

**REMARKABLE CITIES AND
THE FIGHT AGAINST
CLIMATE CHANGE:
43 RECOMMENDATIONS
TO REDUCE GREENHOUSE
GASES AND THE
COMMUNITIES THAT
ADOPTED THEM**

*SUSTAINABLE DEVELOPMENT CODE:
CLIMATE CHANGE CHAPTER*

Jonathan Rosenbloom

ENVIRONMENTAL LAW INSTITUTE
Washington, D.C.

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1730 M Street NW, Washington, DC 20036

Cover design by Evan Odoms.

Published February 2020.

Printed in the United States of America
ISBN 978-1-58576-221-7

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About the Author

Jonathan Rosenbloom is the Dwight D. Opperman Distinguished Professor of Law at Drake Law School. His scholarship explores issues relevant to local governments and sustainability, with a particular focus on land use. He is a former U.S. Circuit Court clerk, attorney for the federal government and a large law firm, and commissioner on the Des Moines Plan and Zoning Commission. He is also the founding director of the Sustainable Development Code, a model land use code providing local governments with the best sustainability practices in land use. Jonathan has degrees from the Rhode Island School of Design, New York Law School, and Harvard Law School. He is happiest spending time with his wife and daughters and working with wood.



Acknowledgments

Getting the Sustainable Development Code (SDC) to this point has been an ongoing and gargantuan task for almost 10 years. The SDC is truly an interdisciplinary collaboration among academics and practicing attorneys, planners, architects, developers, local staff, and others devoted to improving the lives of all people. Drake University Law School has spearheaded this project in collaboration with almost a dozen law and planning schools and dozens of individuals. Without the drive and vision of many practitioners, academics, and students, this project would be impossible.

Each of the 43 recommendations recognizes the authors and editors who contributed to drafting that recommendation. Others who have been instrumental to the SDC and the Climate Change chapter include Drake University Law School Dean Jerry Anderson, Don Elliot, Jim Hansen, John Lorentzen, John Mitola, and Justin Platts. A special thanks to Chris Duerksen, who not only co-edited most of the briefs included in this book and chairs the SDC Advisory Committee, but also has been the moral compass of the SDC for over a decade. We also thank all the law and planning students that are named in this book, especially SDC 2018 Summer Fellows Tyler Adams, Brandon Hansom, Alec LeSher, and Kyler Massner. We thank the entire team at the Environmental Law Institute for making this possible.

Finally, without the financial support of Musco Lighting, Juhl Energy, and John Lorentzen, the SDC would simply not have been possible. In addition, RDG Planning and Design, P7 Design, and Clarion Associates LLP have financially supported the SDC to help make the Climate Change chapter a reality. Thank you.

—Jonathan Rosenbloom

Preface

In *Invisible Cities*, Italo Calvino tells the fictitious story of secret meetings between Marco Polo and Kublai Khan. Each night Polo describes the wonders found in cities in Khan's empire. Khan ultimately figures out that his empire is in far worse condition than Polo describes. Khan tells Polo that he knows his empire is crumbling and he and his people are in a downward spiral. Polo replies:

Yes, the empire is sick, and what is worse, it is trying to become accustomed to its sores. This is the aim of my explorations: examining the traces of happiness still to be glimpsed, I gauge its short supply. If you want to know how much darkness there is around you, you must sharpen your eyes, peering at the faint lights in the distance.¹

As the federal government pulls back from climate regulation and turns a blind eye to climate science and local plight, it is cities that provide a faint light and hope for the future. And yet, local governments face an uncertain and daunting future. Societal, environmental, political, and economic changes test the survival of many communities. These changes include higher obesity rates,² disparities in economic equality not seen since before the Great Depression,³ state and federal hostility to local action,⁴ increase in the sharing economy and autonomous vehicles,⁵ and, potentially most distressing, a warmer climate⁶ and irreplaceable loss of biodiversity.⁷

Paralleling these changes is an explosion of development that will rival post-World War II land use expansion. The U.S. population is projected to increase by almost 70 million people by 2040.⁸ This increase and the phasing out of older buildings will require massive amounts of development, including approximately 90 billion additional square feet of commercial, retail, and industrial space and 80 million new residential units.⁹

If development patterns in the next 20-30 years replicate development patterns for the last 20-30 years, 40 million undeveloped acres will be destroyed (approximately the size of Oklahoma).¹⁰ Communities across the country will lose critical ecosystems and habitats (forests, prairies, wetlands, etc.). Such a loss will add stress to already overstressed natural and man-made systems and will increase natural hazard risks to people, ecosystems, and communities.

