

Introduction

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“The greatest comeback since Lazarus” is how Peter Ricchiuti, professor at Tulane University, often described New Orleans’ recovery from Hurricane Katrina’s near-total devastation. In the years immediately following Katrina, Ricchiuti frequently welcomed students, graduates, and business professionals to New Orleans. Seeing visitors and newcomers amazed and inspired him, his colleagues, and his neighbors. Outside the Central Business District hotels where he often spoke at conferences, there were scores of shops, restaurants, and offices reopening for business, undeterred by vacant office towers and the lingering odor of basements still damp and moldy from floodwaters. A little farther away, across dozens of city neighborhoods, thousands of residents and volunteers were slowly rebuilding homes, businesses, and churches submerged for weeks following Katrina’s catastrophic levee breaches. For those who had observed firsthand New Orleans’ near-complete devastation, its resurgence was solemn and awe-inspiring.

The field of disaster law and policy has origins older and broader than the August 2005 storm that ravaged the US Gulf Coast.¹ Its roots are sometimes traced back to California’s 1989 Loma Prieta and 1994 Northridge earthquakes, the 1995 Kobe, Japan earthquake, the September 11 attacks, and the 2004 Banda Aceh, Indonesian tsunami. Growing alarm about climate change has also influenced the field’s growth. The Intergovernmental Panel on Climate Change (IPCC) delivered its second report in 1995 and a third report in 2001, both issuing stern warnings about the advancing onset of global warming.² The Kyoto Protocol was drafted in 1997, activating the United Nations Framework Convention on Climate Change (UNFCCC). That Protocol went into effect in 2005, without the United States as a signatory.

In other words, climate change and catastrophes preceding Katrina led policymakers and scholars to evaluate more closely the unusual, but critical, law and policy considerations surrounding disasters and the onset of climate change.³ Few, however, would dispute that Hurricane Katrina was a turning point. It was a tragic, pivotal event that led policymakers,

¹ See DANIEL A. FARBER, JAMES MING CHEN, ROBERT R. M. VERCHICK, & LISA GROW SUN, *DISASTER LAW AND POLICY* (3d ed. 2015). See also Finn, *infra*, Chapter 1.

² The IPCC released its 6th and most recent Assessment Report on climate change as this volume was being edited. Chapter 11 of the draft report describes climate change as a likely driving force behind recent weather-related hazard events. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC), *CLIMATE CHANGE 2021: THE PHYSICAL SCIENCE BASIS* (2021), <https://www.ipcc.ch/report/sixth-assessment-report-working-group-i/#:~:text=THE%20REPORT%20Authors,Report,54th%20Session%20of%20the%20IPCC>.

³ LAURIE A. JOHNSON & ROBERT B. OLSHANSKY, *AFTER GREAT DISASTERS: AN IN-DEPTH ANALYSIS OF HOW SIX COUNTRIES MANAGED COMMUNITY RECOVERY* (2017); Witold Rybczynski, *Rebuilding NOLA*, 10 *WHARTON REAL ESTATE REV.* 92 (Spring 2006).

scholars, and a wide range of professionals to engage in a more comprehensive assessment of whether and how laws and policies promote community resilience to disaster events.⁴

In unprecedented fashion, Katrina demonstrated fundamental ways in which laws and government institutions proved inadequate both before and after the storm, and it revealed precisely how those shortfalls have enormous human consequences. Disaster planning and response largely overlooked the needs of residents who lacked the resources to evacuate or to return and rebuild – in New Orleans and across southern Louisiana and Mississippi. Government-led long-term recovery programs were well-intentioned but anemic and disappointingly calibrated, failing to help those in greatest need.

Professor Ricchiuti's droll characterization of the city's post-storm resurrection captures the irrepressible spirit of a community determined to rebuild following disaster.⁵ It also aptly describes a city's extraordinary recovery from a near-death experience. Ordered evacuated and then largely abandoned for weeks, New Orleans had been laid waste by failing flood walls that unleashed tidal waves throughout the city. Two-thirds of the city's residents – 300,000 people – permanently or temporarily lost their homes.⁶

To bring New Orleans back required rebuilding and revitalizing a city at a scale that was, outside of war, almost unparalleled in modern times.⁷ Many of New Orleans' fundamental functions had to be reinvented or revived, from administrative hearing procedures, to government ethics guidelines and healthcare services, to housing stock, parks, retail stores, roads, stormwater systems, and the city's comprehensive plan and zoning code.⁸ Each of these enormous recovery efforts demanded concurrent reexamination of complex legal and institutional considerations that controlled response and recovery initiatives. The laws and government agencies impeding and complicating recovery were many. They included: a city charter restricting the mayor's ability to execute long-term contracts; a state insurance regime uninterested in exploring ways to reward investment in newly constructed and rehabbed storm-resistant structures; a state constitution that effectively barred public agencies from acquiring long-relic private properties and redeveloping them for affordable housing; and federal agencies who refused to disburse recovery funds to families who could not sufficiently demonstrate ownership of storm-damaged homes.

