Urbanization and a rapidly changing climate present enormous challenges to cities everywhere, but particularly in Southeast Asia. In 2017 alone, we witnessed deaths caused by floods in Myanmar and typhoons in the Philippines. These events join the ranks of the more devastating Cyclone Nargis in Myanmar in 2008, the 2011 floods in Thailand and Cambodia, and Typhoon Haiyan in the Philippines in 2013. Much of the suffering and damage from these disasters occurred in urban areas that feature high concentrations of exposed people and assets, often combined with high levels of social vulnerability. However, these climate-related disasters are not unexpected given that the area is one of the world’s most hazard-prone and vulnerable regions (UNU & BEH 2017). Increasing the region’s disaster risk further, climate change will likely lead to an increase in the frequency and intensity of extreme weather events, especially heavy precipitation, storms, and droughts (Hasson et al. 2016).
Urbanization is a key dimension of the region’s ongoing socioeconomic transition—and it has multiple problematic feedbacks with disaster risk. Urban productivity is well recognized as a crucial component of economic growth in the region (Glaeser 2011). But it also creates inequality and social marginalization—which provide the breeding ground for social vulnerability, especially in the disaster context. Scholars agree that climate change threatens social and economic stability and development and that more effective urban planning to mitigate and adapt to the impacts of climate change can promote sustainable urban fabrics (Simonis 2011; Yuen and Kumsaa 2011). Urban policy and investments in infrastructure and service provision that enhance economic productivity through limiting the costs that climate change impacts impose thus contribute directly to the economic well-being of both cities and countries. In addition, improved decision making can better protect the conditions of everyday life for the urban poor, who are usually the hardest hit by natural disasters and have the least personal resilience to facilitate “bouncing back” (Ahsan, Karuppannan, and Kellett 2011; Steele et al. 2012; Whitehead 2013).

The academic literatures on climate-change adaptation and resilience argue that because the effects of climate change represent a failure of the market, planning for these impacts requires the state’s re-engagement as well as new forms of governance (Giddens 2009). Most researchers define climate-change resilience as pertaining to a system’s ability to absorb shocks and adjust to change to maintain its main functions despite hazards and perturbations (Adger et al. 2005; Manyena 2006). Work in this field highlights the need for new governance based on flexible and adaptive institutions capable of dealing with uncertainty and risk in ways that are representative and participatory (Birkmann et al. 2010, 2016; Tyler and Moench 2012). Scholars also argue that governance actions at the municipal level, which are close to the problems on the
ground, have to play a larger role—with a more prominent voice—in addition to national-level action (Barber 2013; UNDP 2012; UN 2017). These recommendations raise both conceptual and practical challenges. On a conceptual level, flexible institutions often do not mesh with the established principles of rational bureaucratic governance and the clear delineation of function and practice that typically underpins good governance reforms. On a practical level, vested political and commercial interests and patronage networks—that hinder grassroots engagement and access to information—undermine transparent and accountable governance (Friend and Moench 2013).

This book responds to a clear need to examine the situation first-hand in cities of the Global South, particularly in the smaller cities of Southeast Asia. The chapters in this volume result from different researchers working in different cities in Southeast Asia with a clear focus on urban vulnerability and resilience to climate change in a specific contemporary situation. Taken together they provide examples of success and failure that can be used to guide future policy regarding civic engagement and the role of social capital—and how to use this knowledge to contribute to a more resilient community.

We hope that our evidence-based research (all of which was conducted within the past two years) can provide policy-makers, scholars, and activists with the kind of knowledge they need to pursue more inclusive decision making around climate-change adaptation. The book contributes to the broader debates in the theoretical and practical spheres around the desirability and/or feasibility of enhancing climate-change resilience in cities of the Global South and elsewhere. Much of the original and insightful work we present here was conducted by young scholars in Southeast Asia who will form the next generation of decision makers in the region and beyond. The Urban Climate Change Resilience in Southeast Asia project (we say more
about this later) supported the work of all of the authors to give them the opportunity to develop
and implement innovative research agendas and create scholarly networks in a subject area and
region of critical importance. This book represents the tangible form of their thinking and
creating so far.

