

# **Institutional Capacity for Climate Change Responses: An examination of construction and pathways in Mexico City and Santiago Chile**

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# Is response capacity different for Mexico City (frontrunner) and Santiago (laggard)?



## Mexico City

- National and City Laws of Climate Change
- Strategy and Action Plan



## Santiago

- Climate Action Plan [to be launched](#) in 2012



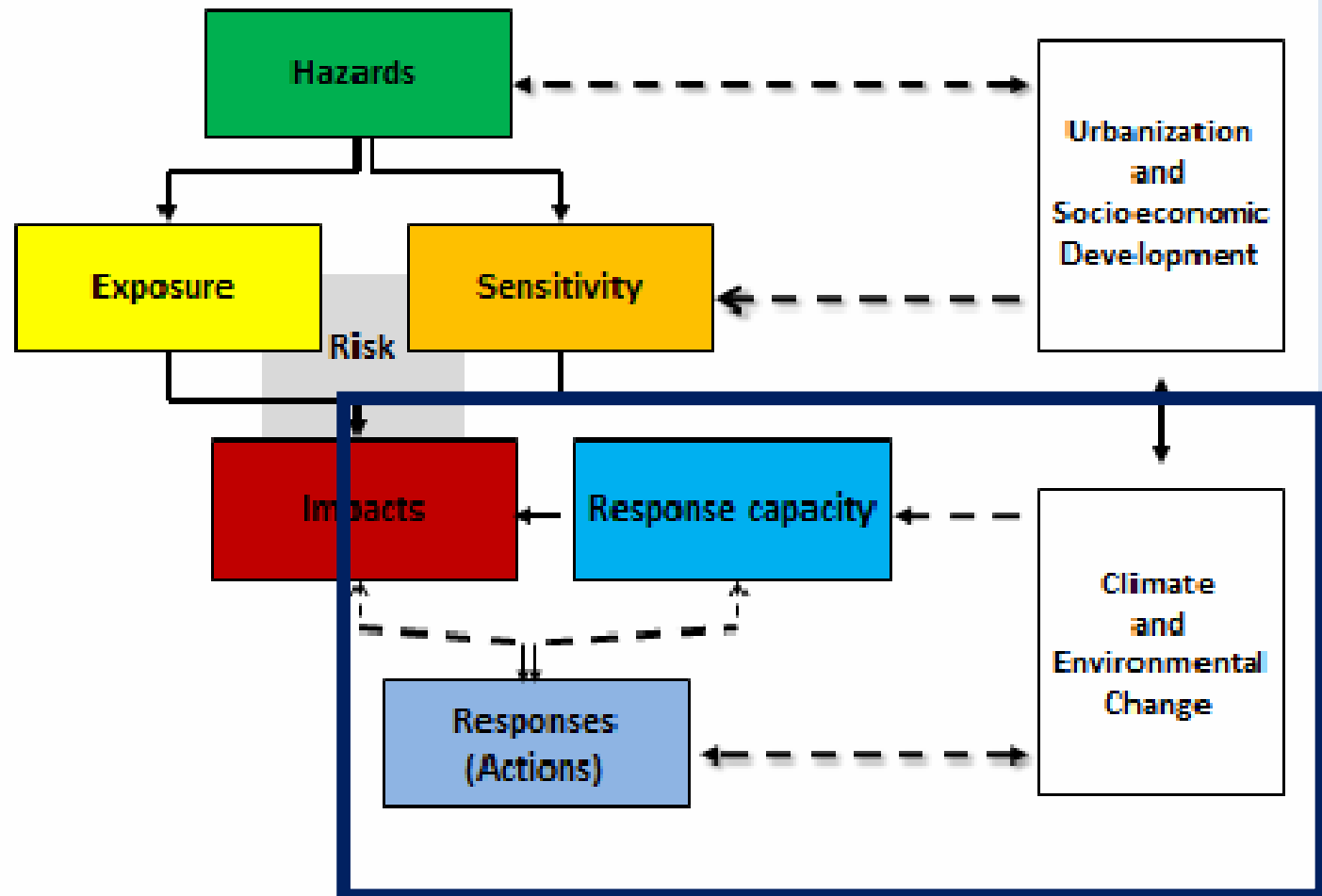
# Methods: Qualitative analysis

1. Interviews with Government (City, State, National), Academics, and NGOs/Community organizers
  - a) 18 in Mexico City
  - b) 22 in Santiago

