

The End of the Environmental Nation-State?

Climate Change and the Role of the World's Cities

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The Devolvement of Environmental Policy

- ❖ **in all arenas of environmental and natural resource management¹**
- ❖ **in many diverse countries around the world²**
- ❖ **both to subnational level (federal states, municipal authorities...) and to non-governmental agents (NGOs, business sector)³**

1. Lemos & Agrawal, 2006; Oates & Portney, 2003

2. Engel & Palmer, 2011; Andonova, 2004; Bulkeley & Mol, 2003

3. Zhang, 2012; Berkes, 2010; Andersson & Ostrom, 2008; Rabe, 2006; Sigman, 2005; Wälti, 2004; Abel & Stephan, 2000

Decentralized Climate Change Policy

Cities Around the World Take the Lead

in both Mitigation and Adaptation:

Some Recent Empirical Evidence

Mitigation

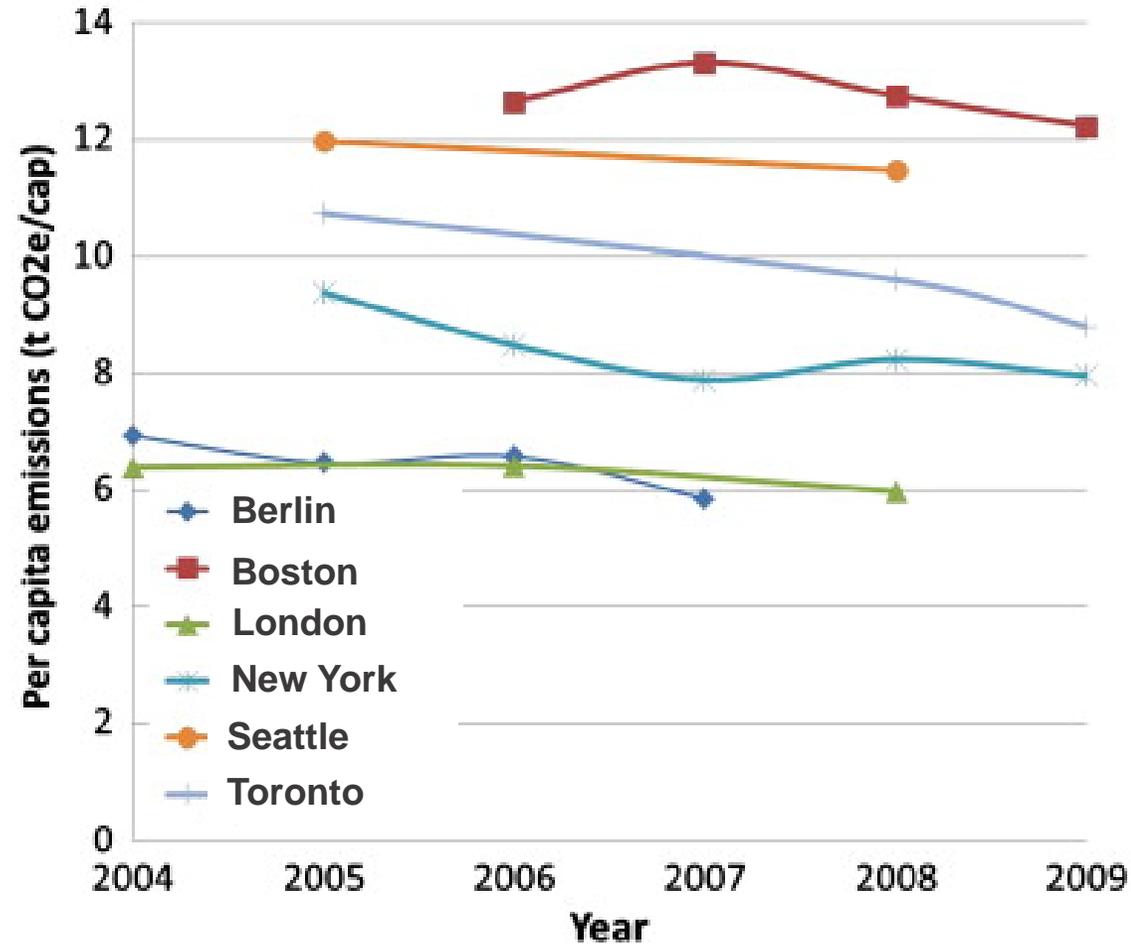
“The 58 cities now represented within the C40 account for 8% of the global population, 21% of global GDP, and 12% of global GHG emissions...”