Urbanization Trends and Small and Mid-Sized Cities in Southeast Asia

Over the past years, academic and political attention has focused on megacities and for
good reasons. While the region did not have mega-urban agglomerations with over 10 million
inhabitants around the turn of the century, they’ve rapidly grown since then (e.g., Jakarta,
Manila, Bangkok). These megacities now host over 10 percent of the region’s population. Their
size and rapid growth lead to very specific implications for disaster risk: hazard-zone occupation,
massive social vulnerabilities, and the lack of adequate infrastructure development and planning
(Kraas 2003).

However, small and mid-sized cities in Southeast Asia require special attention. They
have been neglected in academia and policy-making despite their massive demographic
importance: 65 percent of Southeast Asia’s population live in cities smaller than 500,000
residents (UN-DESA 2018). This ratio is projected to decrease by only a few percentage points
by the year 2030. Small and mid-sized cities often receive less political attention than megacities.
They have very limited financial resources and low levels of capacity in their administrations.

Understanding the development opportunities as well as challenges specific to these cities
is all the more relevant considering that small and mid-sized cities have so far received far less
scientific attention than larger cities in the countries of Southeast Asia. Too often lessons transfer
from studies on megacities (e.g., Ho Chi Minh City, Manila, or Bangkok). But secondary cities
work very differently in terms of political attention, human and financial resources, political
autonomy, and so on. Governance processes and adaptive capacities are far less understood in mid-sized cities, so we need empirical analytics like those in this book. Figure 1.1 provides a map of the region that includes the specific locations of the secondary cities our contributors describe and analyze.

**Risk, Vulnerability, Adaptation, and Resilience**

This book follows the conceptual understanding of risk, vulnerability, adaptation, and resilience that the Intergovernmental Panel on Climate Change (IPCC) used in its Fifth Assessment Report. The potential for harm and the expected levels of loss and damage that result from the interaction of vulnerability, exposure, and hazard are the focus of much scholarly discussion (based on Agard et al. 2014, UNISDR 2004; Wisner et al. 2004). Hazards are usually defined as the potential occurrence of a natural or human-induced physical event, trend, or impact that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources (Agard et al. 2014). In the context of this book, natural hazards are often flooding, sea-level rise, or heat stress. Exposure refers to the presence of people, livelihoods, species or ecosystems, environmental functions, services, and resources—that is, infrastructure, or economic, social, or cultural assets in places—that could be adversely affected by one or multiple hazards (based on Agard et al. 2014).

Our authors understand vulnerability as the predisposition of an element (e.g., a human individual, a social group, a city, an economic sector) to suffer harm, loss, and damage when affected by a given hazard (Garschagen 2014, based on Agard et al. 2014; Cardona 2004; Wisner et al. 2004). Vulnerability is often understood in a dialectic relationship with coping capacity, which describes all strengths and resources available within an exposed element (e.g.,
community, sector, organization) to take action that mitigates or reduces the level of harm, loss, and damage experienced by a given hazard event. Coping can take place shortly before, during, and after the hazard strikes. In contrast to adaptation, coping is rather short term or reactive and does not aim to alter the larger principles of its surrounding system (Garschagen 2014).

Adaptation in the context of climate change is a process to reduce risk by reducing exposure, vulnerability, and/or—where possible—mitigating natural hazards (Garschagen 2014). Adaptation therefore refers to the process of adjustment to actual or expected climate and its effects (Agard et al. 2014). There is increasing recognition in academia and practice that adaptation can—or should—follow different paradigms. These can range from resisting to change (e.g., by bulking up cities against increasing flood risk), to facilitating incremental change (e.g., by accommodating future flood risk through flood retention areas), or even fundamental systemic transformation (e.g., by fostering retreat in the most hazard-exposed areas) (Solecki, Pelling, and Garschagen 2017).