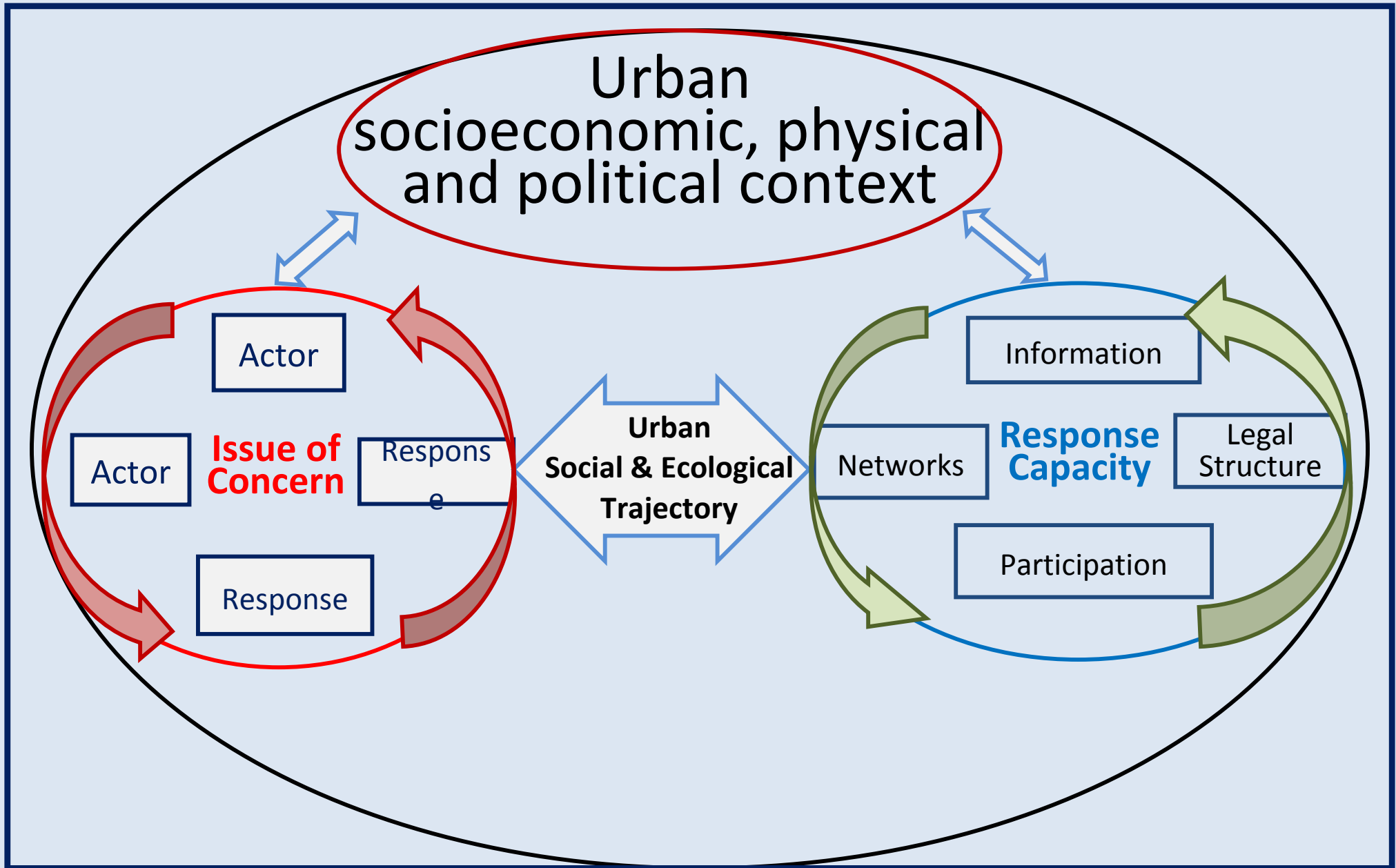


2. Common coding scheme in Nvivo, network analysis software (UCInet).
3. Supplemented with government reports and academic studies