“...4,734 climate actions have been taken by C40 cities, and another 1,465 are under consideration.”

Source: C40 ‘*Cities Baseline and Opportunities in Megacities*’ (2011) <http://c40.org/research> (accessed June 17, 2014)

Mitigation (2)

Changes in Annual Per Capita Greenhouse Gas Emissions for Six Cities



Source: Christopher Kennedy, Stéphanie Demoullin & Eugene Mohareb (2012). Cities reducing their greenhouse gas emissions. *Energy Policy*, 49: 774 – 777.

Adaptation

A global survey of 468 municipalities worldwide reveals that 68% are pursuing adaptation planning. However, only 18% are already working on implementation, whereas 37% report being only in the preparatory stages.

Source: Alex Aylett (2014). Progress and Challenges in the Urban Governance of Climate Change: Results of a Global Survey.

http://www.urbangateway.org/sites/default/ugfiles/documents/urban_climate_governance_report.pdf (accessed June 17, 2014)

Mitigation and Adaptation

- ❖ **28 cities worldwide**
- ❖ **Content analysis of official websites, municipal and other reports, publications, interviews and other documents**
- 1. Approximately 40% have already achieved local GHG emission reductions**
 - usually exceed both national mitigation targets and achievements**
- 2. Most have adopted strategies to reduce local climate change-related risks**
 - usually preliminary stages of implementation, nonetheless beyond national agendas**

Source: Avi Gottlieb (in press). Global Cities and the Decentralization of Climate Change Policy. Heidelberg: Springer.

Global Urbanization and Climate Change

- ❖ the most significant socio-demographic transformation of our times
- ❖ the population living in urban areas will increase from 3.6 billion to 6.3 billion by 2050¹
- ❖ virtually entire increase will occur in emerging economies and less developed countries² (ibid)
- ❖ currently cities consume over 60% of the world's energy and account for more than 70% of global greenhouse gas emissions³

¹ United Nations, Department of Economic and Social Affairs (2012) World Urbanization Prospects, the 2011 Revision. New York: United Nations.

² ibid

³ World Bank (2014). *Urban Development Overview*.

<http://www.worldbank.org/en/topic/urbandevelopment/overview>

Global Urbanization and Climate Change (cont'd):

The Decarbonization of Cities

- ❖ focal points of migration and hubs of productivity, employment and innovation**
 - ❖ offer scale economies for advanced infrastructure and provision of consumer goods**
 - ❖ and act as a critical testing ground for modernization, integrated technology, smart networks and behavior change**
- ➔➔ Smart urban infrastructure, urban form and transport planning are keys to both urban economic growth AND minimizing carbon emissions.**

“The End of the Environmental Nation-State?”

1. The Unfeasibility of Measuring the Aggregate Impact of Urban Climate Change Actions

- ❑ absence of life-cycle perspectives**
- ❑ problems with defining spatial & temporal context**
- ❑ differences in assigning emissions to political jurisdictions**

“The End of the Environmental Nation-State?”

2. The Problem of Global Climate Justice

“...parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities”.

Source: United Nations Framework Convention on Climate Change (1992), Article 3.1

https://unfccc.int/essential_background/convention/items/6036.php

The Three Dimensions of Climate Justice

- ❖ **Equity:** the presumed 'rights' of nations to pollute the atmosphere up to the limit of safe levels (???) of GHG concentrations. For example – based on current or historical emissions?
- ❖ **Vulnerability:** should poor countries that are existentially threatened by climate change but lack the capacities to cope be supported or recompensed? By whom and how? Based on what criteria?
- ❖ **Intergenerational justice:** The impact of climate change will linger for centuries. How are these burdens to be distributed among people who do not yet exist?

Thanks for your attention

For the full paper please contact Avi Gottlieb gottlieb@post.tau.ac.il

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