Resilience is increasingly used to not only describe system properties but also as a normative guide to climate change proofing. The IPCC defines resilience as the capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance by responding or reorganizing in ways that maintain the systems’ essential function, identity, and structure, while also maintaining their capacity for adaptation, learning, and transformation (Agard et al. 2014). Resilience therefore includes notions of short-term coping capacity as well as longer-term adaptation and transformation. However, in contrast to adaptation, which has a procedural aspect, resilience refers primarily to the capacity of a system. In this book we take this to mean a given city and its social communities.

The UCRSEA Project and Framework
Southeast Asia has experienced high rates of urbanization for the past twenty years and this is expected to continue and even intensify in the future. This growth has implications not only for urban hazard exposure but also for the quality of urbanization and other dimensions of vulnerability—urban residents’ susceptibility as well as state and nonstate capacities to cope with natural hazards and climate-change impacts. In 1950 just 15 percent of Southeast Asia’s population lived in urban areas. The figure went up to 25 percent in 1980 and is roughly 50 percent today (UN-DESA 2018). In absolute figures, this growth corresponded to 170 million urban residents in 1950, 360 million in 1980, and 650 million today (UN-DESA 2018). Forecasts predict that by the middle of this century, 65 percent of the region’s population (i.e., 780 million residents) will live in cities.

The UCRSEA Partnership is a research network that was created several years ago to provide support to and forge connections between scholars, bureaucrats, organizations, and eventually communities interested in working on climate change and urbanization issues in Southeast Asia. There are fifteen formal partners consisting of academic institutions, government ministries, and nongovernmental organizations from Cambodia, Laos, Myanmar, Thailand, and Vietnam as well as three Canadian universities.¹ The project seeks to address climate change and urbanization challenges through a multi-method approach that brings together a range of stakeholders in the region to foster new dialogue, create new knowledge, and build new skills to improve the resilience of urban societies to the impacts of climate change.

UCRSEA partners are encouraged to focus on governance issues (i.e., the process of decision making) and how they affect resilience. In brief, scholars and practitioners are

¹ The UCRSEA Partnership is financially supported via a five-year International Partnership for Sustainable Societies (IPaSS) grant from the International Development Research Centre (IDRC) and the Social Sciences and Humanities Research Council (SSHRC) of Canada.
encouraged to operate from the principle that decision-making processes that build resilience for vulnerable groups are likely to be participatory and inclusive, and allow those individuals and groups most affected by climate hazards to play an active role in determining how best to avoid them. Many authors argue that resilience requires local governments to be accountable to all its citizens—including the most marginalized populations—which is very different than current practices in many states (such as the countries in Asia where the project is based). Proactive attempts to build climate resilience require coordinated actions by many different actors (government agencies, community groups, individuals, private companies, international organizations). New mechanisms for collaboration between these groups are typically needed. UCRSEA supports innovative research, particularly scholarly inquiry that utilizes the partnership’s focus on urbanization as dependent on complex systems and requiring innovative governance based on flexible and adaptive institutions capable of dealing with uncertainty and risk in ways that are representative and participatory (Folke et al. 2005; Tyler and Moench 2012).

**Core Research Questions**

The partnership-supported research seeks to address at least one of the three research questions that form the core of the IPaSS project. These questions emerge from the partnership’s concern with patterns of rapid urban growth, weak governance, and vulnerability to the impacts of climate change in the Mekong region.

1. *How will climate change affect the poverty and vulnerability of urban residents in Southeast Asia?*
Much of the climate-change literature argues that the poor are the most vulnerable to climate change (World Bank 2010). Current definitions and measurements of poverty in urban areas are widely critiqued as being inaccurate and incomplete (Mitlin and Satterthwaite 2013). Cities are also associated with increasing levels of inequality. At the same time, climate change creates new sources of vulnerability that put those who are not currently poor at risk. The nature of urbanization creates new dependencies on complex systems of water, food, energy, and transport, and these systems are often beyond the capacity of individuals and administrations to manage (Friend and Moench 2013). The disruptions caused by climate change create vulnerabilities and thus threaten ambitions for equitable sustainable development. All social organizations become more complex in multi-ethnic, multi-class urban spaces. To ensure effective public policy for poverty reduction, economic growth, social inclusion, and disaster risk reduction, we need to develop practical methodological frameworks for assessing current urban poverty and well-being as well as future vulnerability.