# Urban vulnerability and Risk



# Unpacking institutional response capacity



# The context

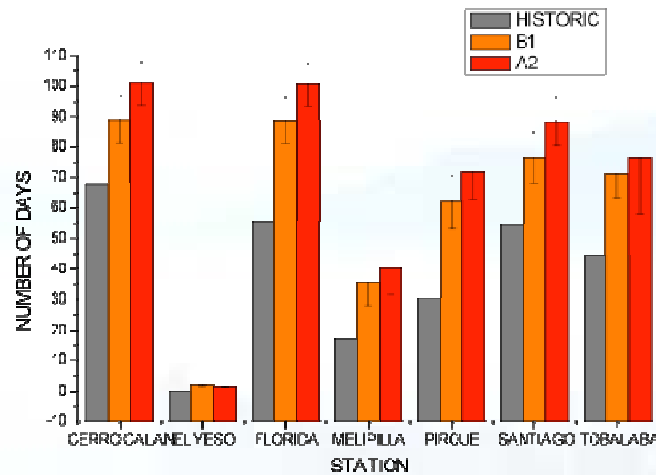
Climate and Environmental Change

Temperature increases

Changes in precipitation

Heat waves

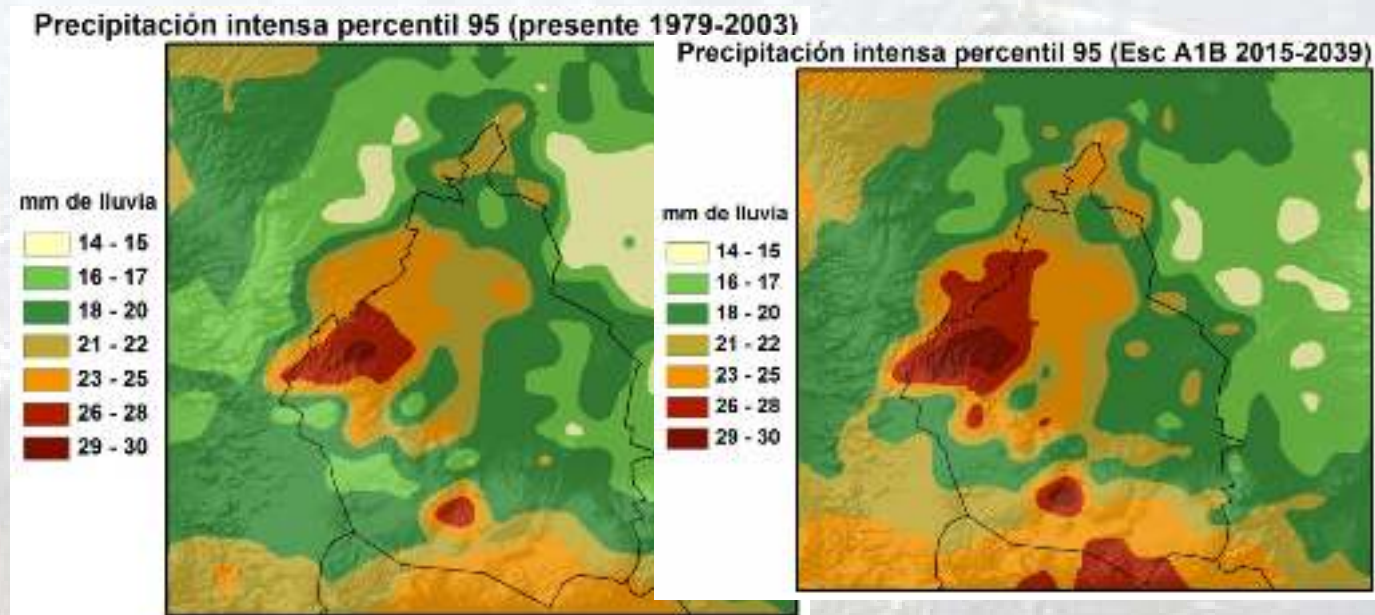
Droughts



Santiago: Extreme temperatures (2045-2065)

McPhee, et al. 2011

## Mexico City: Precipitation



Magana. 2011

# The context

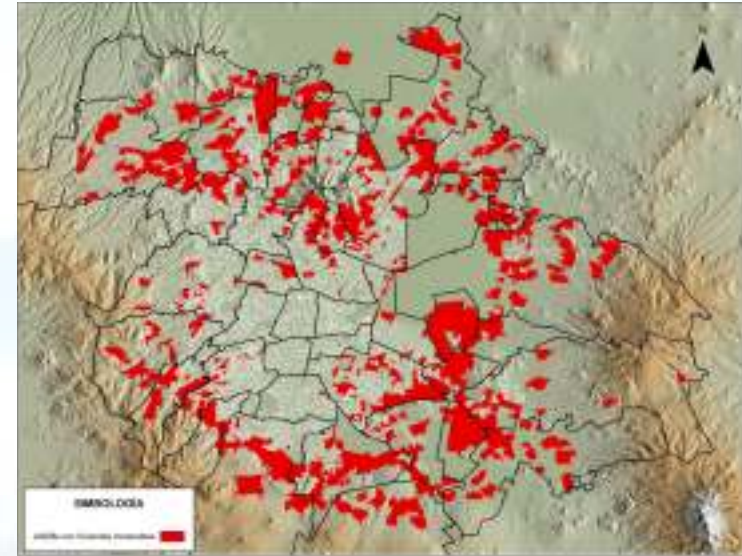
Transition to  
region-base  
urbanization

