

# 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

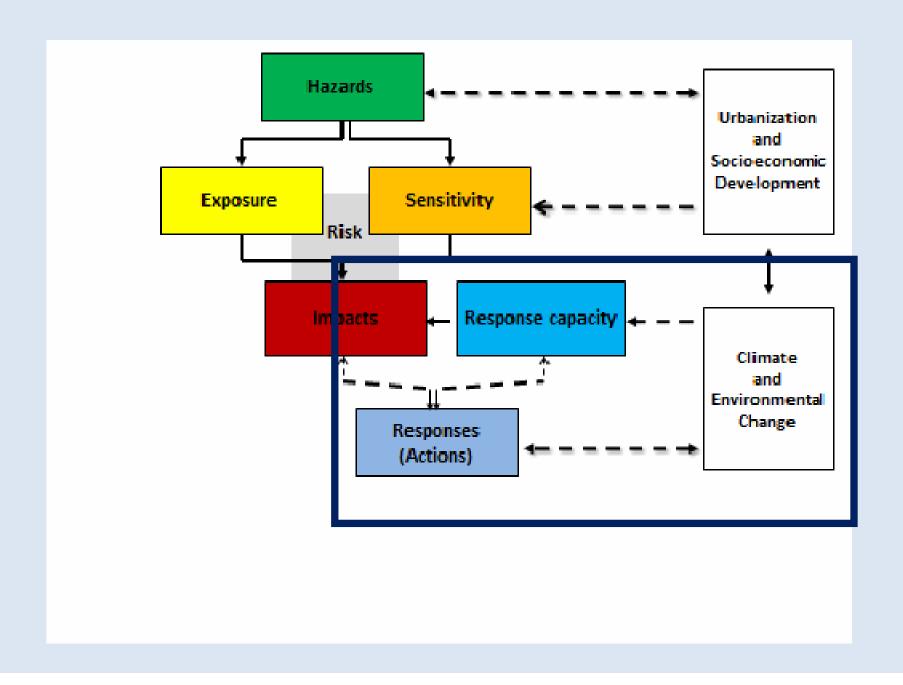
# Methods: Qualitative analysis

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

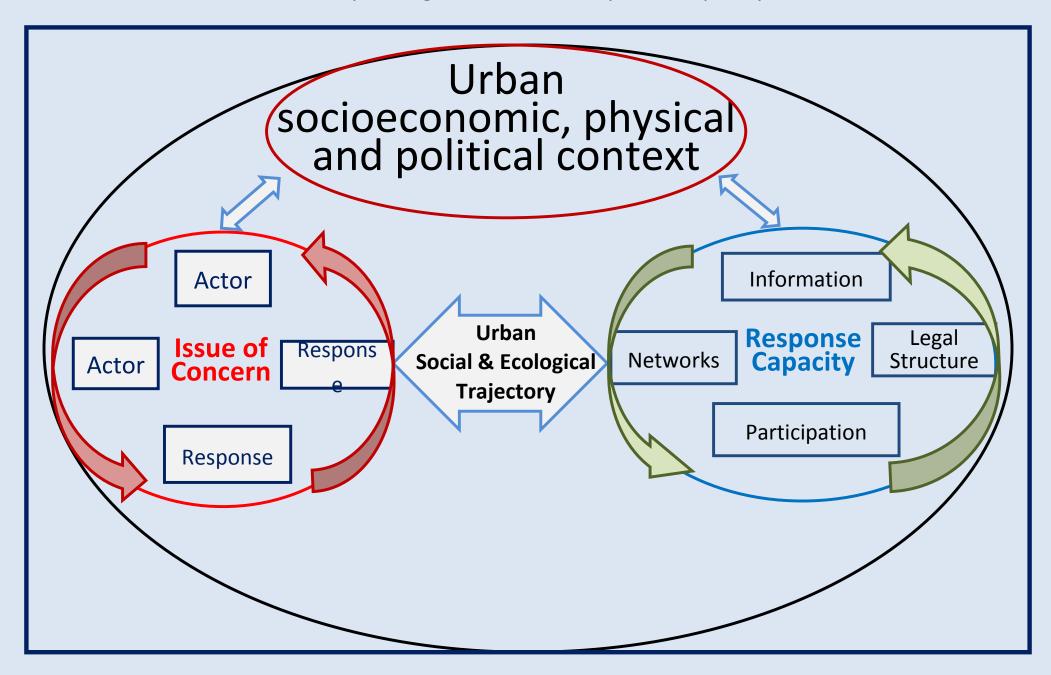


- 2. Common coding scheme in Nvivo, network analysis software (UCINet).
- 3. Supplemented with government reports and academic studies