2. What does knowledge, from both academic literature and action research, tell us about creating climate-resilient urban governance that is both inclusive and equitable?

Both urbanization and the challenges of climate change require new forms of governance that highlight the importance of citizen rights and accountable institutions (Giddens 2009; UN-Habitat 2011). Resilience theorists argue that the risks and uncertainties of climate change require a shift from policy and planning processes involving “prediction and action” toward more learning-oriented, flexible, and adaptive processes (Tyler and Moench 2012; Lebel et al. 2006). Cities need more informed, deliberative governance processes that bring together diverse disciplines and experience to create flexible, adaptive, and learning-oriented institutions (Folke et al., 2005; Munton 2003). This approach has been applied elsewhere to create a template for
sharing complex scientific information with lay people in terms that are relevant to their situations. Shared Learning Dialogues (SLDs) represent a process whereby different stakeholders and different knowledges (including scientific disciplines and “local knowledge”) are brought together in a facilitated, informed public dialogue that assesses trends and trajectories, emerging vulnerabilities, and future climate-change risks. In this way, SLDs put urbanization and climate change in the public domain while promoting social learning and innovation. However, the continuing research challenge is how to create public spaces where informed and inclusive discussion can take place in different political contexts.

3. How can we strengthen the agency of individuals, groups, and institutions to improve economic, physical, and social well-being in urban areas, particularly in response to climate change?

Scholars identify a number of reasons that governments in Southeast Asia have been unsuccessful at aiding natural-disaster victims. These include poor coordination, lack of monitoring and evaluation, rigidity, lack of transparency, corruption, and processes by which well-connected individuals (elites) can dominate and corrupt community-level planning and governance (Lebel, Manuta, and Garden 2011; Manuta et al. 2006; Dasgupta and Beard 2007). Governments cannot be expected to independently solve the challenges of adaptation for the region’s urban poor. The challenge lies in how governance actors and institutions can improve adaptive capacities to climate change (Lebel, Manuta, and Garden 2011). In urban areas that are characterized by a diversity of ethnicity, class, and interest, supporting social justice through collective adaptation means that actions must be framed in terms of rights and governance. How urban actors can create new mechanisms of collective decision making, engagement, and linkages to formal state institutions remains a pressing research concern.
Common Themes and Issues of Concern

The chapters in this volume all draw on original and very recent fieldwork conducted in traditionally overlooked cities of Southeast Asia and on the common UCRSEA conceptual framework we elaborated. They each focus on one or more of the three core questions and, consequently, when read together they articulate and highlight recent knowledge and experience dealing with climate-related issues in urban Southeast Asia. Because the authors all seek to integrate material from their fieldwork with the most recent theoretical work around topics such as resilience, vulnerability, and climate, the chapters make significant contributions in terms of both theory and practice. Not only do the authors address key debates occurring in critical geography, political ecology, and elsewhere but they also establish what is actually occurring in secondary cities in current ongoing processes. Many of the scholars included in this book speak with first-hand knowledge of place as they bring a critical eye to the structural dynamics affecting urban residents.

One of the primary concepts almost all of the chapters explore is vulnerability. The notion of vulnerability is situated within frameworks of systems vulnerability, urban livelihoods, political ecology, and structural violence at multiple scales—from the level of neighbourhoods, cities, regions, and beyond. Many of the authors choose to anchor their discussions about vulnerability at more than one interconnecting scale. Through the lens of the poorer neighborhoods in Dawei, for example (chapter 2) both systems and people-centred approaches help explicate people’s vulnerability to climate-change impacts as well as other nonclimatic stresses. The chapter also situates the discourse of vulnerability within the broader transitioning urban systems in Myanmar. Similarly, in chapter 3, Danny Marks uses the perspective of political economy to assess vulnerability in Khon Kaen by focusing on informality in the context
of water access. Legal boundaries, formal rules, and institutional practices can work to increase people’s vulnerability to droughts in slum communities. Angelica de Jesus in chapter 4 takes a supranational perspective and finds that the socioeconomic conditions apparent at the regional and local scales have their roots in international and national labour practices. In fact, the policies around labour and employment practices that national governments implement may most significantly affect the vulnerability of many city residents the most, in this case Myanmar migrants in Phuket. Her work links structural violence to significant levels of deprivation and powerlessness. Building the capacity and reducing the vulnerability of migrants across the region has to address agents, systems, and institutions at a foundational level if their situation is to improve.