History and legend supply iconic reminders that disasters can dramatically alter the human landscape and the communities it supports. Atlantis, ancient Alexandria, and Pompei furnish three examples of cities wiped away by disaster.⁹ A catastrophe of Katrina's magnitude seemed a fantastic fictional narrative until August 29, 2005. But other natural disasters have followed – albeit on a much smaller scale – that have jeopardized entire small cities and towns, including the wildfires in Ft. McMurray, Alberta (2016), Paradise, California (2018), and Lytton, British

⁴ These included calls for change from lawyers, architects, engineers, healthcare professionals, planners, and others.

⁵ Generally speaking, disaster law and policy scholars have cautioned that the post-disaster drive to rebuild might best be tempered for the sake of making prudent decisions about expenditure of recovery funds as well as the future safety and security of residents who are rebuilding. See Alexander B. Lehman, *Stronger Than the Storm: Disaster Law in a Defiant Age*, 78 LA. L. REV. 437 (2018); Rob Olshansky, *Recovery After Disasters: How Adaptation to Climate Change Will Occur*, in CLIMATE CHANGE AND ITS IMPACTS: RISKS AND INEQUALITIES (Colleen Murphy, Paulo Gardoni, & Robert McKim eds., 2018).

⁶ Rybczynski, *supra* note 3, at 93–94.

⁷ Rybczynski observes that many other large cities have been devastated by natural disasters over the past several hundred years, but that New Orleans stands out.

⁸ See David A. Marcello, *Ethics Reform in New Orleans Progress – And Problems Ten Years Post-Katrina*, 62 LOYOLA L. REV. 435 (2016); ROBERT B. OLSHANSKY AND LAURIE A. JOHNSON, CLEAR AS MUD: PLANNING FOR THE REBUILDING OF NEW ORLEANS 238–44 (2010).

⁹ See Rowberry, *infra* Chapter 29.

Columbia (2021). The looming specter of Katrina and the major disaster events that have followed raise the question of whether communities and nations are prepared to deliver the critical, time-sensitive, and highly specialized interventions necessary to enable all sectors of a community to recover and thrive. The growth of disaster law and policy as a field is, of course, not so much driven by the prospect of a single calamity befalling a community as it is tied to the near certainty that we have entered an era when the frequency, severity, and potential redundancy of major disaster events demands a robust, creative, and inclusive response from lawmakers and policymakers.¹⁰

Katrina emphatically demonstrated that laws and policies matter. Constitutions, statutes, ordinances, procedures, and judicial decisions set basic priorities. They articulate overarching values and establish a critical infrastructure for engaging citizens, businesses, and philanthropic interests in the work of nurturing stronger and more equitable communities.¹¹ The *Handbook* is intended to help practitioners, scholars, and leaders assess the progress that disaster law and policy has made – and must continue to make – to ensure that communities have the laws and institutions in place to enable meaningful disaster preparation, mitigation, response, and recovery. We celebrate New Orleans’s continuing recovery from a disaster, as well as recoveries in cities across the globe from New York, to Istanbul, to Kobe. At the same time, we recognize that there is much to learn and, unfortunately, more disasters to come, including those that may seem unimaginable to us. Moreover, as Professor Ricchiuti suggests, our work in service of disaster response and recovery may even require us to become adept at the extraordinary feat of bringing communities back from the brink.

This introduction provides an overview of the disaster law and policy topics explored in the chapters that follow. Before sharing that overview, there are a few threshold questions to consider. What does the word “disaster” mean? What concerns are reasonably encompassed by the field of disaster law and policy? And where might disaster law and policy be headed in its evolution as a field of practice and study? The answer to each of these questions is malleable, and the developing and dynamic nature of disaster law and policy is reflected in the contributions the chapter authors have made to this volume. The *Handbook*’s Foreword and thirty-three chapters highlight a range of ongoing efforts to advance international, national, and local responses to disasters as well as plans to prepare for them. We offer here brief initial thoughts on three foundational considerations.

