

Can the World's Cities Manage Global Change?

Avi Gottlieb

**Department of Sociology and Anthropology
and Porter School of Environmental Studies
Tel Aviv University**



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Committed Annual Savings by Commitment End Date

Total emissions saved compared to BAU

2.8 GtCO₂e by 2020

6.1 GtCO₂e by 2030

13.0 GtCO₂e by 2050

For Comparison:

Total Global GHG Emissions 2012

34.5 GtCO₂e

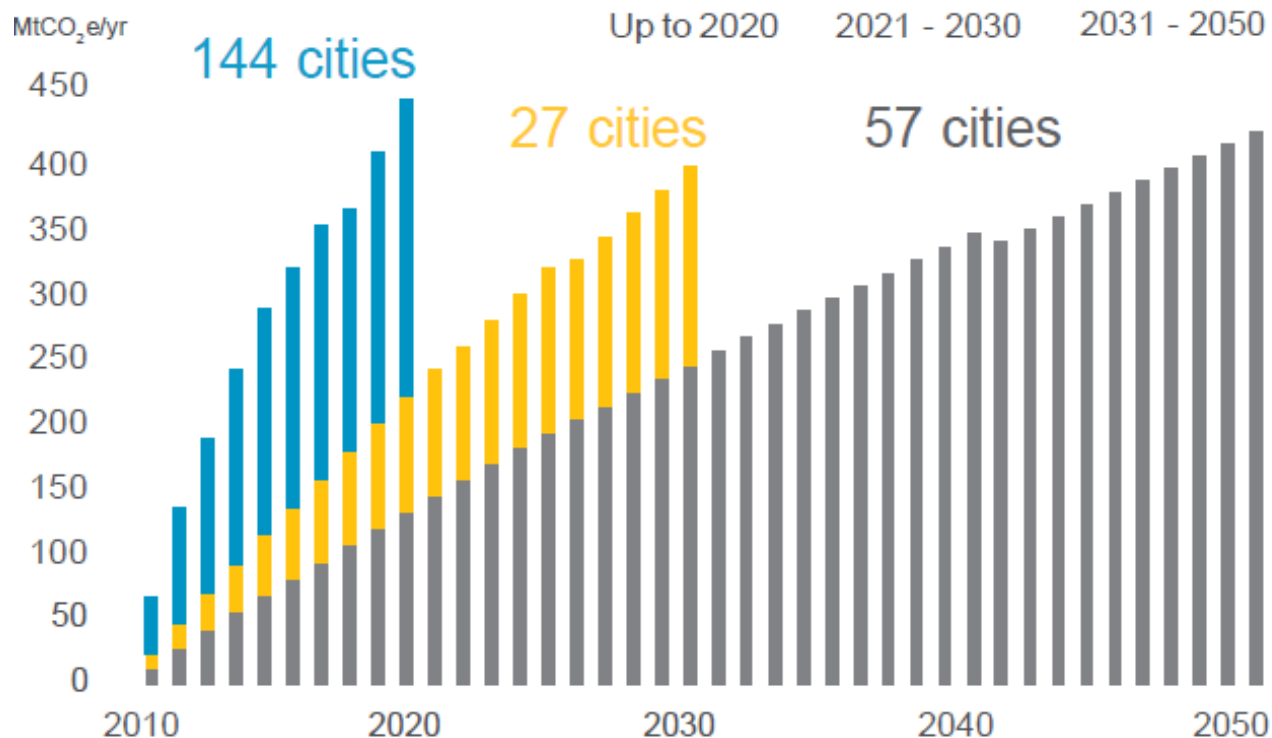
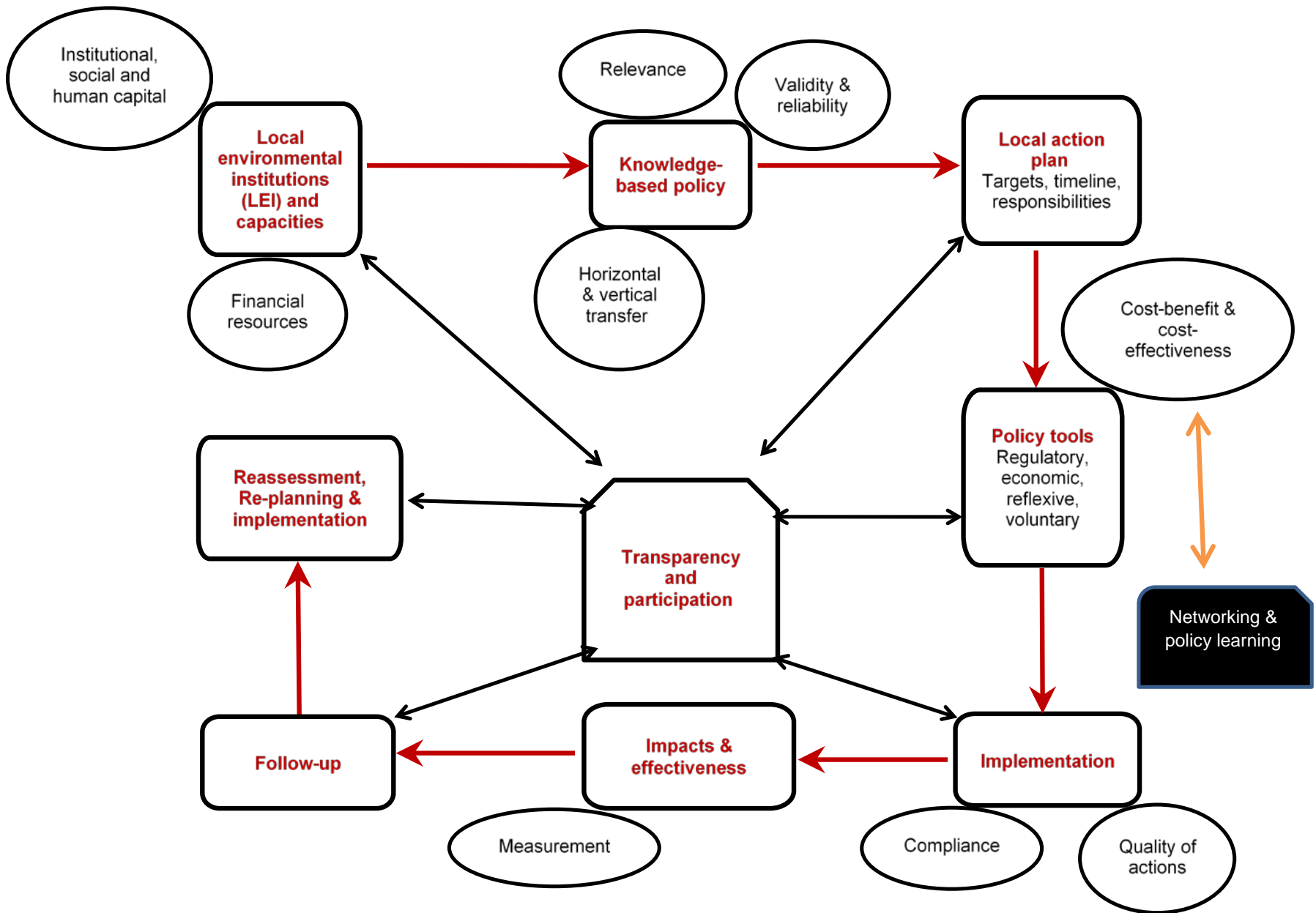
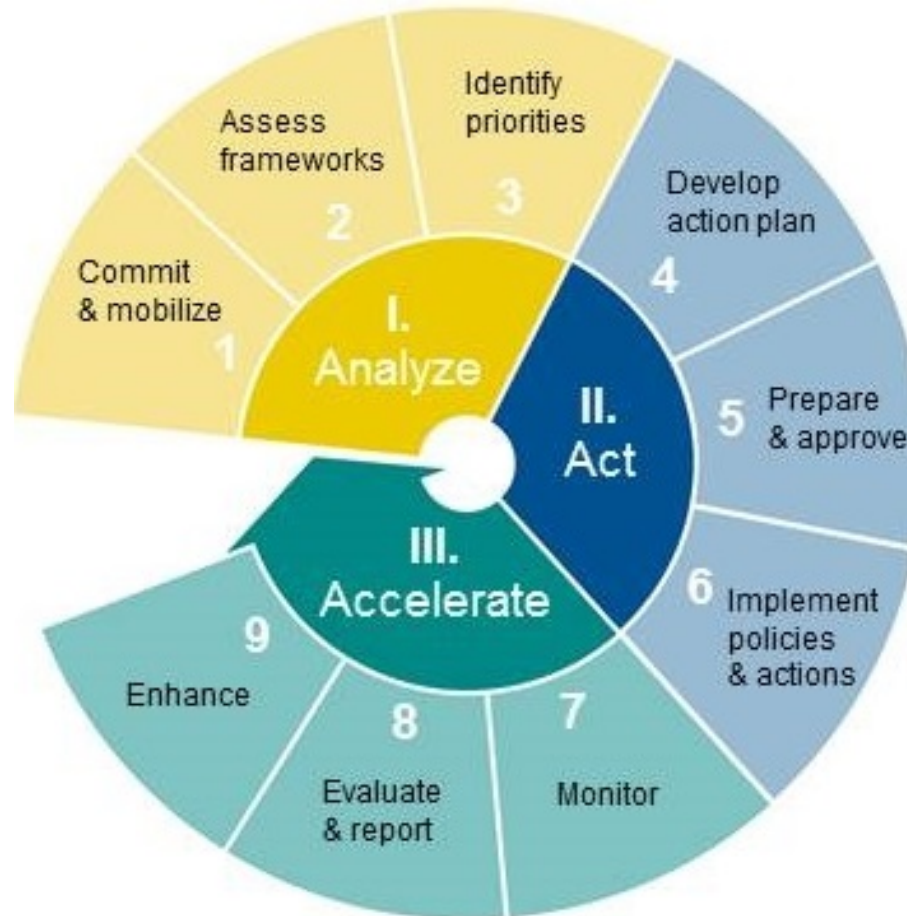