### Urban vulnerability and Risk



#### Unpacking institutional response capacity



### Climate and

**Environmental** 

Change

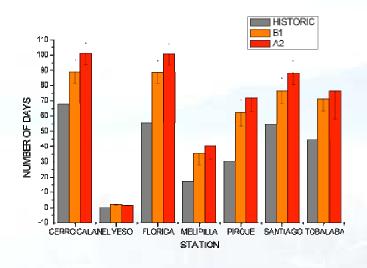
Temperature increases

Changes in precipitation

**Heat waves** 

**Droughts** 

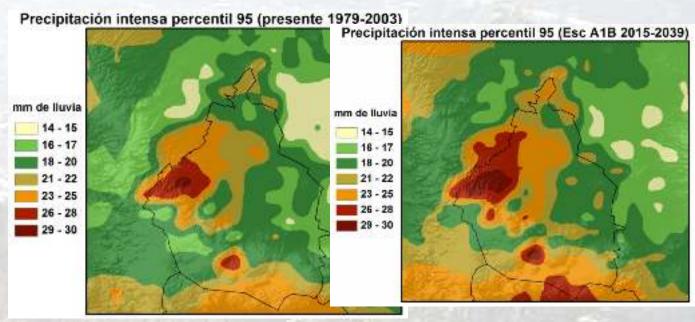
### The context



Santiago: Extreme temperatures (2045-2065)

McPhee, et al. 2011

#### **Mexico City: Precipitation**



Magana. 2011

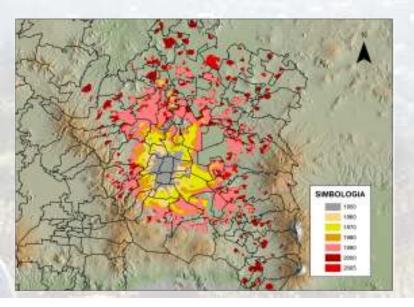
### The context

Transition to region-base urbanization

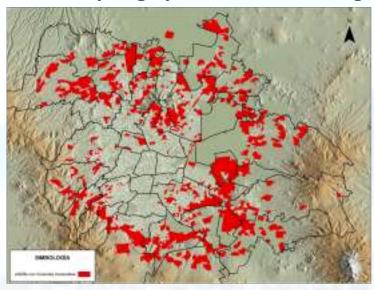
Urbanization and Socioeconomic Development