Growth into  
risk-prone  
areas

Water  
scarcity

Urbanization  
and  
Socioeconomic  
Development

México City, highly vulnerable housing

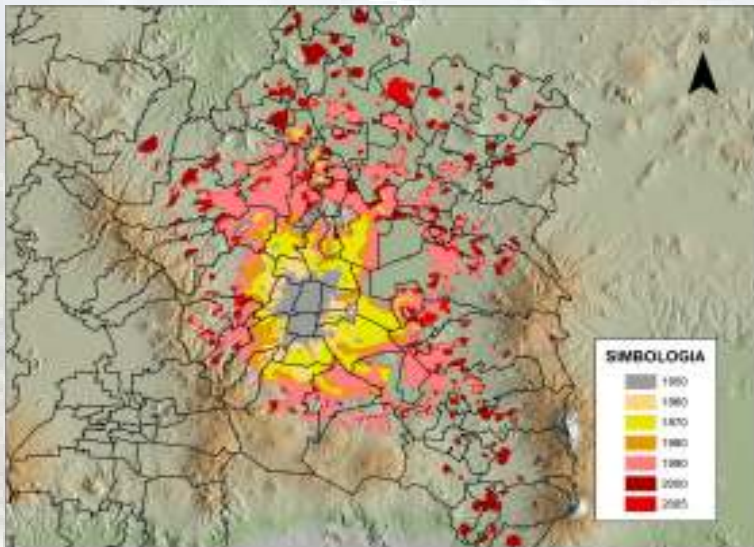


Graizbord 2011

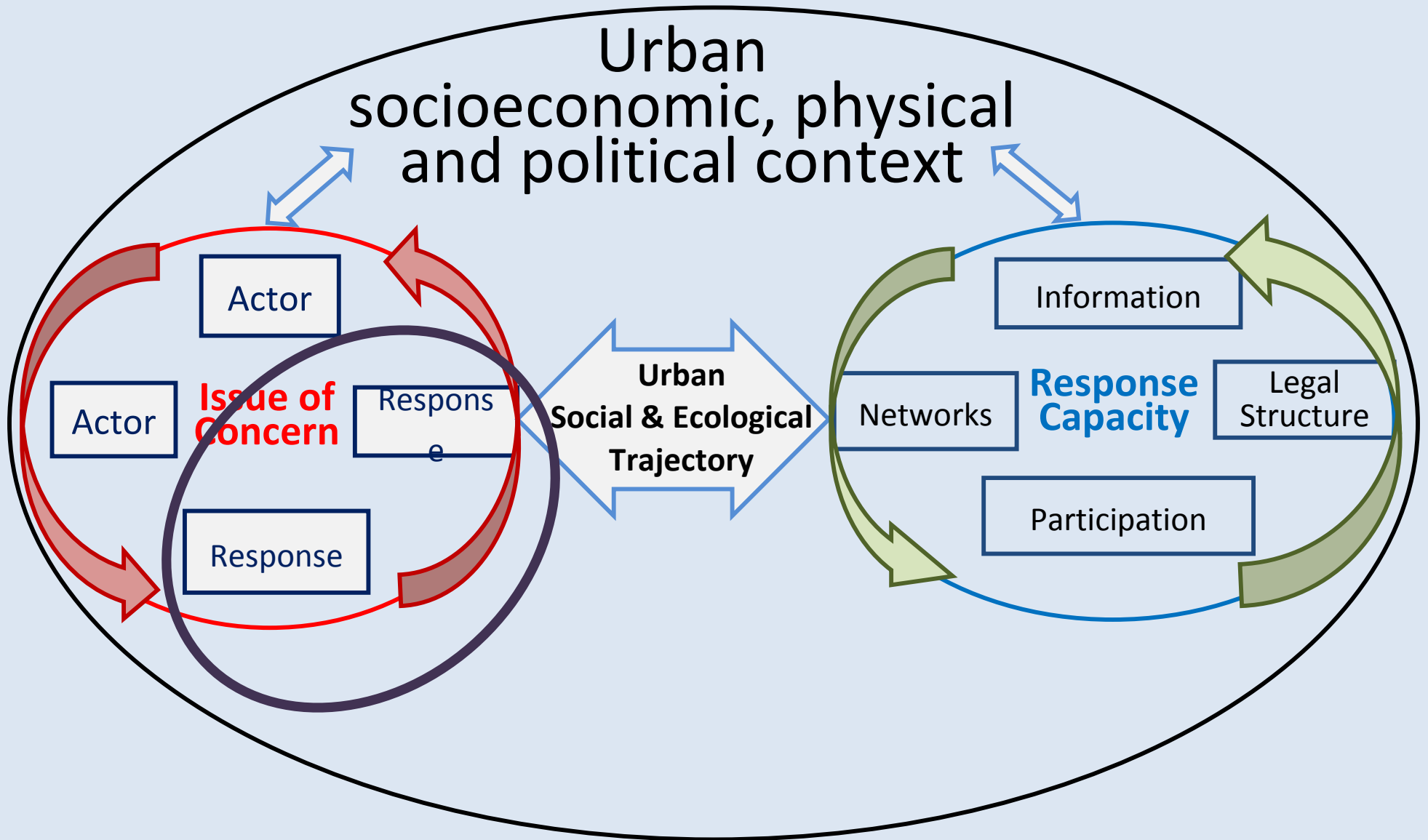
Due to population growth alone