Figure 1. Effective Urban Climate Governance: Empirical Model



From: Chapter 1, pp. 7-24 in A. Gottlieb (Ed.) *Global Cities and the Decentralization of Climate Change Policy*, Springer Nov. 2015 (exp.)

ICLEI Green Climate Cities Methodology



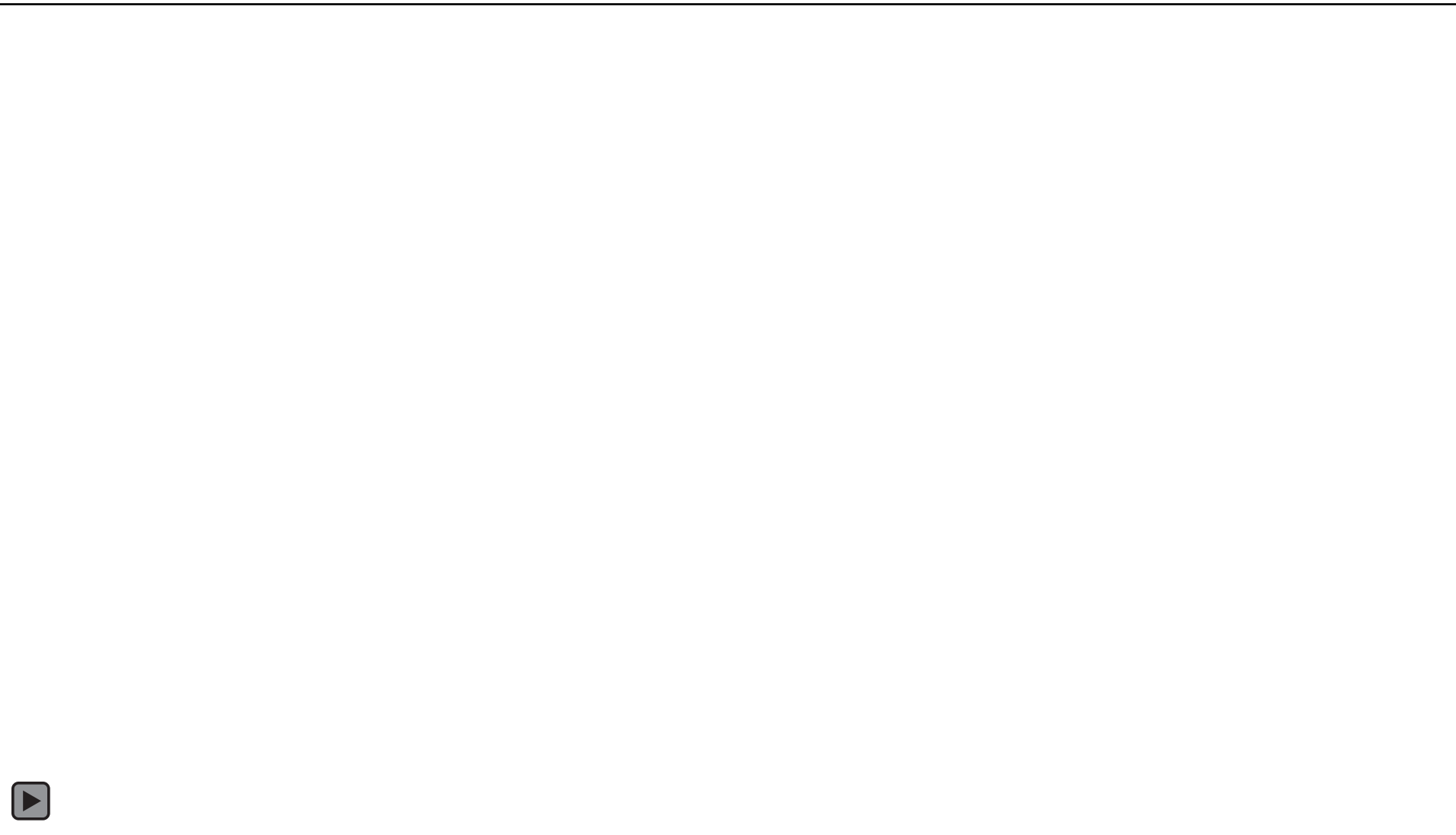
<http://www.iclei.org/activities/our-agendas/low-carbon-city/gcc.html>

