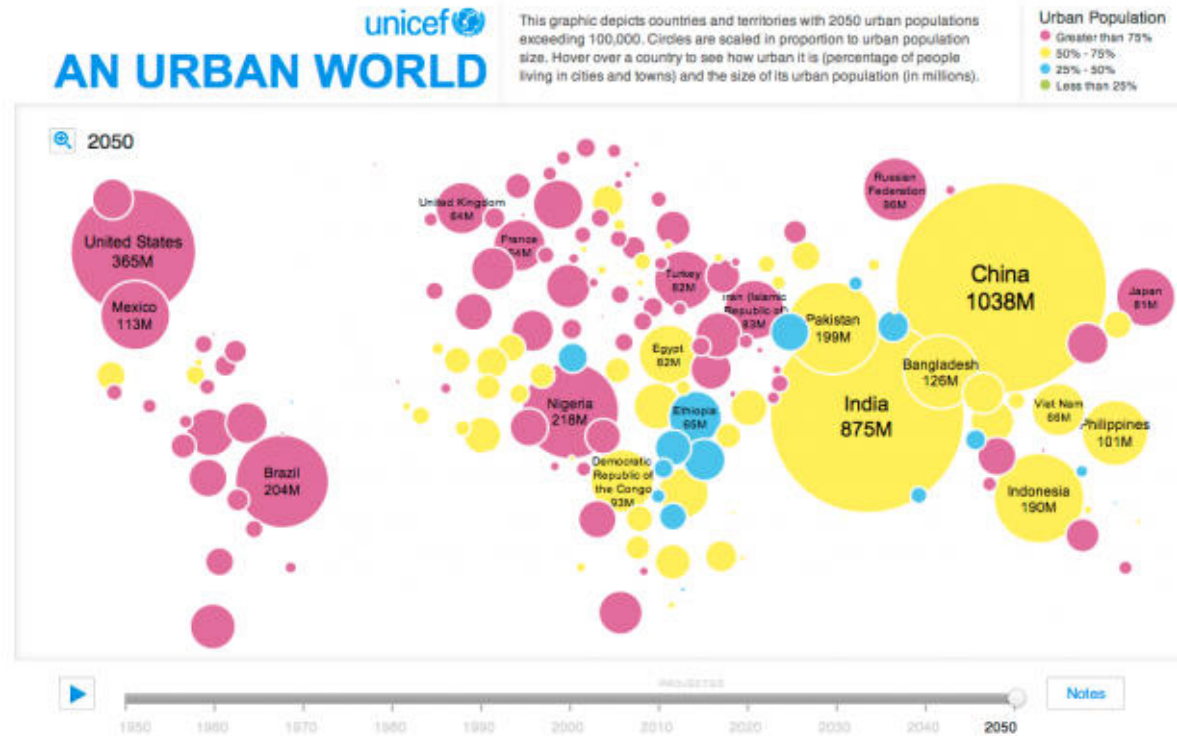
## 1.1 Urban and urbanisation

## 1.2 Hazards and risk

## 1.3 Urban vulnerability

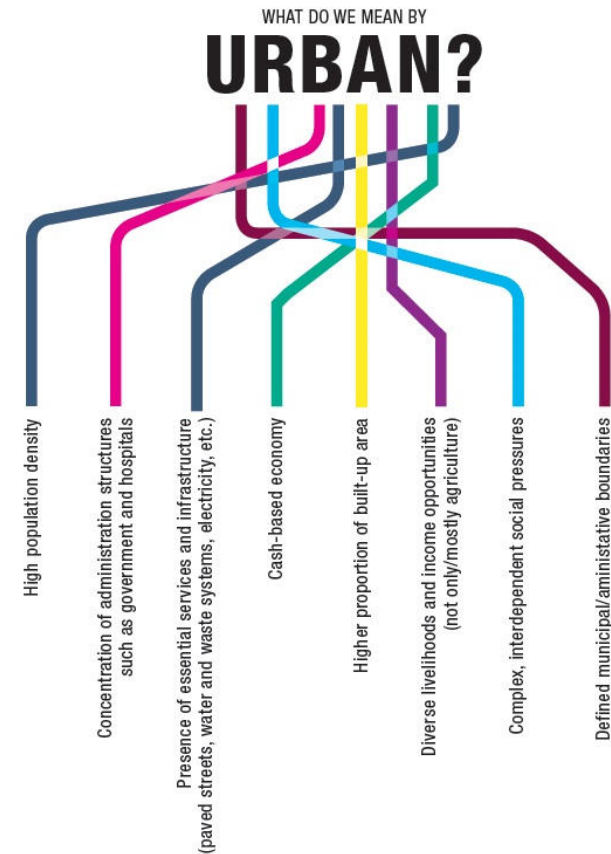


## 1.1 Urban and urbanisation



- High population density
- Concentration of administration structures such as government and hospitals
- Presence of essential services and infrastructure (paved streets, water and waste systems, electricity, etc.)
- Cash-based economy;
- Higher proportion of built-up area;
- Diverse livelihoods and income opportunities (not only/ mostly agriculture);
- Complex, interdependent social pressures;
- Defined municipal/administrative boundaries.

Figure 1. What is Urban?



Campbell L, *Stepping Back: Understanding cities and their systems*.  
London: ALNAP/ODI, 2016

## 1.2 Hazards and risk

- Environmental hazards
- Exposure to hazards
- Intensive and extensive risks



[blogs.voanews.com](http://blogs.voanews.com)  
23/2/2012

### 1.3 Urban vulnerability

- Poverty and marginalisation
- Legality (informal settlements)