Most communities' development codes were not designed for this oncoming wave of development and uncertainty. They were designed to address a static environment, society, and economy. In most part, they were not written to confront the kind of dynamic and unpredictable systems local communities face today.

Our current understanding of climatic and other changes suggests that continuing to allow development pursuant to existing codes may result in catastrophic losses across the social, economic and environmental spectrums. Many local governments, however, do not have the time or resources to research amendments to their development codes to address the myriad of changes and uncertainty they face.

The Sustainable Development Code was created to fill this gap and introduce additional community control.

The Sustainable Development Code (SDC)

What is and should be the role of development codes in planning for uncertainty? The SDC addresses this question by rethinking development so that “development” and “growth” help build sustainable communities and resilience. The SDC ensures that communities grow in a way that harmonizes development with ecosystems, nature, economic equality, and other core values that make communities . . . communities.

Officially launched on May 15, 2019, the SDC, www.sustainablecitycode.org, “aims to help all local governments, regardless of size and budget, build more resilient, environmentally conscious, economically secure and socially equitable communities.”¹¹ The SDC provides local governments with best practices for particular issues with a focus on development codes and the development review process.

The SDC researches and identifies best-practices as adopted in local ordinances across the U.S. and across a broad spectrum of sustainability issues. Through a rigorous editorial and interdisciplinary process, the SDC summarizes this research and provides concrete ways for communities to amend development codes and adapt to changes as they occur.¹²

As of December 1, 2019, the SDC consisted of over 350 recommendations across 32 chapters. The 32 chapters, set forth in the textbox below, correspond to 32 areas where development implicates issues relevant to sustainability. The chapters serve as a menu for communities to identify the issues that they are confronting.

SDC Subchapters

Environmental Health & Natural Resources

- 1.1 Climate Change
- 1.2 Low-Impact Development & Stormwater Management
- 1.3 Sensitive Lands & Wildlife Habitat
- 1.4 Water Supply Quality & Quantity
- 1.5 Water Conservation
- 1.6 Solid Waste Management & Recycling
- 1.7 Urban Forestry & Vegetation

Natural Hazards

- 2.1 Floodplain & River Corridor Land Use
- 2.2 Wildfire Hazards and the Wildland-Urban Interface
- 2.3 Coastal Hazards
- 2.4 Steep Slope Hazards
- 2.5 Hazard Mitigation & Resiliency

Land Use & Community Character

- 3.1 Development Patterns & Infill
- 3.2 Development Densities
- 3.3 Mixed-Use
- 3.4 Transit-Oriented Development

- 3.5 Historic Preservation & Adaptive Reuse

- 3.6 Parking

Mobility & Transportation

- 4.1 Complete Streets/Safe Streets
- 4.2 Bicycle Mobility
- 4.3 Pedestrian Mobility
- 4.4 Public Transit
- 4.5 Autonomous Vehicles & New Technology

Community

- 5.1 Housing Affordability
- 5.2 Housing Diversity

Healthy Neighborhoods, Housing, & Food Security

- 6.1 Community Health & Safety
- 6.2 Food Security & Sovereignty

Energy

- 7.1 Wind Energy
- 7.2 Solar Energy
- 7.3 Other Energy Generation Systems
- 7.4 District Energy Systems
- 7.5 Energy Conservation & Efficiency

Each chapter consists of 30-40 recommendations. Each recommendation is sorted into one of three categories: remove code barriers, create incentives, or fill regulatory gaps. Each recommendation has a corresponding “brief,” designed by and for public officials and staff across the country. The briefs consist of:

- *Introduction*—explaining the recommended ordinance to amend the code;
- *Effects*—detailing how adopting the recommended ordinance may affect the community, including costs and benefits; and

- *Examples*—describing in plain language 2-4 examples of enacted ordinances adopting the recommendation; this section also includes links and citations for 4-6 additional ordinances adopted by local governments.

