

3 Questions: Urban studies professor on helping cities plan for climate change

February 18 2014, by Peter Dizikes



Credit: Thinkstock

Because cities hold a growing portion of the world's population, they are an increasingly important locus of planning for climate change. JoAnn Carmin, an associate professor in MIT's Department of Urban Studies and Planning, has surveyed urban leaders worldwide on the subject. Now, in a new report commissioned by the Organization for Economic Cooperation and Development, Carmin outlines the strategies city



officials—from Tokyo to Boston to Maputo—are employing as they seek more progress. And while some cities have implemented policies, such as home energy-efficiency programs, to limit greenhouse-gas emissions in the first place, her report focuses more on how they are planning for and coping with both existing and projected climate problems.

MIT News recently spoke to Carmin, who is also a contributor to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.

Q. What are your main findings about the strategies of urban leaders on climate-change adaptation?

A. One of the most critical things that came out was how much these cities require political leadership and commitment at all levels of government. National governments need to be committed to adaptation; regional governments need to help with facilitation and coordination; and at the local level, there need to be programs that are durable. As cities move from one leader to the next, plans may rise and fall in importance. Just being able to initiate a program is a big first step, but sustaining it is a huge challenge. We've seen robust programs in cities in the U.S. under the leadership of a vibrant, committed mayor, and the next person coming in may ... have a different agenda. So the local staff end up doing what they can, but citywide programs can become marginalized.

Q. Your report underscores a tension: Cities need to find local solutions to a global problem—and often do so for different reasons. In Seattle, the water utility initiated the city's first climate work, in the 1990s,



due to supply concerns. In Copenhagen, flooding in 2010 provided a spur to action. In Semarang, Indonesia, there are major concerns about sea-level rise. These are just a few examples. So to what extent do urban officials now regard climate-change adaptation as something not following a global template, but involving local people, local experiments, and local conditions?

A. Instead of just saying, "We're going to make a plan," the traditional thing to do, some leaders have started working one-on-one with various [government] departments, building alliances and a strong foundation locally. That may sound like business as usual, but it's a critical step that is intimately related to local conditions. In Durban [South Africa], they hired a consultant who wrote a report that sat on the shelf. And quickly they realized the way to [achieve] this program of action was to spend time with representatives from across departments, and build a cadre of committed individuals.

One big topic, after Hurricane Sandy, is engineered measures to protect our cities, such as seawalls and floodgates. But we're also seeing people experiment with new technical approaches as well as ecological and other types of non-structural measures, often planning in a more flexible way so that they can account for uncertainties. For instance, in Copenhagen, it would be costly to upgrade the sewer system to address projected increases in rainfall. Instead, underground water reservoirs were built which connect to surface channels to improve rainwater collection. This helps prevent future urban floods, facilitates wastewater reuse, and reduces pressures on the existing sewer system. Innovative processes can include institutional mechanisms such as Quito's creation of an inter-institutional committee for the metropolitan area that



includes high-level committee representatives as well as academic and citizen counterparts and Seattle's regulations limiting new constructions in floodplains.

People know climate projections will change. Rather than saying, "We can't do anything until we have certainty," they're saying, "Let's work with what we know now, but work with the uncertainty in mind." Urban leaders are savvy in saying this isn't simple. I think we're seeing that cities are becoming much more individualized in how they're approaching <u>climate change</u> ... and I think to have strong gains, a program really has to be tailored to a city.

Q. What are your other main recommendations for urban leaders on this issue?

A. It is important that that climate data are available, so that there's information that can help support adaptation. We're also seeing a lot of cities really building stronger and stronger ties with the local research communities, and I think that's a key lesson. Rather than just bringing in external consultants, building local ties is providing an ongoing exchange between those who are doing the science and those who need the data. Sometimes we forget about the role of the university or the scientific community in the location itself. In Cape Town, New York City, and Quito, they built different governmental panels [on climate change]: Some [represent] the business community, or utilities, or governments at different levels, but they also have panels composed of academic researchers, and there's a lot to be said for that.

In addition, as monitoring and reporting gain in importance, cities should not be asked to create entirely new systems to report on adaptation, because that then takes away the capacity for doing the work itself. Most important is the explicit commitment local officials make, [for instance]



in policy statements, public discussions, and local newspaper interviews. Emphasizing that adaptation is important goes a long way for credibility. And being flexible is hugely important, so that there's a robust toolkit being used going forward.

This story is republished courtesy of MIT News (web.mit.edu/newsoffice/), a popular site that covers news about MIT research, innovation and teaching.

Provided by Massachusetts Institute of Technology

Citation: 3 Questions: Urban studies professor on helping cities plan for climate change (2014, February 18) retrieved 27 April 2024 from <u>https://phys.org/news/2014-02-urban-professor-cities-climate.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.