- Livelihoods and coping strategies
- Urban density
- Dependence on public services and structures
- Uncontrolled development
- Food insecurity
- Community and community-based DRR
- Private and public space



Photo: John Twigg



## 2. Urban systems

2.1 Systems and systems approaches

2.2 Urban systems explained

2.3 Urban stakeholders





## 2.1 Systems and systems approaches – what is a ‘system’?

“A ‘system’ is an interconnected set of elements coherently organized in a way that achieves something. It is more than the sum of its parts

...

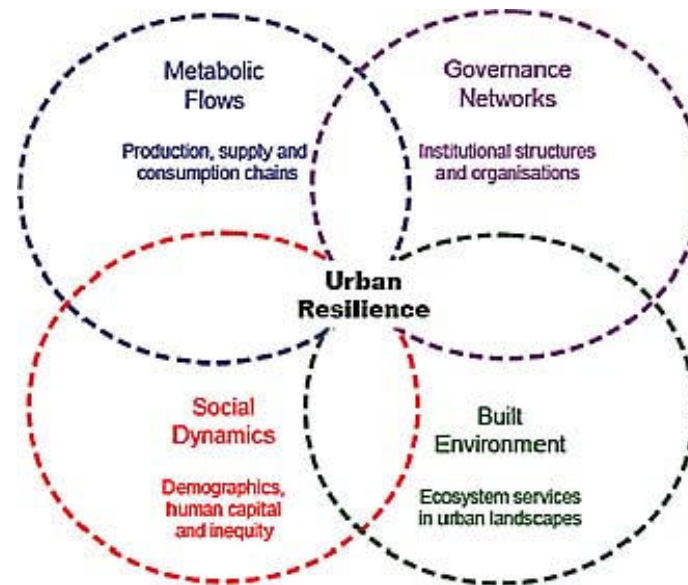
... A defining property of human systems is complexity: because of the sheer number of relationships and feedback loops among their many elements, they cannot be reduced to simple chains of cause and effect

...

... In complex systems, change results from the interplay of many diverse and apparently unrelated factors. Those of us engaged in seeking change need to identify which elements are important and understand how they interact.”