I DEFINING DISASTER

When a storm, earthquake, accident, or other calamity puts lives, livelihoods, and community in jeopardy, it seems easy to overlook questions about a word’s meaning. Those engaged actively in disaster response, recovery, and preparation don’t ordinarily have the time to think about such

¹⁰ See Farber & Grow, *supra* Foreword.

¹¹ Ordinances, statutes, and state constitutions help define a city’s capability to respond to disasters. See, e.g., J. R. Nolon, *Disaster Mitigation Through Land Use Strategies*, 23 *PAGE ENVTL. L. REV.* 959, 963–64 (2006); P. E. Salkin, *Sustainability at the Edge: The Opportunity and Responsibility of Local Governments to Most Effectively Plan for Natural Disaster Mitigation*, 38 *ENVTL. L. REP. NEWS & ANALYSIS* 10158, 10158 (2008). We also recognize that the law may be inadequate to address fundamentally destabilizing challenges, such as those posed by climate change, and that sometimes law even acts at cross-purposes to fundamental goals, such as environmental protection. See R. Henry Weaver & Douglas A. Kysar, *Courting Disaster: Climate Change and the Adjudication of Catastrophe*, 93 *NOTRE DAME L. REV.* 295 (2017) (“We are concerned . . . with the more profound ways in which climate change destabilizes the concept of law”); Jan G. Laitos & Lauren Joseph Wolongevicz, *Why Environmental Laws Fail*, 39 *WM. & MARY ENVTL. L. & POL’Y REV.* 1 (2014) (“natural resources and environmental laws have been unsuccessful and in some cases even destructive”).

elemental questions. They are busy tackling challenges encountered as a city or town works to bounce back from a catastrophe or prepares for a future encounter with a potential hazard event. However, the definition of disaster is not simply a matter of vocabulary. It matters to the individuals caught in the disaster's crosshairs as well as the government, for-profit, and nonprofit entities responding to a disaster event.

To an extent, the determination that a hazard event qualifies as a disaster is subjective.¹² It depends on perspective. In the United States, the decision regarding whether a disaster meets the federal definition of a "major disaster" can be the difference between receiving a modest level of state aid or millions of dollars in federal assistance. Decisions about the quantum of damage suffered by affected communities can sometimes boil down to a matter of interpretation. It is not unusual for local governments in the United States to learn that the federal government has refused their state governor's request for a major disaster declaration. These communities may then choose to make the case that storm damage rises to the level of a major disaster. In January 2017, Dougherty County, Georgia suffered widespread and severe wind damage caused by strong in-line thunderstorms.¹³ Although Georgia's governor declared a disaster, a federal declaration did not follow. The County quickly hired a former state emergency management professional who advised the local government how to gather and present the block-by-block structural damage assessments that would be needed to make the County's case to the Federal Emergency Management Agency (FEMA). Only with detailed data in hand and persuasive appeals through social media and national television news outlets did the County secure a federal declaration of major disaster. "All disasters are local," and sometimes those closest to a hazard event must demonstrate to those not on the ground that the event meets the technical definition of a disaster.

More than money and expert assistance are at stake when judging what constitutes a disaster. Recognizing an event as a disaster is also about justly and fairly validating the experience of communities affected by a disaster. People who endure traumatic events find their lives permanently transformed. Acknowledging an event as a disaster not only helps confirm that those affected have suffered loss, but it also signals to others that survivors warrant and may require special assistance. Consider, for example, community members who suffer long-term displacement following a devastating drought. Whether members of a community have been displaced within their home country or beyond its borders, those driven out by the drought and the communities receiving them face enormous adversity and significant peril. Historically, government and nongovernmental organizations have not considered such displacement a disaster. As Alka Sapat, Arjola Balilaj, and Ann-Margaret Esnard explain, those who are displaced internally, within their own county, cannot even be recognized as refugees of disasters.¹⁴ Mass displacement, of course, for whatever reason, creates conditions which are almost by definition beyond the ability of a local government or even some national government to manage.