A second common theme in most of the chapters deals directly with the tensions arising from the concept of resilience in terms of urbanization and climate change. The growing interest in applying resilience as an approach sometimes fails to achieve intellectual coherence—there are different meanings and various social and political objectives regarding resilience in planning theory and practice (Davoudi 2012; Davoudi et al. 2013; Hambleton 2015). The dominant misuse of resilience promotes a depoliticized, managerial, or technical view of urban planning that neglects fundamental social conflicts and hierarchies of power, especially when it comes to structural inequalities embedded in oppressive power systems (Hambleton 2015). According to most critiques, the resilience framework has been commonly implemented as a reactive and technological approach rather than including power and politics as well as integrating the issues of social, economic, and environmental well-being to plan cities more proactively (Mehmood 2015).
Almost all of the work on urban issues and climate-change impacts that responds to these critiques calls for effective, multi-level, and place-based leadership to respond to inequality, exclusion, and climate change in the context of urban and regional governance. It is important to offer a correction to enhance resilience theory and practice (Hambleton 2015). Resilience should be considered as a long-term strategy to tackle modern urban problems. Rather than focusing on technical solutions suggested by engineers and bureaucrats to manage impacts, resilience must support social innovations through place-based creativity among affected communities and stakeholders to help improve social relations, cultivate empowerment, and fulfill people’s needs (Kelman et al. 2016).

Given their location in one of the most disaster-prone regions in the world, Southeast Asian cities aspire to resilient urban governance to help tackle uncertain hazards in the rapidly growing region. For example, chapter 5 documents how most secondary cities face innumerable challenges. Most structures—including buildings, roads, and water infrastructures—are constructed without meeting regulations or adhering to best practices. The governance of Ninh Binh in peri-urban Vietnam is fraught with tensions between economic development and environmental protection. Many of the community members feel disenfranchised and suffer both economic and physical consequences of a poorly planned Enterprise Zone located within the confines of their community. Rather than reaping the benefits of more secure employment and better infrastructure, community members experience more vulnerability and have few avenues through which to enhance their possible resilience to the impacts of increased flooding, shorter growing seasons, and more polluted air and water.

Graham Reeder, in chapter 6, explores how the city of Bagos in Myanmar might achieve more effective governance in the face of climate impacts by relying on local knowledge and
context-specific solutions to flooding, connecting the historical contexts with broader regional conditions in Myanmar. Within the transitioning and contesting urbanization of Battambang, Cambodia (chapter 7), the resistance of marginalized individuals plays a limited role in local power dynamics and the cultural origins of policy-making—it fosters a more inclusive sphere of decision making to address uneven social and spatial conditions. As Try Thuon and Yanjun Cai note in their richly detailed account of the circumstances facing residents with poor access to land security, the political reality of life in secondary cities can undermine many attempts to enhance livelihoods and future prospects. The elite’s political control, wedded to the economic speculative value of land in even a secondary city, is such that many individuals have to resort to everyday practices of resistance to enhance climate resilience in their circumstances. Even in cities experiencing economic growth while the climate causes hotter and longer periods of drought, there are few efforts to address common issues together through inclusive discussion.

