SUSTAINABILITY IN AMERICA'S CITIES

Sustainability in America's Cities

Creating the Green Metropolis

Edited by Matthew I. Slavin

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FOREWORD

How things have changed. It wasn't too many years ago that the idea of a sustainable city in the United States or elsewhere was held to great ridicule as impossible to define and unrealistic to attain. Although these issues are still debated, there is today a much deeper understanding of sustainability in cities than ever before. What seemed to some like a fad just ten or fifteen years ago seems like serious and enduring public policy today.

Although cities' interest in the pursuit of sustainability has waxed and waned, there are today no fewer than fifty major U.S. cities that have come to the realization that the pursuit of some aspect of sustainability warrants explicit attention as a matter of local public policy. Some cities have looked to sustainability policies as a mechanism to achieve greater social and environmental equity (Agyeman 2005; Pearsall and Pierce 2010). Others have seen sustainability as a way of making a measurable contribution to fighting climate change in the face of Washington, D.C., political institutions unwilling to take on this issue (Betsill and Bulkeley 2006). Still others have come to realize that sustainability (especially "green" and "smart growth") approaches to local economic development may well offer pathways to livability where traditional approaches to economic development now fail (Fitzgerald 2010; O'Connell 2009). Washington, D.C., has even seemed at times to be moderately willing to be supportive, particularly

through the Obama administration's dual focus on "green jobs" and the economic stimulus of 2009, although congressional elections in late 2010 cast doubt upon the durability of this support. Still, cities sometimes have responded by recognizing that they can get more federal aid for economic development when they propose to create green jobs. Regardless of the specific motivation, sustainability in cities seems alive and well, here to stay.

Early city efforts were largely grounded in defining sustainable indicators projects. The activities of Sustainable Seattle, Inc., in the late 1980s were focused on creating an indicators project (AtKisson 1996), and many other cities followed suit. Sometimes alternatively referred to as indicators of livability or indicators of progress, these projects seemed to percolate from the grassroots. They rarely originated in city government, but rather got their impetus from resident groups and organizations. They appeared motivated by the dual assumption that developing an indicators project, which specified measures of important sustainability variables and monitored them over time, would necessarily produce greater sustainability, and measurement of progress would push reluctant or resistant city governments into appreciating the pursuit of sustainability (Brugmann 1997).

Today, city governments themselves have taken up the charge, often incorporating the work of resident and nonprofit organizations and sometimes defining a need where resident organizations have not (Portney and Berry 2010; Portney and Cuttler 2010). Such city efforts, along with those originally spearheaded by grassroots and neighborhood organizations, focus on specific public policies that are thought to be consistent with trying to become more sustainable (Jepson 2004; Zeemering 2009). Cities have adopted and implemented policies and programs that convert their vehicle fleets to alternative fuels and hybrids; they encourage or require green building, especially greater energy efficiency; they provide funding for homeowners to retrofit their buildings for energy efficiency; they adopt policies to protect and improve the quality and accessibility of their water; they try to reduce the amount of carbon and other air emissions originating in their boundaries; they change the way they practice land use management through zoning to emphasize highest and best environmental and ecological uses rather than highest and best economic uses; they practice mixed use development and urban in-fill housing to encourage greater density and decreased energy consumption; they offer alternative food sources through sustainable agriculture, food policy systems, and community gardens; they try to get residents out of the personal motor vehicles and to look for more efficient alternatives, in-

cluding public transit; they try to clean up hazardous brownfield sites, and to limit their residents' exposures to known hazardous materials; they sometimes even work with other metropolitan and regional municipalities to deal with externalities that are often ignored, such as sprawl; they protect open spaces and parklands; they engage in strategic economic development to encourage more green jobs—employment that is not associated with environmental degradation; and many other activities and programs. These programs have actually been adopted and implemented. And they do these programs in order to grow their local economies, not to limit them. This is not pie-in-the-sky wishful thinking.

With all the activities going on in cities to work toward becoming more sustainable, perhaps the most surprising fact is that the empirical analysis of those activities is still in its infancy. While increasing numbers of cities have bought into the idea that they can become more sustainable places, and into the idea that there are good and valid reasons for doing so, much of the written work on sustainable cities takes the form of outright advocacy, almost at times preaching a pure gospel rather than making clear empirical arguments concerning what works and what doesn't in cities' actual experiences. This is beginning to change. Rather than being told what could be done or what should be done, research is starting to address the direct issues of what kinds of programs and policies have been tried, which have worked, how they have worked, and why they might work (or not work) better in some contexts and cities than others.

There is a real thirst among city leaders to learn what other cities are doing, to understand what some refer to as “best practices.” Yet research on sustainability in U.S. cities has certainly not advanced to the point that such best practices can readily be identified. There are many works that describe programs that cities could pursue, but fewer works that give detailed accounts of how cities actually develop such programs. Cities' practices can be identified, but without some assessment of how well these practices work in different settings, prescriptions seem premature at best. And so, as described below, this book jumps into the void, providing detailed information heretofore not readily available. But more on this later.

There is much research that needs to be accomplished in the realm of sustainable cities. There are many empirical questions that need to be addressed, and this book takes us down the path of starting to fill some of those gaps. There are very basic questions: How can sustainability policies be designed to ensure that they do not cost more than unsustainable alternatives? How can local

officials be convinced that making longer-term investments in sustainable alternatives saves money in the long run? Which specific policies and programs seem to work best? Are there more (or less) effective ways of implementing sustainability programs? Are there ways to effectively influence local officials to cooperate and coordinate with surrounding municipalities? Can sustainability be pursued, as a matter of local public policy, in ways that definitively support both short-term and long-term economic growth? To what extent, and in what ways, do local policies contribute, in some measurable way, to making cities and metropolitan areas more sustainable? There is much common wisdom about most of these issues, but there is surprisingly little systematic research on these and a whole host of related issues.

