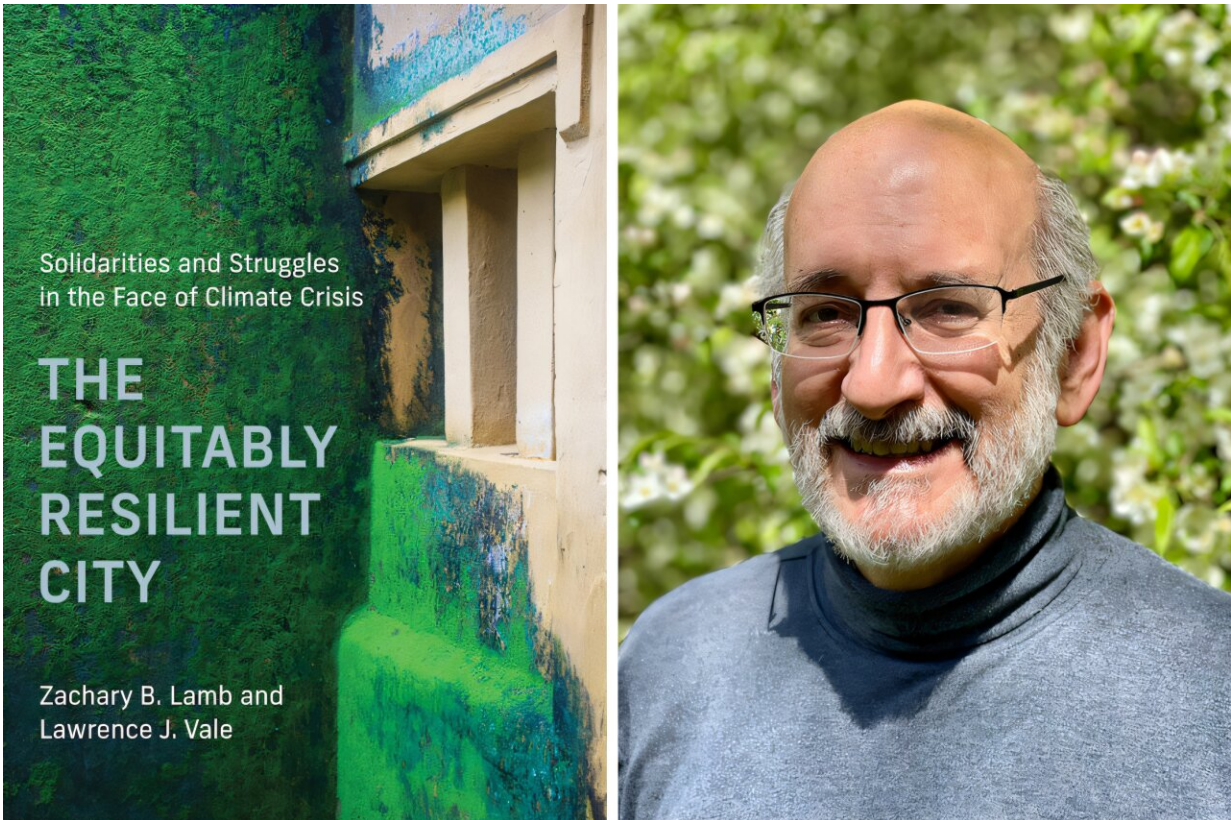


How cities are weathering the climate crisis

January 24 2025, by Peter Dizikes



Credit: Lawrence Vale/Massachusetts Institute of Technology

Several years ago, the residents of a manufactured-home neighborhood in southeast suburban Houston, not far from the Buffalo Bayou, took a major step in dealing with climate problems: They bought the land under their homes. Then they installed better drainage and developed strategies to share expertise and tools for home repairs. The result? The

neighborhood made it through Hurricane Harvey in 2017 and a winter freeze in 2021 without major damage.

The neighborhood, known as Pasadena Trails, is part of a U.S. movement toward the Resident Owned Community (ROC) model for manufactured home parks. Many people in manufactured homes—mobile homes—do not own the land under them. But if the residents of a manufactured-home park can form an ROC, they can take action to adapt to [climate risks](#)—and ease the threat of eviction. With an ROC, manufactured-home residents can be there to stay.

That speaks to a larger issue: In cities, lower-income residents are often especially vulnerable to natural hazards, such as flooding, extreme heat, and wildfire. But efforts aimed at helping cities as a whole withstand these disasters can lead to interventions that displace already-disadvantaged residents—by turning a low-lying neighborhood into a storm buffer, for instance.

"The global climate crisis has very differential effects on cities, and neighborhoods within cities," says Lawrence Vale, a professor of urban studies at MIT and co-author of a new [book](#) on the subject, "The Equitably Resilient City," published by MIT Press and co-authored with Zachary B. Lamb Ph.D. '18, an assistant professor at the University of California at Berkeley.