Selected Coastal Cities at Risk Due to Climate Change-Related Sea Level Rise

	2005			2070	
	Population at risk	Assets at risk		Population at risk (est.)	Assets at risk (est.)
Alexandria, Egypt	1.3 million	\$28.5 billion		4.4 million	\$563.3 billion
Amsterdam, Netherlands	839,000	\$128.3 billion		1.4 million	\$843.7 billion
Bangkok, Thailand	907,000	\$38.7 billion		5.1 million	\$1.1 trillion
Guangzhou, China	2.7 million	\$84.2 billion		10.3 million	\$3.4 trillion
Ho Chi Minh City, Vietnam	1.9 million	\$26.9 billion		9.2 million	\$652.8 billion
Hong Kong, China	223,000	\$35.9 billion		687,000	\$1.2 trillion
Kolkata, India	1.9 million	\$32.0 billion		14.0 million	\$2.0 trillion
Miami, U.S.	2.0 million	\$416.3 billion		4.8 million	\$3.51 trillion
Mumbai, India	2.8 million	\$46.2 billion		11.4 million	\$1.6 trillion
Nagoya, Japan	696,000	\$109.2 billion		1.3 million	\$623.4 billion
New Orleans, U.S.	1.1 million	\$233.7 billion		1.4 million	\$1.0 trillion
New York, U.S.	1.5 million	\$320.2 billion		2.9 million	\$2.1 trillion
Ningbo, China	299,000	\$9.3 billion		3.3 million	\$1.1 trillion
Osaka, Japan	1.4 million	\$215.6 billion		2.0 million	\$969.0 billion
Qingdao, China	880,000	\$2.7 billion		1.9 million	\$601.6 billion
Rotterdam, Netherlands	732,000	\$114.9 billion		1.4 million	\$825.7 billion
Shanghai, China	2.4 million	\$72.9 billion		5.5 million	\$1.8 trillion
Tokyo, Japan	1.1 million	\$174.3 billion		2.5 million	\$1.2 trillion
Tianjin, China	956,000	\$29.6 billion		3.8 million	\$1.2 trillion
Virginia Beach, U.S.	407,000	\$84.6 billion		794,000	\$581.7 billion

Adapted from: <http://www.oecd-ilibrary.org/docserver/download/5kzssgshj742.pdf?expires=1428234193&id=id&accname=guest&checksum=0EC4F8D947FA16EE7970D218EC71ACF8>

Growth Rates of Urban Agglomerations by Size, 2014 - 2030



Uncertainties in Meeting the Global Challenge of Climate Change in Growing Mega-Cities

Exponential increase in resource consumption, including fossil energy and GHG emissions?

Recognition of co-benefits as one of the triggers of climate action?

Meeting the essential needs of growing populations – AND improving energy efficiency and promoting zero-emission economic growth at the same time?

Are models of “best practice” climate governance relevant to exponentially growing mega-cities?

ADAPTATION: access to necessary economic and human capital and technological and sociopolitical capacities?



Thank you for your attention