Much of the book’s last section focuses on improving well-being in urban areas to respond to climate change, which generally requires strengthening the agency of individuals, groups, and institutions. Furqan Asif examines material, relational, and subjective well-being through the practices of migrants and nonmigrants in coastal Koh Kong, Cambodia (chapter 8). He finds interesting interactions between migration and social well-being that link to climate vulnerability. In particular, residents in the coastal region that is quickly becoming more urban than rural seem to have very little incentive to work together to create better environmental or livelihood conditions. As in other countries and places, institutions and agencies take a very limited role in building resilience or limiting vulnerability. On the other hand, the opportunities afforded to many young workers to learn new skills, earn additional income, and share knowledge may provide a pathway to improved well-being in the short run as well as greater
voice in their circumstances in the longer term. In Chapter 9 Thao Hoang and Gwenn Pulliat explore the case of Trang An, Vietnam, focusing on ecotourism development as a contextual force that can bring transformation to climate adaptation at the same time that such transformations may lead to emerging vulnerabilities that originate from uneven power dynamics and access to resources. There’s a tension between protecting and developing environmental resources, such as waterways and landscapes. It does not resolve itself equitably between those who own the resources and those who labour in the tourist venues. The result is enhanced vulnerability for some who have limited space to comment on or critique the developers or the state. Finally, in chapter 10, Gwenn Pulliat examines Lao Cai, a city on the border with China, where there are overt contradictions between climate policy implementation and ambitious urban development plans. Here, as in many of our urban settings, the local capacity of resources and knowledge for effective climate-change adaptation and mitigation is critical but absent. Residents affected by increased flooding, landslides, and rampant development investments see little improvement in their livelihood situation while decisions about their city and neighbourhoods take place without consultation. Even in a country with a relatively strong history of environmental legislation as well as investment in public services, urban residents need to uncover new ways to influence practices and policies.

Chapter Summary

Martin, Marschke, and Win (chapter 2) situate their vulnerability analysis in Dawei, a secondary coastal city in southeastern Myanmar that is undergoing rapid urbanization. Looking at the poorer neighborhoods in Dawei, the authors examine both systems and people-centered approaches to understand the vulnerability of residents to climate-change impacts as well as other nonclimatic stresses. Specifically, they describe the exposure of Dawei’s urban systems to
various climatic and nonclimatic stresses and consider how access to infrastructure and services plays a role in local sensitivities, and how this affects people’s daily livelihoods. The chapter also connects the discourse of vulnerability with the broader urban systems in Myanmar. The authors call for improvements in current urban systems and livelihood options to address the drivers of vulnerability.

Marks (chapter 3) utilizes a community-based case study as well as an actor- and discourse-based methodology to investigate how slum communities’ residents in Khon Kaen in northeastern Thailand are exposed to climate risks, particularly drought. He relies on a political economy approach to explore vulnerability in Khon Kaen and investigates informality in the context of water access. He notes that legal boundaries and formal settings can improve people’s vulnerability to droughts in the slum communities and finds that socioeconomic conditions from the national and regional levels significantly affect their vulnerability in the sphere of cities. Informality can be more effective in building resilience compared to the formal approaches.

Through her case study of Myanmar migrants in Phuket, Thailand, De Jesus (chapter 4) links structural violence with vulnerability to address critical concerns with the poverty-neutral approaches of existing climate-resilience frameworks. She relies on qualitative methods, based on interviews with eighty Myanmar migrants in Phuket to assess and demonstrate a dimensional perspective on vulnerability. Existing agents, systems, and institutions in Phuket perpetuate patterns of discrimination, marginalization, and increasing climate vulnerabilities for Myanmar migrants. Transformations of climate resilience must address this constellation of existing frameworks to connect with individuals, community groups, cities, and nations.

Le and Drummond (chapter 5) examine the vulnerabilities and challenges that flooded communities face in the peri-urban area of the city of Ninh Binh in Vietnam. Qualitative and
quantitative data include household interviews, focus group discussion, and key informant interviews with government officials. Applying the Framework for Climate Vulnerability Assessment in urbanizing Ninh Binh, they argue that regulations for unplanned, unregulated buildings and underdeveloped water infrastructures are lacking. In peri-urbanizing Vietnam the tensions between economic development and environmental protection are visible and significant. Inclusive and gender-responsive governance responses are greatly needed.

Using qualitative mixed methods, Graham Reeder (chapter 6) investigates how floods have been governed in the context of climate change near rapidly urbanizing Bago in the greater Yangon region of Myanmar. He explores flooding and the development of a risk-management framework historically as well as the role of political ecology in considering disasters and their extension to urban areas. To implement more effective resilient governance, Reeder calls for the application of local knowledge and context-specific solutions to flooding, connecting the historical contexts with broader regional conditions in Myanmar.

