



Mayor Bloomberg delivers a speech accepting his role as chair of the C40 on 21 September 2010.

SPENCER T. TUCKER

NEW YORK CITY OFFICIALS COLOUR THE BIG APPLE GREEN WITH INNOVATIVE POLICIES

Climate change places new demands on policy makers

How can you frame policies on such an uncertain subject as climate change? This is the big question that confronts policy makers in the 21st century. Cities often turn out to be surprisingly flexible and innovative in their approach. New York City is a good example.

BY MAARTJE SMEETS

It was not without reason that New York City Mayor Michael R. Bloomberg was elected in late September 2010 as the new chairman of the C40. This is a network in which 40 major cities are combining their energies and knowledge to lower their CO₂ emissions and adapt to the consequences of climate change (see box).

New York City leads the way in adaptation and mitigation. “While global warm-

ing clearly requires action at the national and international levels”, Bloomberg said when accepting his role as chair of the C40, “those of us in city government have a responsibility to act boldly and quickly to address these problems. No one has a monopoly on good ideas, and the C40 cities, by working with one another on innovative carbon reduction strategies, have an opportunity to show the world what is possible.”

It saves taxes

In 2007 New York launched the long-term *PlaNYC*, which has already led to a 9% reduction in CO₂ emission. New York City has great ambitions in the field of water management, too. In late September 2010 it launched its Green Infrastructure Plan, which will improve water management on all fronts in and around the city. Approximately 21 billion USD has been allocated to water system capital projects. Part of the plan is to utilize ‘green infrastructure’ to improve the quality of waterways around New York City by capturing and retaining storm water so as to reduce sewer overflows. Severe rainfall, which will occur more frequently as the climate changes, often fills the old New York sewer system to capacity, so a mix of storm water and waste water must be discharged into New York Harbor. The new plan will reduce sewer overflows into waterways by 40% by 2030 by capturing more storm water. The plan will reduce the City’s long-term sewer management costs by 2.4 billion USD over the next 20 years, helping to hold down future water bills.

Green and grey

Steven Cohen is Executive Director of the Earth Institute at Columbia University. He



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New York's Green Infrastructure

Examples of green infrastructure projects include blue roofs and green roofs, which use mechanical devices or vegetation to prevent roof water from draining too quickly; porous pavement on parking lots, which allows water to seep through; tree pits and street-side swales for roadways, which allow water to pool in underground holding areas; wetlands and swales in parks; and rain barrels in some residential areas.

is a critical observer of New York's 'green' ambitions. In an open letter to the Huffington Post, Cohen calls the Green Infrastructure Plan a good example of the sort of sustainability management that climate change demands. In his view, sustainability developments require managers to move beyond an understanding of an organization's financial, human and strategic resources. "Managers", Cohen states, "must develop a more sophisticated understanding of their organization's use of resources and their impact on the ecosphere. The move from reliance on 'grey infrastructure' to the combined use of 'green' and 'grey' techniques is an indication of the growth of sustainability management in New York City's government. My hope is this represents the beginning of a trend that will expand as we learn more and as our large institutions adapt creatively to the challenges of growing our economy while preserving our planet."

In times of climate change, major, expensive infrastructure projects like the New York Green Infrastructure Plan demand a new, flexible approach. Over the long term, after all, policy makers are faced with a big, unstable factor – climate – for which plans must be continually modified over the years. Caswell F. Holloway has been appointed by mayor Bloomberg to lead New York's department of environmental Protection. "For the plan to truly succeed, we will need to work in a creative collaboration with our regulators and stakeholders now, and for many years to come. The tra-

ditional enforcement dynamic must give way to a partnership model that demands success, but is flexible enough to accommodate change along the way."

Under the current grey infrastructure plan, the City would invest USD 6.8 billion in traditional sewer infrastructure. As an alternative, the NYC Green Infrastructure Plan will invest 2.9 billion USD in grey infrastructure and 2.4 billion USD in green

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infrastructure – a total of 5.3 billion USD. The funding for the green infrastructure plan includes 900 million USD from new development, bringing the total savings for the City's water customers to 2.4 billion USD. By making the costs and benefits so clear at such an early stage, the city is

recruiting support among both the residents and the business community. Actual, concrete projects are also attracting support for the policy. The city has more than 30 demonstration projects to test the performance and costs of green infrastructure over time. A robust monitoring programme is measuring and analyzing the effectiveness of each of these demonstration projects (see box).

Demonstration projects like these are very important for the C40 network. Simon Reddy is C40's Executive Director. According to him, major metropolitan regions are setting to work practically and creatively to make their policies 'climate proof'. It is national policy that puts a brake on their ambitions and the possibilities open to them. This is why C40 made an urgent appeal to national governments at the climate summit in Copenhagen. Reddy: "Engage with city leaders on climate change action, since so many cities have answers ready to be implemented at a national scale. Empower cities with greater authority over sectors responsible for emissions. And resource them with the finances, or the power to raise funds for these programmes to reach their full potential. How cities can best work with their national governments is something we all need to figure out, and fast. They need to understand that while national governments can set the international targets within Kyoto it will be down to the cities to deliver, because cities are by far the biggest source of greenhouse gases." ■



C40

In 2005 Ken Livingstone (former Mayor of London), saw the need for an organization to act as a catalyst for action at city level. Cities consume over two-thirds of the world's energy and account for more than 70% of global CO₂ emissions. The C40 cities and their metropolitan areas are home to 393 million people and involve USD 8 trillion in economic activity; they are responsible for over 2 billion tons of greenhouse gas emissions annually. The following cities are members of C40: Addis Ababa, Athens, Bangkok, Beijing, Berlin, Bogotá, Buenos Aires, Cairo, Caracas, Chicago, Delhi, Dhaka, Hanoi, Hong Kong,

Houston, Istanbul, Jakarta, Johannesburg, Karachi, Lagos, Lima, London, Los Angeles, Madrid, Melbourne, Mexico City, Moscow, Mumbai, New York City, Paris, Philadelphia, Rio de Janeiro, Rome, São Paulo, Seoul, Shanghai, Sydney, Toronto, Tokyo and Warsaw. The C40 also has 19 affiliate cities selected for their pro-active or innovative climate policies: Amsterdam, Austin, Barcelona, Basel, Changwon, Copenhagen, Curitiba, Heidelberg, Ho Chi Minh City, Milan, New Orleans, Portland, Rotterdam, Salt Lake City, San Francisco, Santiago de Chile, Seattle, Stockholm and Yokohama.