An important part of moving sustainable cities research along requires in-depth analysis of specific issues, cases, and cities. That's what this book does. Each chapter in this book provides a city-specific look at a program or initiative that addresses a particular aspect of local sustainability. Each chapter situates its analysis in a particular line of inquiry, helping the reader understand why this "case" is important, effective, and potentially transferable. I also have some thoughts about how to situate these cases, and how to relate them to other research and pressing questions.

In chapter 2, Matthew Slavin and Kent Snyder present an analysis of the policies and programs that the city of Portland has developed to address climate protection through reducing greenhouse gas emissions across the city. This case study is important for several reasons. Portland has probably done more, to greater effect, than any other city in the United States. To understand what a city can do, in a comprehensive and integrated way, this chapter provides a level of detail that should help inform similar efforts elsewhere. Contrary to much common wisdom, it also provides evidence that when cities choose to address air emissions problems, they can be pretty successful. In chapter 3, Christopher DeSousa provides a firsthand account of sustainable redevelopment that has been done in Milwaukee. With the demise of much of its manufacturing employment base, and the abandoned buildings and properties that came with this demise, Milwaukee embarked on an effort to redefine the design and development of a large section of the city in ways that are consistent with the pursuit of sustainability. For those who do not have a vision of what such redevelopment might look like, this chapter is must reading. In chapter 4, Jonathan Fink examines efforts to develop green technology industries as a major strategic part of

the local economy in Phoenix. He makes the case that such strategic efforts do not guarantee success in terms of economic development. Economic development is difficult under any circumstance, and building a green economy is neither easy nor necessarily more successful than more traditional economic development.

In chapter 5, Gerrit Knaap and colleagues at the University of Maryland take a focused look at LEED-certified green building in the nation's capital. They point to Washington, D.C., and its environs as being at the forefront of the movement to plan and develop LEED buildings, and how the green building movement is the product of a convergence between public sector policy makers and private sector property developers. While the progress in constructing LEED buildings has been significant, the authors suggest that the greatest benefit in terms of creating sustainable cities in the future may be extending the principles underlying LEED more broadly to the design and development of area-wide patterns of land use, density, and transportation and urban infrastructure.

Chapter 6, by Aaron Golub and Jason Henderson, addresses the very important issue of what can be done to get people to be less dependent on their personal motor vehicles, as illustrated in the case of San Francisco. Unfortunately, many cities concede that this challenge is impossible to address. Particularly because of the link between motor vehicle use and air emissions, finding alternative ways for people to be geographically mobile is of great importance. This chapter provides a wealth of possibilities for cities contemplating their alternatives. Just as motor vehicles represent major contributors to air emissions, so too does the production of energy (especially electricity). Chapter 7, authored by Matthew Slavin, Doug Codiga, and Jason Zeller, focuses on what Honolulu has accomplished in its effort to become energy-independent through developing renewable energy sources.

Philadelphia, in its larger metropolitan context, provides a platform for Lynn Mandarano to present in chapter 8 the excellent case of what has been done to manage storm water in a sustainable way. Philadelphia represents an important case study of sustainability broadly, particularly because it has come such a long way in a relatively short period of time. Largely since the election of Michael Nutter as mayor, the city has taken on tough management and policy issues related to sustainability, including watershed, wastewater, and storm water management. Like Philadelphia, New York City has made incredible strides in its effort to try to become more sustainable. Anchored by its PlaNYC strategic plan,

with strong support from Mayor Michael Bloomberg, New York has arguably done more to achieve sustainability results than any city in North America. It is fitting that two chapters should be devoted to specific elements of this effort. In Chapter 9, P. Timon McPherson provides a case study of what that city has done to protect and improve urban green space through urban forest restoration. And in chapter 10, Nevin Cohenn and Jennifer Obadia take a close look at how New York has sought to address food security and sustainable food systems through greening the food supply.

Individually, these chapters represent important, in-depth analyses of specific cities' programs. Taken together, they build a rich picture of the great opportunities have to affect their sustainability and livability. City leaders should find these contributions to be very helpful as they contemplate whether, and how to, address sustainability in their own places and contexts.

—Kent E. Portney, Tufts University

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Publishing an edited volume is never easy. This is particularly true when addressing a subject as wide-ranging, multidisciplinary, and rapidly evolving as urban sustainability. Reflecting this, this book brings together a number of scholars and practicing professionals who have drawn upon their expertise to contribute original, previously unpublished empirical studies of how large cities in America are working to make themselves more sustainable. Above all, I want to thank the contributors to this book for their enthusiasm and their willingness to share their accumulated knowledge.

I want to thank Island Press for recognizing the need for a book that can help both educate students, policy makers, and professionals in the practice of developing more sustainable cities. Both Island Press Senior Editor Heather Boyer and Assistant Editor Courtney Lix demonstrated the level of professionalism and commitment that has established Island Press as a global leader in stimulating and communicating ideas for creating a more sustainable future in the United States and globally. I want to express my most heartfelt appreciation to Heather and Courtney as well as everyone else at Island who has worked to bring this book to fruition.

Last, I want to thank Sy Adler, Professor of Urban Studies and Planning at Portland State University. It was during a discussion with Sy that I mentioned the need for a book that would empirically examine the issue of urban sustainability in a broader context across a range of American cities. Sy suggested that I expand my work into a book. The results can be found in the pages that follow.