Mexico City: 2007 - 2030 available water per capita will diminish by 11.2%

Santiago: 2005 - 2025 available water will diminish by 20.3 per cent per capita between

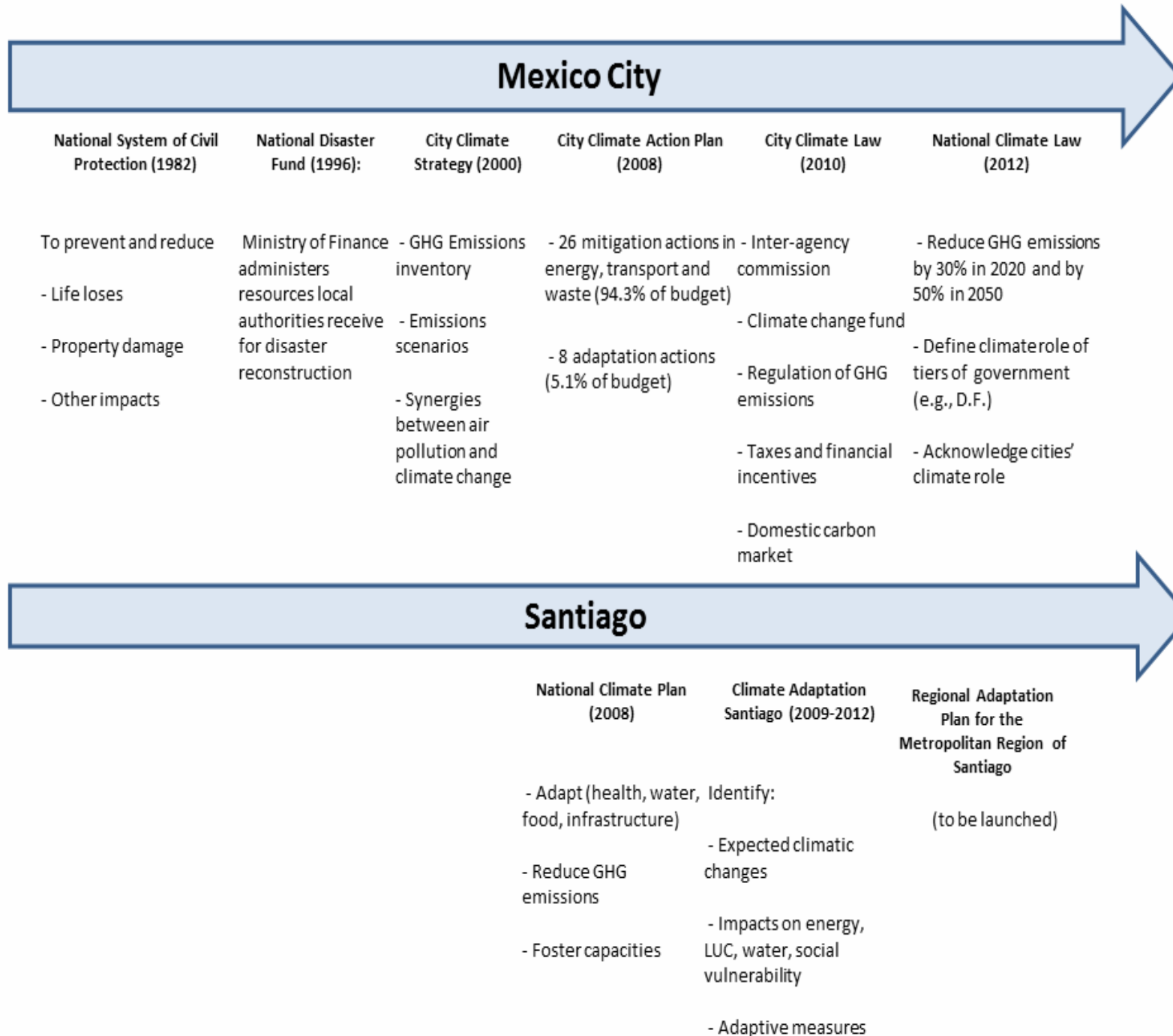


Unpacking institutional response capacity.