Scholars and commentators have scrutinized the wide range of definitions that governmental, intergovernmental, and nongovernmental organizations have given to the term "disaster." We do not attempt here to cover them in detail, but we recognize that they have consequences, potentially shaping our response to, and preparation for, disasters. Just as Dougherty County,

¹² Ryan S. Keller, *Keeping Disaster Human: Empathy, Systematization and the Law*, 17 MINN. J. L. SCI & TECH. 1, 10–12 (2016).

¹³ Interview with Christopher Cohilas, Chair, Dougherty County Commission, June 13, 2019 (notes on file with editors).

¹⁴ See Sapat, Balilaj, & Esnard, *infra* Chapter 31.

Georgia officials found that the Stafford Act's definition of "major disaster" permitted a somewhat subjective interpretation that initially excluded their loss, other definitions arguably support broader recognition. In the international context, Matiangai Sirleaf observes that the International Law Commission's (ILC) definition of disaster likely covers even events surrounding pandemic and epidemic diseases.¹⁵ Similarly, definitions crafted by the United Nations Office for Disaster Risk Reduction (UNDRR) and the International Federation of Red Cross and Red Crescent Societies (IFRC) also support more expansive definitions of disaster.¹⁶ Not only as scholars and practitioners, but also as businesses, nongovernmental, governmental, and inter-governmental organizations who may have a legal responsibility to prepare for, or respond to, disasters, it is important for us to consider carefully the contours of how disaster is defined.¹⁷

II THE EMERGENCE OF DISASTER LAW AND POLICY AS AN AREA OF PRACTICE AND STUDY

Hallmarks of an emerging field in any discipline frequently include textbooks, courses of study, and growth of professional and academic communities of interest – to name just a few.¹⁸ There is no mistaking that disaster law and policy is a new and growing field. Over the last fifteen years, the field has matured significantly to allow undergraduate, graduate, and professional students to take classes that focus on disasters, choose from dozens of books, and join organizations devoted to advancing all range of concerns pertaining to disasters.¹⁹

At a time when it is impossible to read a newsfeed without encountering stories of droughts, fires, floods, or heatwaves, the growth of disaster law and policy seems inevitable and unremarkable. But the field's growth and development was not always foreseeable. In the United States, major disasters had been historically handled in a reactive manner and as more or less distinct events.²⁰ Response and recovery roles evolved slowly, and disaster-related concerns were treated as a kind of "orphan" law and policy subject, lacking not only a steady governmental home, but also a well-coordinated system of programs and policies.²¹ Ad hoc and disjointed disaster response and recovery efforts took their toll and so too did a steady number of major disasters. Beginning with Hurricane Hugo, the Loma Prieta (1989) and Northridge (1994) earthquakes, and extending to the September 11 attacks, the 2010 BP Gulf of Mexico Oil Spill, and Super Storm Sandy, policymakers, scholars, business leaders, and philanthropists took increasing notice of disasters. They focused on the social, economic, and political costs of disasters and, more importantly, the far-reaching and persistent burdens that disaster events placed on the large number of citizens vulnerable to the disaster events. Although laws and policies had long helped

¹⁵ See Sirleaf, *infra* Chapter 12.

¹⁶ See Sampaio & Sampaio, *infra* Chapter 5 (discussing the UN Office for Disaster Risk Reduction definition); James M. Chen, *Modern Disaster Theory: Evaluating Disaster Law as a Portfolio of Legal Rules*, 25 EMORY INT'L L. REV. 1121, 1121–22 (2011) (discussing the International Federation of Red Cross and Red Crescent Societies (IFRC) definition of disaster).

¹⁷ See Anastasia Telesetsky, *Beyond Voluntary Corporate Social Responsibility*, 48 VAND. J. TRANSNAT'L L. 1003, 1006 (2015).

¹⁸ See generally, THOMAS S. KUHN, *THE STRUCTURE OF SCIENTIFIC REVOLUTIONS* (1962). There were few teaching resources available as recently as the 1990s. See Claire Rubin, *Reflections on 40 Years in the Hazards and Disasters Community*, 12 J. HOMELAND SEC. & EMERGENCY MGMT. 763, 765 (2015), <https://www.degruyter.com/document/doi/10.1515/jhsem-2015-0050/html>.

¹⁹ FEMA lists more than 260 colleges and universities that offer a course of studies in disaster and emergency management. FED. EMERGENCY MGMT. AGENCY (FEMA), *The FEMA Higher Education College List*, <https://training.fema.gov/hiedu/collegelist/>.

²⁰ See Rubin, *supra* note 18, at 765 (2015).