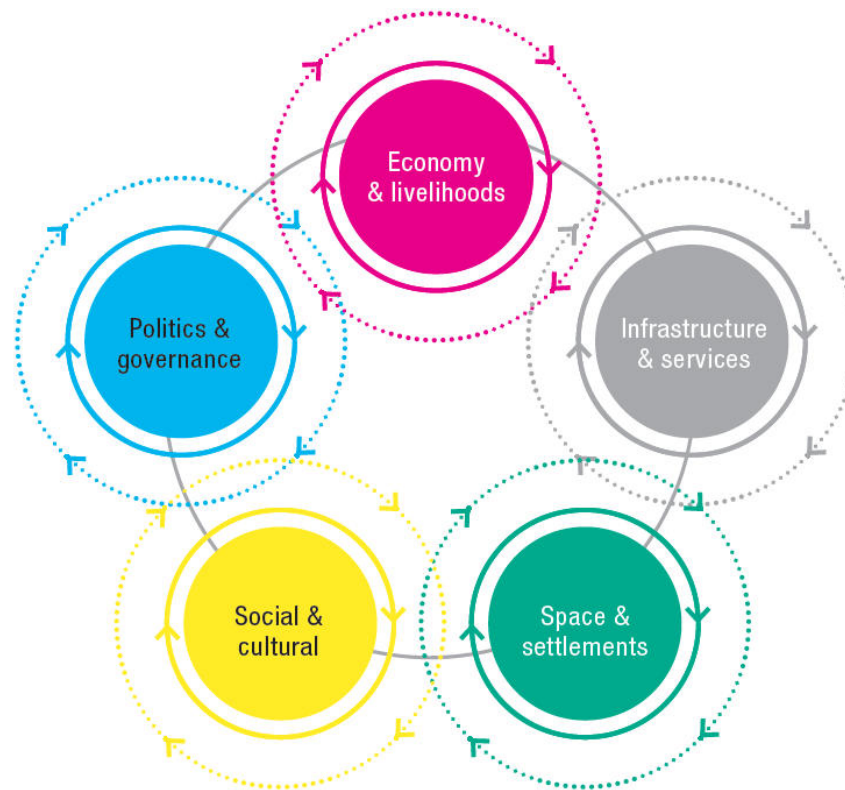


## 2.2 Urban systems explained



[www.resalliance.org](http://www.resalliance.org)

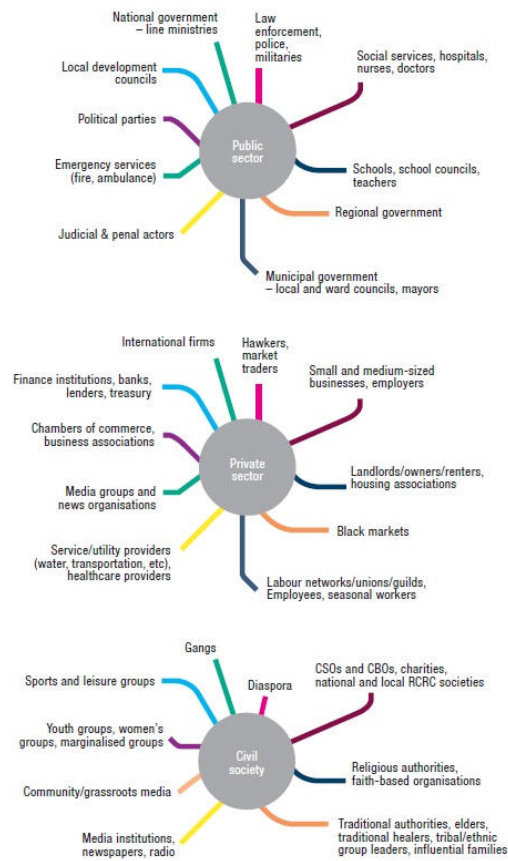
Figure 2. A typology of urban systems



Campbell L, *Stepping Back: Understanding cities and their systems*.  
London: ALNAP/ODI, 2016



Figure 4. Urban stakeholders



## 2.3 Urban stakeholders

Campbell L, *Stepping Back: Understanding cities and their systems*.  
London: ALNAP/ODI, 2016