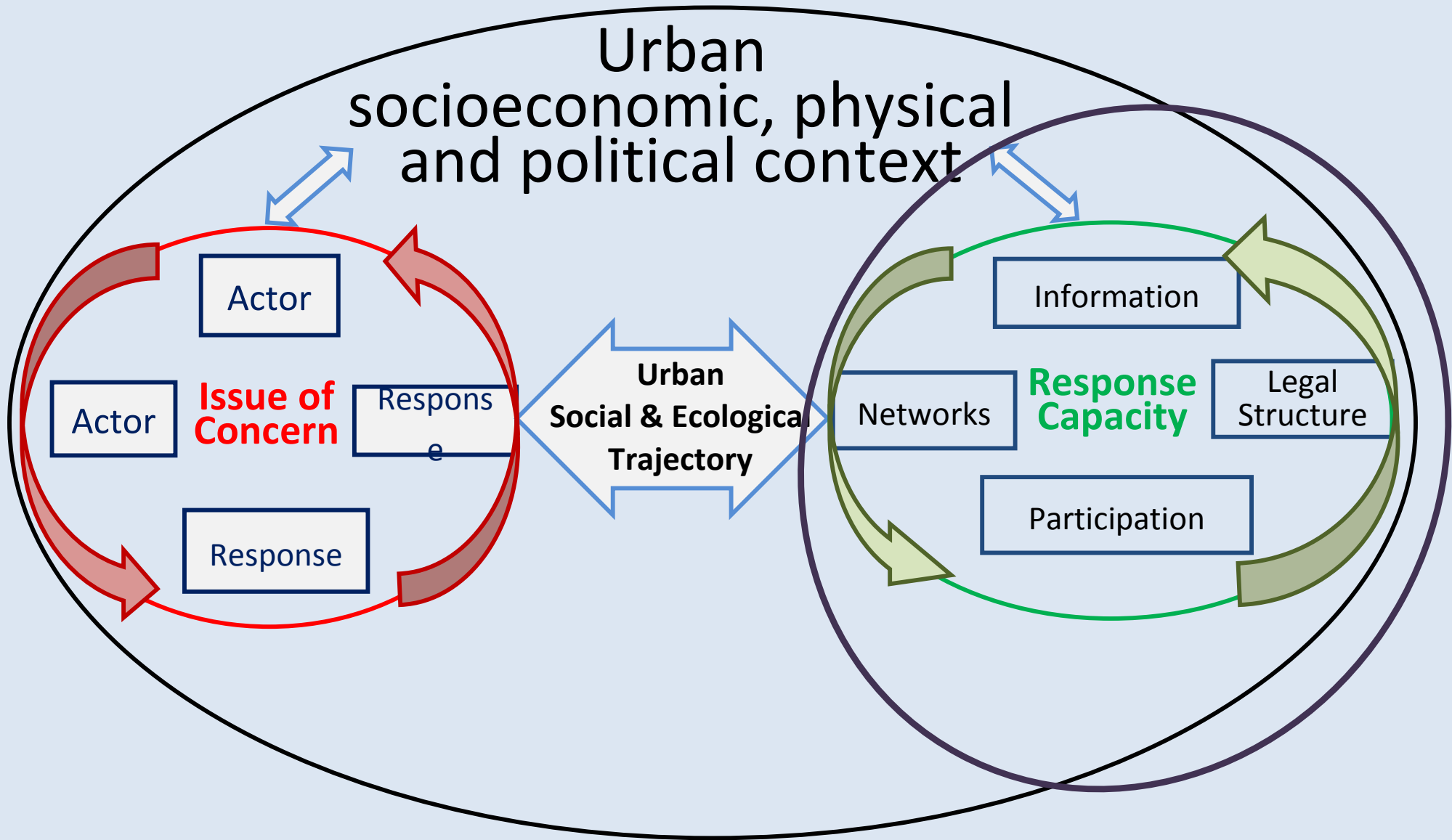




# Climate-relevant planning actions

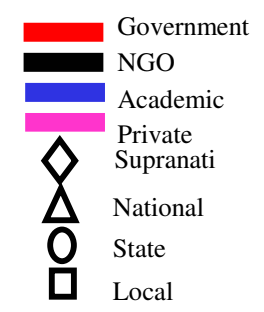