²¹ See Finn, *infra* Chapter 1.

promote the recovery of many communities destroyed by disasters, it became clear that there were too many instances in which laws and policies were failing to protect the needs and rights of the poor, the chronically ill, young children, single parents, and others who faced special adversities.

Disasters usually reshape a community's physical landscape. Earthquakes can cause tsunamis, landslides, and soil liquefaction that wipe out wide swaths of neighborhoods. Coastal and riverine flooding can tear block after block of buildings from their foundations. Disaster law and policy examines all aspects of these far-reaching effects: physical impacts to homes, businesses, the electrical grid, levees, dams, or other infrastructure; compensation that insurance offers to cover these losses; or impressive deployment of state and federal resources to assist with a community's disaster preparation or management of the immediate response.

Although the law and policy changes prompted by disasters are not photogenic and not nearly as sudden as the physical upheavals, disasters frequently set law and policy changes in motion. The disaster event can alter the way in which we see pre-existing laws, exposing policies and procedures that function inefficiently or, even worse, frustrate the post-disaster recovery process.²² Laws that prove problematic to key recovery objectives are often targeted for repeal or amendment. In Louisiana, following Hurricane Katrina, a key facet of New Orleans' federally funded neighborhood revitalization strategy was to tap a state-created redevelopment authority to use its expropriation power to acquire abandoned residential properties and to transfer those properties to private developers who would build housing for low- and moderate-income families. Standing in the way of this important plan was a provision in the Louisiana constitution prohibiting state and local governments from using their eminent domain power to transfer expropriated land to private parties. In 2010, Louisiana voters approved a constitutional amendment finally authorizing this post-disaster neighborhood redevelopment tool.

Disasters also expose critical gaps in a community's legal infrastructure. If these gaps are to be addressed, they must be bridged in the chaos of a community's recovery, which is never ideal and frequently rushed. One of the most common and problematic gaps is the failure of communities to plan for, or to provide for, temporary and long-term post-disaster housing.²³ These housing options are particularly critical for individuals and families who lose their housing during disaster events because their homes are substandard or poorly maintained. Unfortunately, some of these gaps go unfilled.

Among the important contributions made by pioneers in the field of disaster law and policy is the appreciation that major disasters have extensive and interconnected impacts at the local, subnational, and national levels.²⁴ The physical wreckage associated with these disasters completely upends life at the neighborhood level. To help citizens bounce back requires coordinated emergency response and debris removal services from all levels of government. It also necessitates financial assistance from the national government, contextually appropriate infrastructure repairs from the local and state or provincial government, and fine-tuned resilience investments from all levels of government – just to name several urgent post-disaster needs.

Helping communities recover from disaster is no easy task, and it has certainly proven that it is not an endeavor for those who are unprepared, untrained, and overwhelmed. The broadly encompassing nature of disasters requires integrated thinking about the specific needs and

²² See, e.g., Frank S. Alexander, *Louisiana Land Reform in the Storms' Aftermath*, 53 LOYOLA L. REV. 727 (2007).

²³ See Jeffrey Lubell, *Housing Displaced Families*, in REBUILDING URBAN PLACES AFTER DISASTER (Eugenie L. Birch & Susan M. Wachter eds., 2006).

²⁴ See Farber & Grow, *supra* Foreword, and Cutter, *infra* Chapter 3. See also ERNEST B. ABBOTT & OTTO J. HETZEL, *HOMELAND SECURITY AND EMERGENCY MANAGEMENT: A LEGAL GUIDE FOR STATE AND LOCAL GOVERNMENTS* (2d. ed. 2010).

goals of communities at each phase of the ongoing cycle of disaster: from response to recovery and mitigation, to preparation for future disaster events. Much progress has been made since the field emerged, but far greater advances are needed to meet the challenges associated with climate change and persistent vulnerability of communities whose welfare has long been pushed to the margins, including people of color, ethnic and religious minorities, the elderly, the disabled, and our children.²⁵