**Built environment:**

- Setting and enforcing building codes
- Land use regulations and property registration
- Construction and maintenance of public buildings
- Urban planning and zoning

**Infrastructure:**

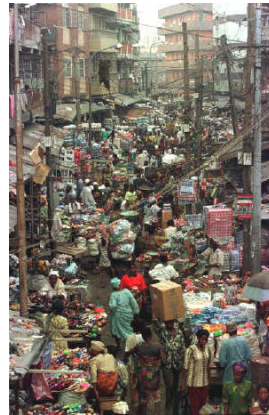
- Piped water (including water treatment)
- Sanitation
- Drainage
- Roads, bridges, pavements
- Electricity
- Solid waste disposal
- Waste water treatment

**Services:**

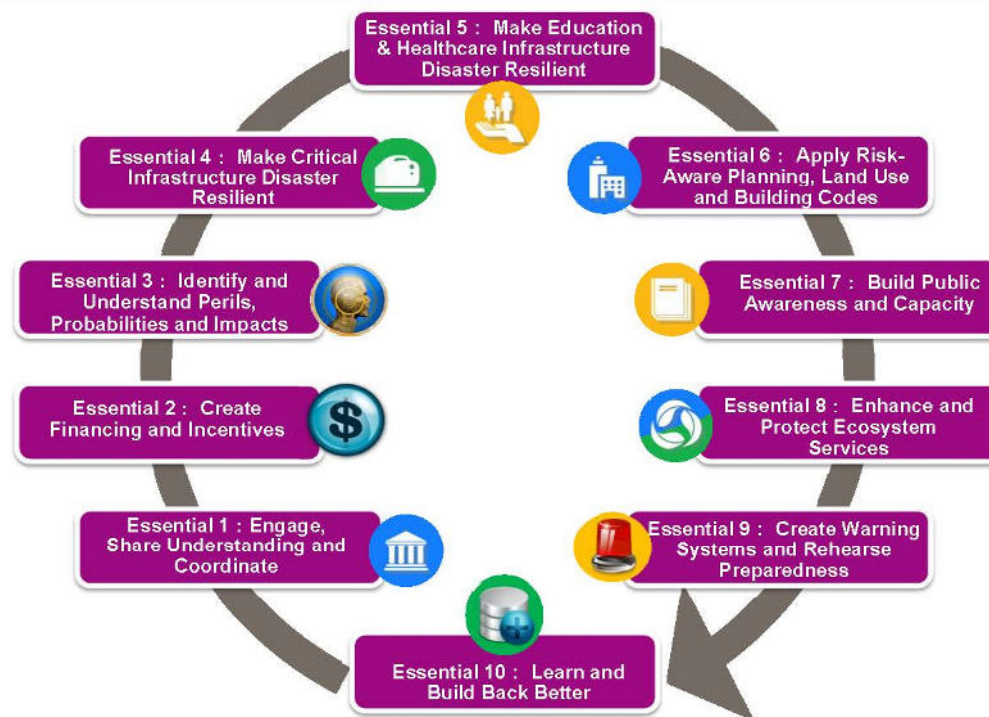
- Fire protection
- Public order, police, early warnings
- Waste collection
- Schools
- Health care and public health services
- Public transport and transport management
- Social welfare
- Emergency planning and response

Adapted from D. Dodman et al., *Understanding the Nature and Scale of Urban Risk in Low- and Middle-income Countries and Its Implications for Humanitarian Preparedness, Planning and Response* (London: IIED, 2013)