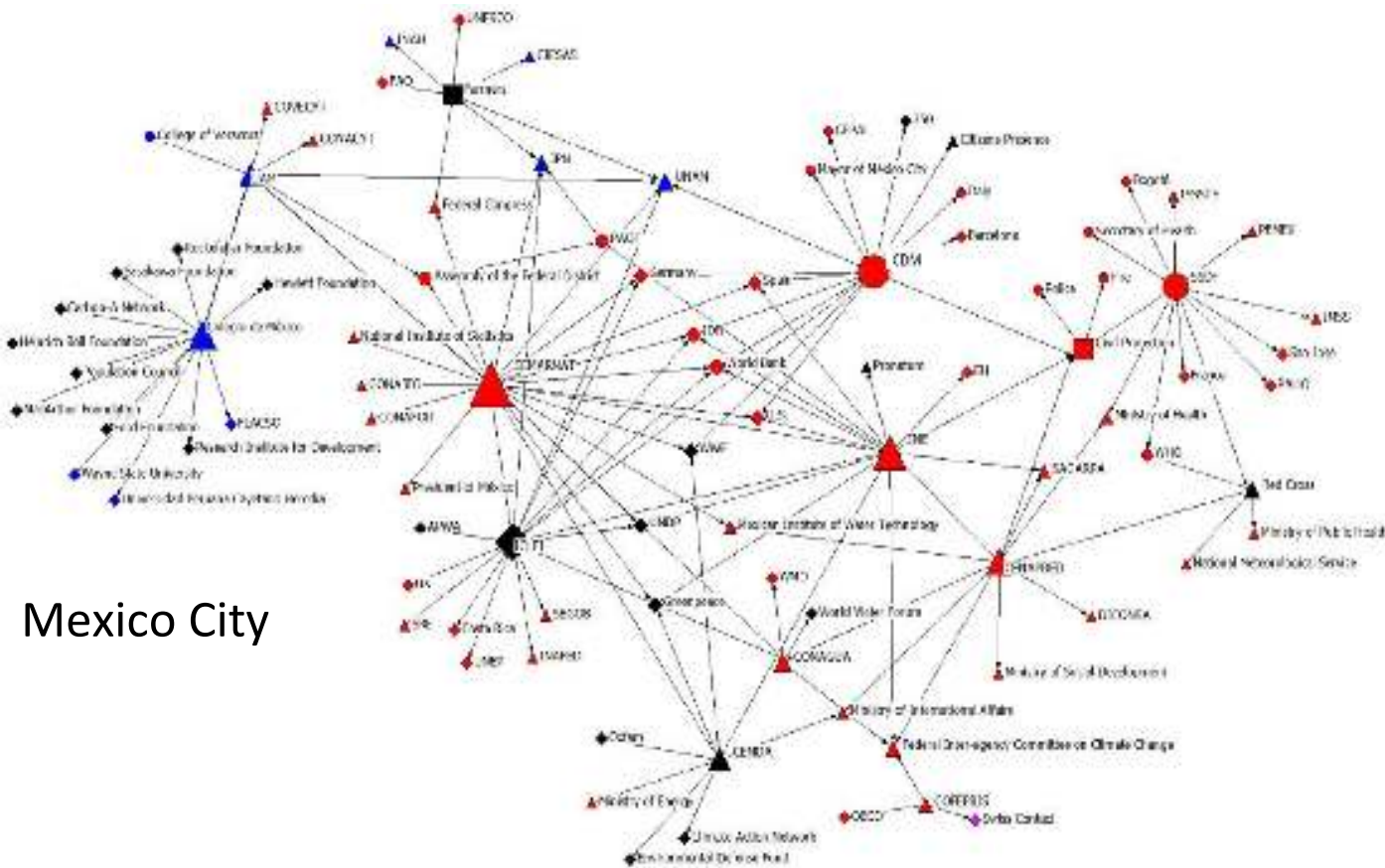


Unpacking institutional response capacity.