Try Thuon and Yanjun Cai (chapter 7) examine social resilience among residents of Battambang, a Cambodian town undergoing urban growth and increasing regional connectivity. Adopting concepts from the political ecology of resilience and James Scott’s metaphor of everyday forms of resistance, the authors critically examine people’s strategies for dealing with challenges embedded in transitioning and contesting urbanization. Through participant observation, document analysis, focus-groups, and key actor interviews, the authors argue that the resistance of marginalized individuals can play a role in local power dynamics and policy-making to foster a more inclusive sphere of decision making to address uneven social and spatial conditions.
Furqan Asif (chapter 8) applies a comparative approach to examine the material, relational, and subjective well-being of migrants and nonmigrants in Koh Kong. By exploring select fishing villages in coastal Cambodia, he uncovers how migration has affected social well-being, what trade-offs have been made, and what it means to be a migrant for people from fishing villages who face significant environmental and economic changes. He situates migration and social well-being within a broader discourse of climate change in the region.

Many transitioning cities in Southeast Asia encounter dilemmas between growth and ecotourism in the context of climate adaptation. Hoang and Pulliat (chapter 9) adopt a contextual vulnerability framework to examine the urbanizing Truong Yen commune in the Trang An scenic landscape complex, a natural and cultural UNESCO World Heritage site in the Red River Delta of Vietnam. The case of Trang An represents the dynamics of community-level vulnerability. The chapter explores ecotourism development as a contextual force that can bring transformations to climate adaptation. Such transformations also lead to vulnerabilities that originate from power dynamics and uneven accesses to resources.

On the border with China, Lao Cai experiences tension between climate policy implementation and ambitious urban development plans. Gwenn Pulliat (chapter 10) utilizes two interconnected sets of interviews to examine the implementation of environmental policy in this expanding secondary city in Vietnam. In spite of its official willingness and policy endorsement for a more climate resilient urban development, the city’s local capacity regarding resources and knowledge for effective climate-change adaptation and mitigation is critical but absent.

Together the chapters in this book provide readers with a more thorough understanding of vulnerability, governance, and resilience through first-hand evidence and narratives from secondary cities in Southeast Asia. The goal of the book and the UCRSEA project is to suggest
possible next steps, even as urban systems are dramatically changing in the face of socioeconomic and environmental challenges. Much of the research work we present here finds that effective vulnerability assessment and resilient governance require that cities and regions connect to individuals, communities, and beyond to include various voices, utilize different forms of knowledge, and mobilize diverse resources through interdisciplinary and multi-sector approaches. Those who are directly affected by climate change (socially, economically, and ecologically) need to be involved in discussions about climate-adaptation strategies (Evans 2011). A major challenge to such participation is that in cities of the Global South both large and small, there are typically very limited opportunities to contribute to dialogue on local climate issues. As our authors document through myriad examples, problems arise from a lack of willingness to encourage people to participate, socio-spatial restrictions that make participation difficult, or institutions that fail to facilitate public discussion and input.

It is clear that a fundamental element of resilience and one reason that there are often operational problems and misunderstandings about its measurement and significance is the fact that resilience is an overarching concept with multiple meanings that depend on how it is used (Bahadur and Thornton 2015). The authors strive to include in their chapters clear definitions of resilience and what aspect of resilience is being measured because these elements are subject to change depending on local context (Carpenter et al. 2001). In many circumstances, in fact, resilience at one scale can actually come at the expense of resilience at another scale (Chelleri et al. 2015). This means, as many of the scholars in the book note, that careful consideration must be given to who benefits and who loses when applications of resilience are applied. By addressing the shortfalls of the stand-alone perspectives of engineering, ecological, and social types of resilience, urban resilience can and should evolve as a proactive rather than reactive
view of planning by transforming and empowering local communities (Davoudi et al. 2013).
Communities should serve as a significant actor in resilient place-making through their capacity for learning (preparedness), robustness (persistence), and ability to adapt and innovate changes (transformability).

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Figure 1.1. Map of case-study cities in southeast Asia