III THE FUTURE OF DISASTER LAW AND POLICY

We accepted Cambridge University Press's invitation to write and edit this *Handbook* early in 2019. So, as the volume's editors, we share now a collective chuckle as we try to predict where the practice and study of disaster law is headed. After all, front of mind for many in 2018 and 2019 were the then-recent major disaster events such as Hurricane Michael, the first Category 5 Hurricane to hit the continental US in more than twenty-five years, and the September 2018 Indonesian earthquake and tsunami that killed more than 4,300 people and destroyed thousands of homes. Michael was a ferocious storm that ripped through largely rural and poorer areas of Florida and Georgia where many structures were built long before contemporary building codes were adopted. At that time, we were asking whether Georgia and Florida would be able to build on lessons learned in a succession of storms beginning in 2005 with Hurricane Katrina and continuing to Hurricanes Harvey and Maria in 2017. Those storms displaced hundreds of thousands of low-income, elderly, disabled, minority, and undocumented families who struggled to find temporary and long-term housing options. The 2018 Indonesian earthquake and tsunamis raised similar questions. Could the government mobilize to create temporary housing for the thousands left homeless by the catastrophic tremors and waves?

Each year brings extraordinary and tragic new events to the study of disasters and disaster law, but in 2019 we did not foresee what the next two years would bring. Beginning in late 2019, Covid-19 spread rapidly from China. In March of 2020, the World Health Organization declared a global pandemic, and thus began a public health crisis that has visited almost every nation with devastating consequences. The pandemic has taken millions of lives, afflicted hundreds of thousands with debilitating long-term health conditions, left tens of thousands of young children without one or both parents, and completely upended the world's economy.²⁶

This volume's *Foreword*, authored by Dan Farber and Lisa Grow, insightfully plumbs critical challenges that will influence the future of disaster law and policy. We add here just one reflection regarding the field's trajectory. Mindful that the world remains gripped by a public health disaster as 2022 advances toward its midpoint, we continue to see the role that the pandemic is playing in framing the future study of disaster law and policy. Practitioners, policymakers, and scholars are just beginning to write about the pandemic's lessons.²⁷ Several

²⁵ MICHAEL B. GERRARD & KATRINA FISCHER KUH, *THE LAW OF ADAPTATION TO CLIMATE CHANGE: U.S. AND INTERNATIONAL ASPECTS* (2012); Jacqueline Patterson, *Equity in Disasters: Civil and Human Rights Challenges in the Context of Emergency Events*, in *BUILDING COMMUNITY RESILIENCE POST-DISASTER* (Dorcas R. Gilmore & Diane M. Standaert eds., 2013).

²⁶ *COVID-19 Coronavirus*, CTR. DISASTER PHILANTHROPY (Aug. 20, 2021), <https://disasterphilanthropy.org/disaster/2019-ncov-coronavirus/>. All fifty US states, five territories, and the District of Columbia were covered by federal disaster declarations. See FEMA, *COVID-19 Disaster Declarations*, <https://www.fema.gov/disaster/coronavirus/disaster-declarations>.

²⁷ Broad consensus exists that the pandemic represents a transformative crisis event, but we acknowledge there is an active debate as to whether it constitutes the type of "focusing event" that usually influences agenda setting and policymaking. See Rob A. DeLeo et al., *During Disaster: Refining the Concept of Focusing Events to Better Explain Long-Duration Crises*, 3 *INT'L REV. PUB. POL'Y* 5 (2021), <https://di.rg/1.4/irpp.1868>.

of the *Handbook's* contributors refocused their chapters to address its implications for disaster law and policy.²⁸ At this juncture, we believe that one of the most important lessons that the pandemic provides is that the foundation for meaningful disaster response and recovery is best laid with pre-disaster “blue skies” investments in more equitable development. Farber and Grow explain that the concept of disaster resilience demands some fine-tuning. We believe they would agree that the better definitions of resilience are suffused with principles of equity and justice. In an era when we are also suffering the profound effects of climate change, the Covid-19 pandemic serves as a dramatic and hard-earned reminder that investments in more equitable housing, community resources, and infrastructure are essential to achieve a greater degree of disaster resilience.

Covid-19 has yielded a searing and detailed picture of vulnerability at national and local levels. That is, the pandemic has exposed in vivid detail the critical shortcomings almost all communities harbor in their responsibility to help residents with special needs and challenges, whether they be people of color, the oldest or youngest among us, the chronically ill or disabled, or LGBTQ, or undocumented. Past major disasters have indeed provided snapshots of localized vulnerability. Citizens, businesses, nonprofits, philanthropic interests, and governmental entities have, with varying degrees of success, used those snapshots to try to inform their response. Global in reach and ongoing in nature, the pandemic has supplied a comprehensive, contextual, and penetrating image of community vulnerability that helps us understand and preview how major and broad-based stressor events, such as disasters associated with climate change, may cause distress to the communities where we live and work. Whether or not a region has been spared the effects of a major disaster in the recent past, Covid-19 puts local, subnational, and national governments on notice regarding some of the most serious vulnerabilities that communities can and will face.