Growth into risk-prone areas

Water scarcity



México City, highly vulnerable housing



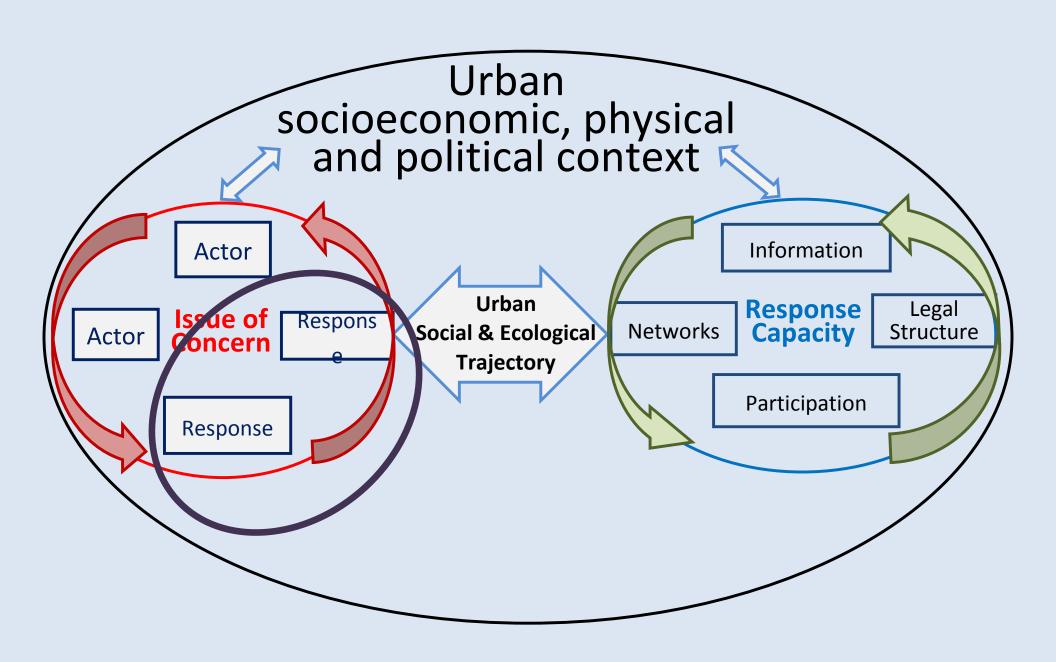
Graizbord 2011

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**

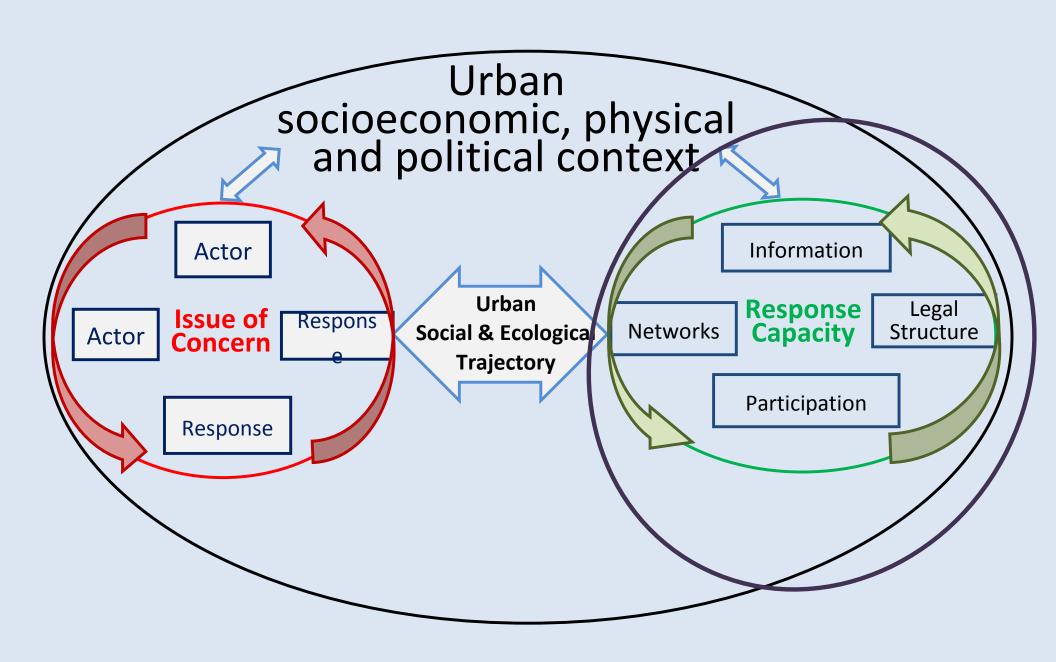
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National System of Civil Protection (1982)	National Disaster Fund (1996):	City Climate Strategy (2000)	City Climate Action Plan (2008)	City Climate Law (2010)	National Climate Law (2012)
To prevent and reduce	Ministry of Finance administers resources local	inventory	energy, transport and waste (94.3% of budget) - 8 adaptation actions (5.1% of budget)	commission	- Reduce GHG emissions by 30% in 2020 and by 50% in 2050
- Property damage - Other impacts	for disaster reconstruction	- Emissions scenarios - Synergies between air pollution and climate change		- Climate change fund  - Regulation of GHG emissions  - Taxes and financial incentives	- Define climaterole of tiers of government (e.g., D.F.) - Acknowledge cities' climate role
				- Domestic carbon market	

### Santiago

National Climate Pla (2008)	on Climate Adaptation Santiago (2009-2012)	Regional Adaptation Plan for the Metropolitan Region of Santiago
- Adapt (health, wa	ter, Identify:	
food, infrastructure	•	(to be launched)
	- Expected climatic	
- Reduce GHG emissions	changes	
	- Impacts on energy,	
- Foster capacities	LUC, water, social vulnerability	
	- Adaptive measures	

Unpacking institutional response capacity.

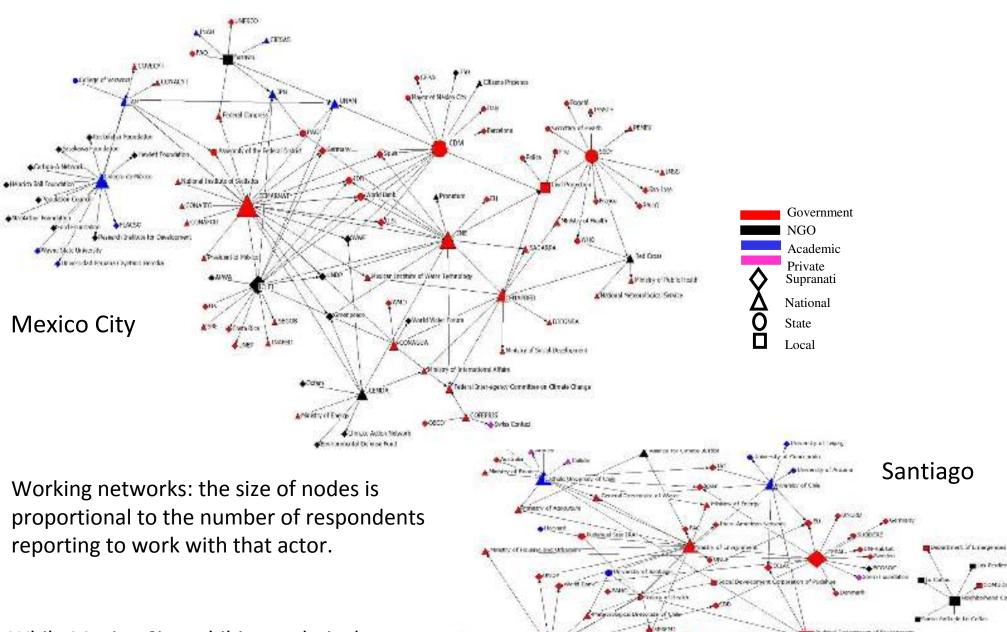


# Administrative Structures and Networks

- 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



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

### Use of Information

**Mexico City** 

Santiago

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

- 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

#### Santiago

 Relatively more open promotion of urban growth

- 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

# Participation

### **Mexico City**

### Santiago

 Authoritarian political culture (70 years PRI gov.)  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**