### 3. Concepts, frameworks and tools



## AECOM & IBM Resilience Scorecard



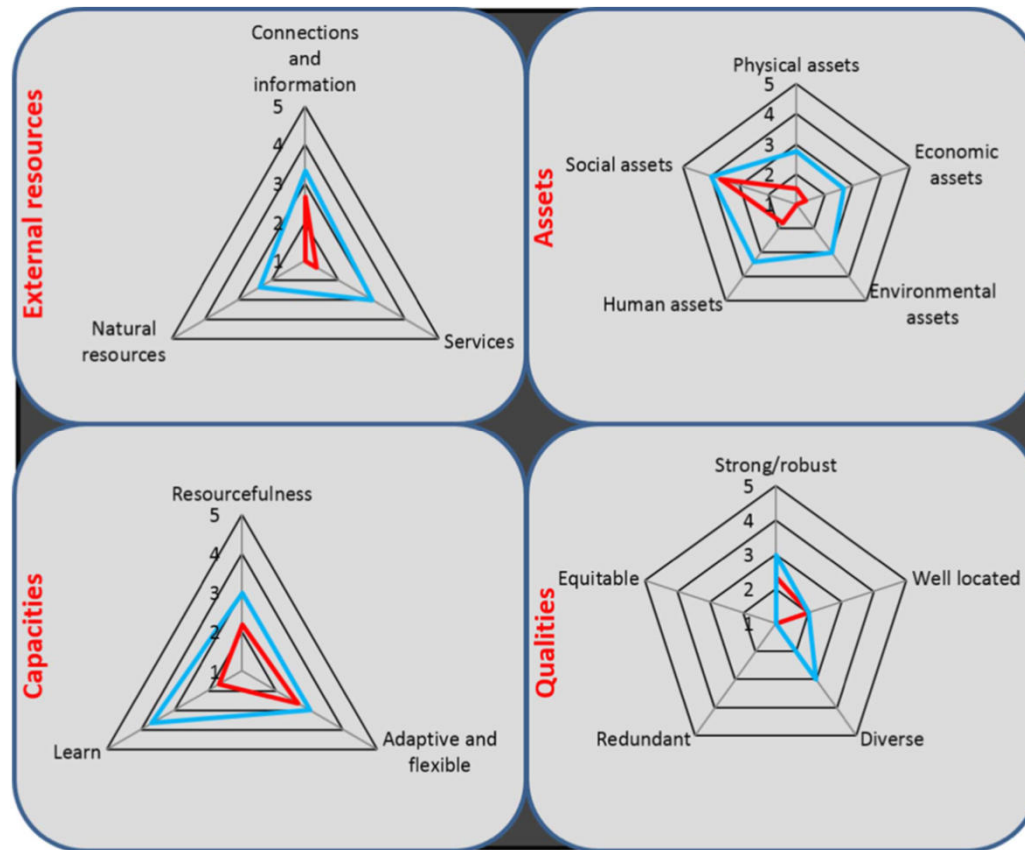
United Nations Office for Disaster Risk Reduction Making My City Resilient Campaign

AECOM





1. Minimal human vulnerability
2. Diverse livelihoods and employment
3. Adequate safeguards to human life and health
4. Collective identity and mutual support
5. Social stability and security
6. Availability of financial resources and contingency funds
7. Reduced physical exposure and vulnerability
8. Continuity of critical services
9. Reliable communications and mobility
10. Effective leadership and management
11. Empowered stakeholders
12. Integrated development planning




Woolf S, et al. (2016), Towards measurable resilience: a novel framework tool for the assessment of resilience levels in slums. *International Journal of Disaster Risk Reduction* 19: 280-302



## Integrating climate change and urban risks into the VCA

Ensure effective participatory  
analysis and enhanced  
community action

[www.ifrc.org](http://www.ifrc.org)  
Saving lives, changing minds.

 International Federation  
of Red Cross and Red Crescent Societies

*Integrating Climate Change and Urban Risks into the  
VCA [vulnerability and capacity assessment] (Geneva:  
IFRC, 2014)*

- urban density (concentration and complexity of settlements)
- urban contexts (type, nature, extent of urban settlements and centres)
- urban communities (complexity, diversity, insecurity)
- stability of populations
- complex social, economic and political conditions
- security and threat of violence (e.g gangs, organised crime)
- restricted or interrupted participation (e.g. unavailability of participants at certain times of day due to work patterns)
- building trust with communities
- official recognition/legality of settlements

*Do we need more tools and  
frameworks?*



*Thank you!*

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