Each disaster is laden with tragedies that we wish could have been avoided or prevented. The Covid-19 pandemic has been unspeakably horrible, ravaging almost every nation. It is, however, important not to lose sight of the fact that this public health crisis must be carefully sifted for the valuable, albeit deeply painful, lessons. Disasters vividly identify those who are struggling and those debilitated by the loss of their home, health, jobs, or social support networks. By functioning as a kind of x-ray that illuminates all that is broken and bruised, the disaster provides an opportunity to rectify unjust circumstances that helped give rise to a catastrophe. Further, the pandemic also highlights and reminds us that the greatest disasters jeopardize the well-being of those we typically consider insulated from significant environmental or economic shocks. By taking jobs away from a wide range of people working in service-related industries, we now see that the pandemic revealed a broader profile of vulnerability – a profile that suggests potentially widespread exposure to major hazards associated with climate change.

The pandemic can be used by policymakers and scholars as an inflection point for allowing communities to correct their course and to refashion and improve the historic systems that have made a community inequitable.²⁹ Over the last two years, governments, nonprofits, and philanthropic organizations have had to serve this broad population of need. With this information in hand, policymakers, scholars, and practitioners must focus on developing plans for equity-driven community investments. All public sector investments should be driven in part by the need to counter this broader understanding of vulnerability. Resilience must now be understood to be principally about achieving greater equity in our communities. Investments should be about

²⁸ See, e.g., Carlarne, *infra* Chapter 32; Gable, *infra* Chapter 33; and Lee, *infra* Chapter 28.

²⁹ Remarks by Bobby Milstein, Director of System Strategy, ReThink Health, to Georgia Health Policy Center (July 20, 2021) (notes on file with the authors).

raising up the least of those in our community and, by doing so, strengthening the ability of communities to navigate disaster and to continue to thrive during a community's long-term recovery.³⁰

The *Handbook on Disaster Law and Policy* is divided into seven parts. The volume begins by providing the reader historical context for our examination of disaster law. It then proceeds to critical questions surrounding governance, government interventions to address disaster risk and recovery, lawyers and law schools' roles in disaster response and recovery, the private sector's intersection with disaster law and policy, and the evolution of historic and cultural resources law in response to climate and natural hazards threats. The volume concludes with consideration of how our laws and policies fail vulnerable communities.

PART I CRITICAL PERSPECTIVES ON THE EVOLUTION OF DISASTER LAW AND POLICY

Disaster events are chaotic and messy. They demand urgent response and quick action to save lives and protect communities. These exigencies tend to focus practitioners and scholars on the essential, but now almost routine aspects of disaster response and recovery: removal of debris, reconstruction of schools and homes, and drafting of recovery action plans. Easily overlooked are the fundamental questions about how governmental, nongovernmental, business, and citizen groups carry out the monumental task of disaster response and recovery. We rarely take time to question fundamental assumptions about who has been harmed and the steps necessary to help those persons recover from and prepare for catastrophes. It is, of course, also essential to consider the lessons and insights that the history of disasters – recent and otherwise – offers us. The stories of disaster law's evolution, including both its milestones and its failures, should be instructive, if not sobering.

Donovan Finn creates a genealogy of the current US system for disaster response and recovery to help explain why federal, state, and local governments here in the United States continue to struggle with catastrophic events. This history informs our understanding of a federal government long concerned with sending aid to states in their hour of need and engaged in addressing repetitive disaster risk. But it also tacitly underscores a federal government that, until recently, made little progress in creating a coherent framework for disaster response and community long-term recovery – a framework that sprawls across the Department of Agriculture, to the Federal Emergency Management Agency (FEMA), the US Army Corps of Engineers, the US Department of Housing and Urban Development (HUD), and the Small Business Administration.

First delivered as a lecture in the wake of Hurricane Katrina in 2005, **Mari Matsuda's** indictment of government failure retains its relevance today. As Matsuda explains, pre-Katrina New Orleans was replete with failing schools, gun violence, outdated infrastructure, and stark inequality. In Matsuda's view, New Orleans, both before and after the flood, symbolizes our nation's neglect of the public good. Instead of seeking to protect our most vulnerable, we allow market logic to dictate outcomes so that those with resources amass more wealth (and the security and safety that come with wealth). Those who lack those resources must make do without childhood vaccinations, basic dental care, or adequate educational opportunities. When the flood comes, those without the means to save themselves are left to drown. More than fifteen years later, the fundamental political economy Matsuda describes has not changed.