# Administrative Structures and *Networks*

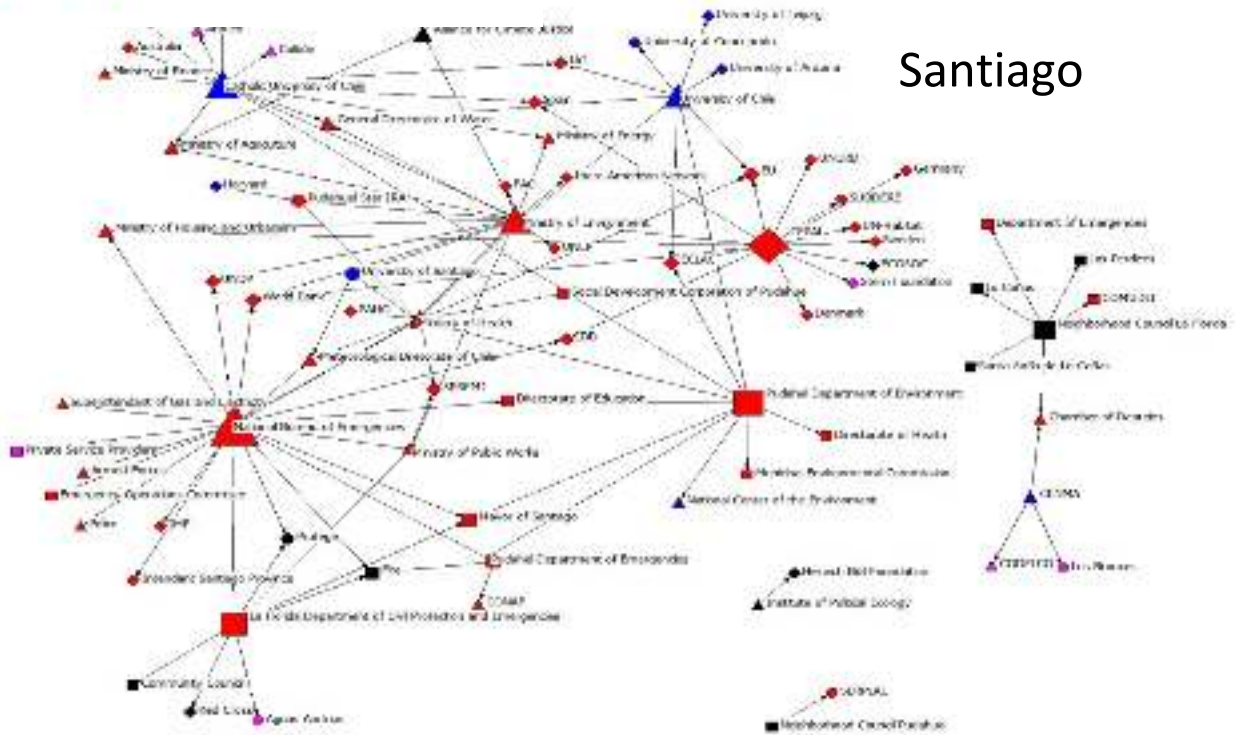
- Mexico City
- 55 Local (16 delegations and 35 municipalities or wards), 2 governors and several national ministries
- **City leadership** plus International NGOs and networks
- Term limits and political tension
- Santiago
- 52 communes, a governor, 6 lieutenant-governors and national ministries
- International NGOs and networks
- Term limits and single-party rule



Mexico City

Working networks: the size of nodes is proportional to the number of respondents reporting to work with that actor.

While Mexico City exhibits a relatively integrated network, Santiago exhibits a relatively less integrated network.



Santiago

# Use of Information

## Mexico City

- Virtual Climate Change Center
- Top-down due to perceived lack of capacity
- Want information on climate scenarios

## Santiago

- Early stages of generation
- Top-down due to perceived lack of capacity
- Want information on local impacts and adaptation responses

# Legal framework

## Mexico City

- Tension between urban growth and conservation

- Urban authorities:
  - diverse climate-relevant non-regulatory services such as water and sanitation
  - land use and zoning
- Flexibility a challenge, even during disasters
- Longer-term (reactive) tradition of disaster management

## Santiago

- Relatively more open promotion of urban growth

# Participation

## Mexico City

- Authoritarian political culture (70 years PRI gov.)

## Santiago

- Authoritarian political culture (Pinochet dictatorship, techno neoliberalism)

- Mechanisms in place tend to be technocratic and paternalistic
- Consultations, pamphlets and guidelines
- Perceptions on this are mixed
- Participation in civil protection and disaster management is more common

# Opportunities

- Leadership (and political ambition)
- Presence of
  - Influential scientific groups
  - Non-governmental and international organizations
  - Participation of local authorities in transnational networks
- Longer-term tradition of disaster management (although reactive)



# Constraints

- Centralized yet fragmented governance inhibits effective coordination
- Technocratic and top-down approach to information sharing inhibits learning and informed policy making at the city level
- Limited existing mechanisms for participation in decision making transfer to climate change planning
- Economic policies and efficiency dominate

# Next steps

- Include other cities and contexts (Buenos Aires, Bogota, ...)
- Further explore
  - Dynamic interaction of climate change planning with other institutions  
(architecture and path dependency)
  - Attributes and dynamics of responses  
(adaptiveness)



# Thanks!

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Resilient and Sustainable Cities