In the book, the scholars delve into 12 case studies from around the globe which, they believe, have it both ways: Low- and middle-income communities have driven climate progress through tangible built projects, while also keeping people from being displaced, and indeed helping them participate in local governance and neighborhood decision-making.

"We can either dive into despair about climate issues, or think they're

solvable and ask what it takes to succeed in a more equitable way," says Vale, who is the Ford Professor of Urban Design and Planning at MIT.

"This book is asking how people look at problems more holistically—to show how environmental impacts are integrated with their livelihoods, with feeling they can have security from displacement, and feeling they're not going to be displaced, with being empowered to share in the governance where they live."

As Lamb notes, "Pursuing equitable urban climate adaptation requires both changes in the physical built environment of cities and innovations in institutions and governance practices to address deep-seated causes of inequality."

Twelve projects, four elements

Research for "The Equitably Resilient City" began with exploration of about 200 potential cases, and ultimately focused on 12 projects from around the globe, including the U.S., Brazil, Thailand, and France. Vale and Lamb, coordinating with locally-based research teams, visited these diverse sites and conducted interviews in nine languages.

All 12 projects work on multiple levels at once: They are steps toward environmental progress that also help [local communities](#) in civic and economic terms. The book uses the acronym LEGS ("livelihood, environment, governance, and security") to encapsulate this need to make equitable progress on four different fronts.

"Doing one of those things well is worth recognition, and doing all of them well is exciting," Vale says. "It's important to understand not just what these communities did, but how they did it and whose views were involved. These 12 cases are not a random sample. The book looks for people who are partially succeeding at difficult things in difficult

circumstances."

One case study is set in São Paulo, Brazil, where low-income residents of a hilly favela benefitted from new housing in the area on undeveloped land that is less prone to slides. In San Juan, Puerto Rico, residents of low-lying neighborhoods abutting a water channel formed a durable set of community groups to create a fairer solution to flooding: Although the channel needed to be re-widened, the local coalition insisted on limiting displacement, supporting local livelihoods and improving environmental conditions and [public space](#).

"There is a backlash to older practices," Vale says, referring to the large-scale urban planning and infrastructure projects of the mid-20th century, which often ignored community input. "People saw what happened during the urban renewal era and said, 'You're not going to do that to us again.'"

Indeed, one through-line in "The Equitably Resilient City" is that cities, like all places, can be contested political terrain. Often, solid solutions emerge when local groups organize, advocate for new solutions, and eventually gain enough traction to enact them.

"Every one of our examples and cases has probably 15 or 20 years of activity behind it, as well as engagements with a much deeper history," Vale says. "They're all rooted in a very often troubled [political] context. And yet these are places that have made progress possible."

Think locally, adapt anywhere

Another motif of "The Equitably Resilient City" is that local progress matters greatly, for a few reasons—including the value of having communities develop projects that meet their own needs, based on their input. Vale and Lamb are interested in projects even if they are very

small-scale, and devote one chapter of the book to the Paris OASIS program, which has developed a series of cleverly designed, heavily tree-dotted school playgrounds across Paris.

These projects provide environmental education opportunities and help mitigate flooding and urban heat while adding CO₂-harnessing greenery to the cityscape.

An individual park, by itself, can only do so much, but the concept behind it can be adopted by anyone.

"This book is mostly centered on local projects rather than national schemes," Vale says. "The hope is they serve as an inspiration for people to adapt to their own situations."

After all, the urban geography and governance of places such as Paris or São Paulo will differ widely. But efforts to make improvements to public open space or to well-located inexpensive housing stock applies in cities across the world.

Similarly, the authors devote a chapter to work in the Cully neighborhood in Portland, Oregon, where community leaders have instituted a raft of urban environmental improvements while creating and preserving more affordable housing. The idea in the Cully area, as in all these cases, is to make places more resistant to climate change while enhancing them as good places to live for those already there.

"Climate adaptation is going to mobilize enormous public and private resources to reshape cities across the globe," Lamb notes. "These cases suggest pathways where those resources can make cities both more resilient in the face of climate change and more equitable. In fact, these projects show how making cities more equitable can be part of making them more resilient."

Other scholars have praised the book. Eric Klinenberg, director of New York University's Institute for Public Knowledge has called it "at once scholarly, constructive, and uplifting, a reminder that better, more just cities remain within our reach."

Vale also teaches some of the book's concepts in his classes, finding that MIT students, wherever they are from, enjoy the idea of thinking creatively about climate resilience.

"At MIT, students want to find ways of applying technical skills to urgent global challenges," Vale says. "I do think there are many opportunities, especially at a time of climate crisis. We try to highlight some of the solutions that are out there. Give us an opportunity, and we'll show you what a place can be."

More information: The Equitably Resilient City.
[mitpress.mit.edu/9780262549868 ... ably-resilient-city/](https://mitpress.mit.edu/9780262549868...ably-resilient-city/)

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