³⁰ See, e.g., Malcolm Grant, *Land Use Planning and Urban Governance: Lessons from the Pandemic*, 5 J. OF COMP. URB. L. & POL'Y 9, 18-20 (2022) (explaining that the Covid-19 pandemic has highlighted interventions that national and subnational governments, public health actors, and urban planners can pursue to foster urban development investments and practices that will broadly promote the heightened vitality and well-being of our communities).

There are those with the resources to enjoy resilience, perhaps booking a last-minute flight to Cancun if the power goes out at home. When disaster strikes, everyone else can expect to be left behind.

PART II EFFECTIVE GOVERNANCE AS AN IMPERATIVE FOR RESPONSIVE DISASTER LAW AND POLICY

Major disasters and the onset of climate change represent challenges so significant and fundamental that they require governments at all levels to reevaluate their approaches to governance. A few minutes of browsing government websites suggest that cities, states, provinces, special purpose governmental institutions, and national governments recognize these challenges. Local, subnational, and national governments are all pledging to work toward a more sustainable or resilient future for their communities. The pathway to resilience is, however, paved with more than just catchwords and concepts. As scholars have noted, local governments chart their course for resilient futures through careful management and consideration of how they do their work.³¹ Yes, it remains important for governments to operate efficiently, responsively, ethically, inclusively, and with adequate capacity. But can those governments help all citizens thrive if they fail to cultivate new core capacities for operating adaptively, equitably, and regionally – and in some cases nationally and internationally?³²

Susan Cutter argues that our current governance structures are not sufficient to address the threat of disaster. She first observes that disasters are challenging because: (1) by definition they overwhelm local resources and require outside aid; (2) they can have a cascading effect, as when flooding causes a factory to emit dangerous pollutants; (3) they exacerbate existing inequalities of wealth and resources; and (4) they require long-term solutions. Having described some features of the problem, Cutter then observes that our government's ability to devise a cogent response is fractured across federal, state, local, and municipal levels. Also, at every level, public officials may focus more on patching short-term problems than on developing a strategy for mitigating disaster vulnerability. As Cutter points out, elected officials who are worried about votes may not have the right incentives to engage in an effort that involves immediate costs for later benefits. She describes this dynamic as “the single greatest impediment” to wise public policy that could foster a stronger culture of resilience. Cutter concludes by identifying specific laws and policies in need of reform and by urging public officials to adopt the principles outlined in the National Academies Report, *Disaster Resilience: A National Imperative*.

Dawid Sześciło recommends paying close attention to the work of local governments in their efforts to combat hazards associated with the Urban Heat Island (UHI) effect. In the last two decades, cities have sidestepped old doctrines, classifying them as subordinate to their provincial and national counterparts. They have elbowed themselves into national and international discussions regarding climate change and disaster resilience.³³ Sześciło suggests cities are in

³¹ Thomas D. Beamish et al., *Climate Change and Legitimate Governance: Land Use and Transportation Policy in California*, 82 BROOK. L. REV. 725 (2017); J. B. Ruhl, *General Design Principles for Resilience and Adaptive Capacity in Legal Systems – With Applications to Climate Change Adaptation*, 89 N.C. L. REV. 1373 (2011); Sarah J. Adams-Schoen, *Sink or Swim: In Search of a Model for Coastal City Climate Resilience*, 40 COLUM. J. ENVTL. L. 433 (2015); Andrea McArdle, *Storm Surges, Disaster Planning and Vulnerable Populations at the Urban Periphery: Imagining a Resilient New York After Superstorm Sandy*, 50 IDAHO L. REV. 19 (2014).

³² Janice C. Griffith, *Regional Government Reconsidered*, 21 J.L. & POL. 505 (2005); Craig Arnold & L. Gunderson, *Adaptive Law and Resilience*, ENVTL. L. REP. 10426 (2013).

³³ Janne Elisabeth Nijman & Helmut Aust, *The Emerging Roles of Cities in International Law*, in RESEARCH HANDBOOK ON INTERNATIONAL LAW AND CITIES (Helmut P. Aust & Janne E. Nijman eds., 2021).