When fully drafted, the SDC will consist of over 1,500 recommendations. After the SDC is fully drafted, one-third of the chapters will be updated every year.

Endnotes

1. ITALO CALVINO, *INVISIBLE CITIES* 51 (1972).
2. See Hyuna Sung, et al., *Emerging cancer trends among young adults in the USA: analysis of a population-based cancer registry*, *THE LANCET*, Feb. 3, 2019 (study indicating increases in obesity are leading to increases in obesity-related cancer).
3. See Gabriel Zucman, *Global Wealth Inequality*, NAT. BUREAU OF ECONOMIC RESEARCH, Jan. 2019, <https://perma.cc/7F78-Q6FP> (noting that income inequality increased since the 1980s and is now greater than any year after the Great Depression).
4. See Erin Ryan, *Memo to Environmentalists: Brace for Preemption, Propertization, and Problems of Political Scale in ENVIRONMENTAL LAW. DISRUPTED.*, (ELI Press forthcoming 2020) (“With federal environmental law under sustained attack since 2016, it becomes incumbent on environmental advocates to think more seriously about how to continue pursuing solutions to national-level environmental problems by means other than federal authority.”); Victor B. Flatt & Rob Verchick, *Burying Our Head in Sand on Climate Change No Longer an Option*, HOUS. CHRON. (Sept. 28, 2017), <http://www.houstonchronicle.com/opinion/outlook/article/Burying-our-head-in-sand-on-climate-change-no-12238961.php>.
5. Susan Crawford, *Autonomous Vehicles Might Drive Cities to Financial Ruin*, WIRED.COM, June 20, 2018.
6. Intergovernmental Panel on Climate Change, *Global Warming of 1.5 C* (2018), <https://perma.cc/2UBR-SAPZ>; U.S. Global Change Research Program, *Fourth National Climate Assessment* (2018), <https://perma.cc/7GFG-PE9V>.
7. IPBES Global Assessment, *Report of the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services* (May 2019), <https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services>.
8. Sandra L. Colby & Jennifer M. Ortman, *Projections of the Size and Composition of the U.S. Population: 2014 to 2060* (U.S. Census Bureau 2015) (projecting 2040 U.S. population to be almost 400 million). As of July 2019, U.S. population was approximately 330 million. See *U.S. and World Population Clock*, <https://www.census.gov/popclock/>.
9. ARTHUR NELSON, *PLANNER’S ESTIMATING GUIDE: PROJECTING LAND-USE AND FACILITY NEEDS* (Routledge 2004).
10. *Id.*
11. *About*, Sustainable Development Code, <http://sustainablecitycode.org/about/> (last visited May 25, 2019).
12. *Id.*

Introduction

This book is the first to index and reprint a subchapter of the SDC. Due to the immediacy of the climate change challenge, we chose to print the Climate Change Subchapter in full first to make it as accessible as possible. Our hope is that it will be useful to local communities regardless of their population and location and that it will help expedite the mitigation of greenhouse gas emissions (GHGs). As the SDC rolls out future chapters we hope to make them available in print format.

This book provides local governments with a diversity of approaches to reduce GHGs and/or increase natural features that absorb GHGs, such as trees and wetlands. This book focuses on actions that are traditionally within local governments' land use and development authority. The recommendations focus exclusively on enacted ordinances (i.e. not policies or informal statements) that are part of the development code. While some SDC recommendations may overlap with building codes and comprehensive plans, we are as cognizant as possible to keep the recommendations within the development code and process.

Although SDC recommendations cite and describe enacted ordinances, each community should ensure that newly enacted ordinances are within their specific local authority, have not been preempted, and are consistent with state comprehensive planning laws. Also, the effects described in SDC recommendations are based on existing examples. Those effects may or may not be replicated elsewhere. If you adopt an ordinance or adopt a GHG reduction ordinance not part of the SDC, we would very much like to hear about your experience.

Finally, we believe that the climate change recommendations in this book are critical to helping localities and states meet their GHG reduction targets. If your community would like to discuss any of the recommendations, please contact us at: <https://sustainablecitycode.org/share/>.